

# 2017年产品目录

## 2017 Product Catalogue



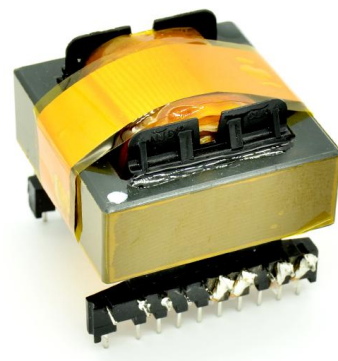
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# THT POWER TRANSFORMERS

## EE Series – Vertical

### Features

- High power density and high efficiency/高功率密度，高效率
- Multiple-output is available/多路输出
- Operating frequency up to 500kHz/最大工作频率 500kHz
- Power up to 10kW/最大功率 10kW
- High power series EE55, EE65, EE70/大功率系列 EE55, EE65, EE70
- Custom designs available/客户定制



### Application

- Solar inverter, Server, Amplifier/太阳能逆变器，服务器，音响功放
- Network, POE, Router/网络产品，POE，路由器
- Elevator emergency power supply, /电梯应急电源
- Electric vehicle charging pile/电动汽车充电桩电源
- Medical instrument power supply/医疗仪器电源
- Variable-frequency drive/变频器
- Industrial power supply/工业电源
- High end LED power supply/高端 LED 电源
- High end charger and USB/高端 USB 充电器
- Smart home electronics/智能家用电器
- Electrical power equipment/电力设备
- Test instrument/测试仪器

### Specifications

| Size   | Fig . | A (Max.) | B (Max.) | C (Max.) | D (Nom.) | E (Nom.) | F (Nom.) | Pins (Optional) | fsw (kHz) | Power (W) <sup>2</sup> |
|--------|-------|----------|----------|----------|----------|----------|----------|-----------------|-----------|------------------------|
| EEH8.3 | 1     | 10.0     | 10.0     | 7.5      | 2.5      | 6.0      | Φ0.5     | 3+3             | 100       | 3                      |
| EEH10  | 2     | 12.0     | 14.0     | 12.0     | 2.5      | 10.5     | Φ0.5     | 4+4             | 100       | 3-5                    |
| EEH13  | 3     | 16.0     | 16.0     | 15.0     | 2.54     | 10.2     | Φ0.5     | 5+5             | 100       | 5-10                   |
| EEH16  | 2     | 18.0     | 16.0     | 17.0     | 3.0      | 11.0     | Φ0.6     | 4+4             | 100       | 15-20                  |
| EEH19  | 4     | 23.0     | 19.0     | 18.0     | 5.0      | 13.2     | Φ0.7     | 4+4             | 100       | 20-30                  |
| EEH25  | 5     | 28.0     | 28.0     | 24.0     | 5.0      | 15.1     | Φ0.8     | 5+5             | 100       | 30-50                  |
| EEH30  | 6     | 34.0     | 38.0     | 23.0     | 5.0      | 25.0     | Φ0.8     | 6+6             | 100       | 50-100                 |
| EEH40  | 7     | 43.0     | 36.0     | 31.0     | 5.0      | 25.8     | Φ0.8     | 7+7             | 100       | 200-500                |
| EEH55  | 8     | 57.0     | 61.0     | 53.0     | 5.0      | 45.0     | Φ1.0     | 10+10           | 100       | 1000-3000              |
| EEH65  | 9     | 69.0     | 67.0     | 61.0     | 5.0      | 45.5     | Φ1.0     | 10+10           | 100       | 3000-5000              |
| EEH70  | 10    | 77.0     | 70.0     | 70.0     | 5.0      | 50.0     | Φ1.2     | 9+9             | 100       | 5000-8000              |

1. Operating Temperature: -40°C~+125°C(Includes temperature when the coil is heated).

2. Output power is only for reference at switching frequency 100kHz.

# THT POWER TRANSFORMERS

## EE Series – Vertical

### Mechanical

Fig. 1

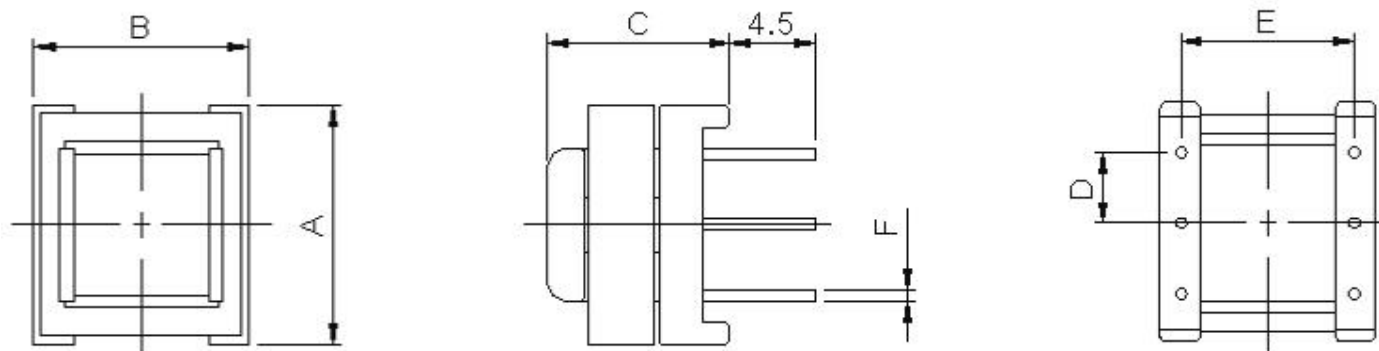


Fig. 2

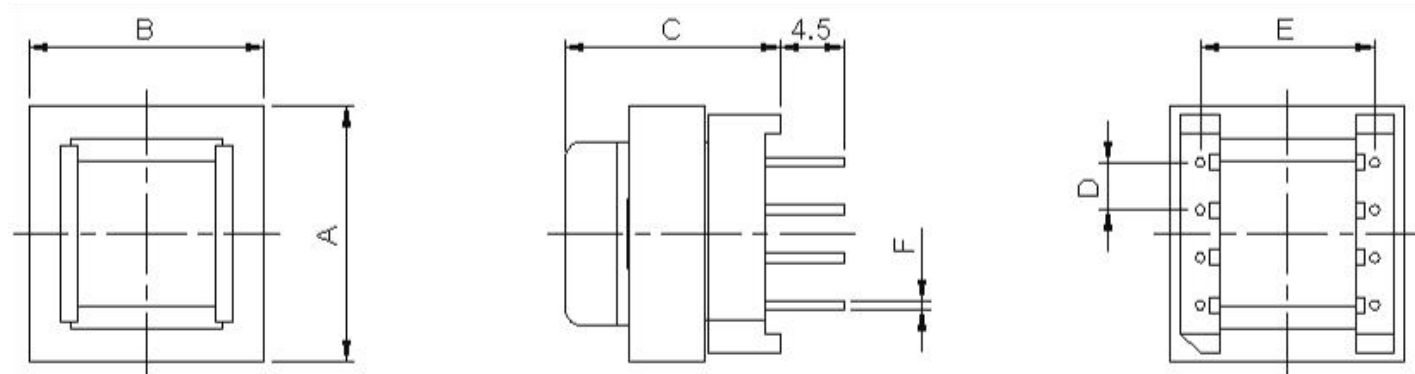


Fig. 3

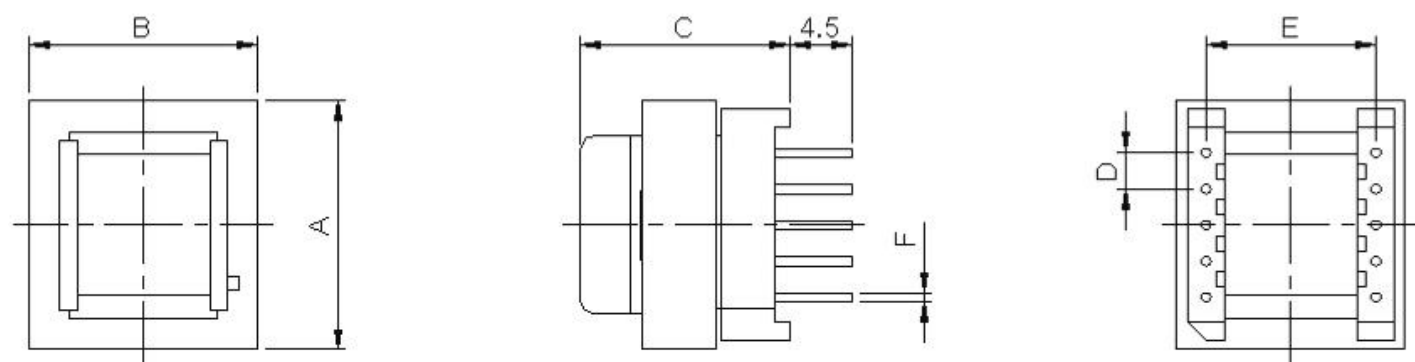
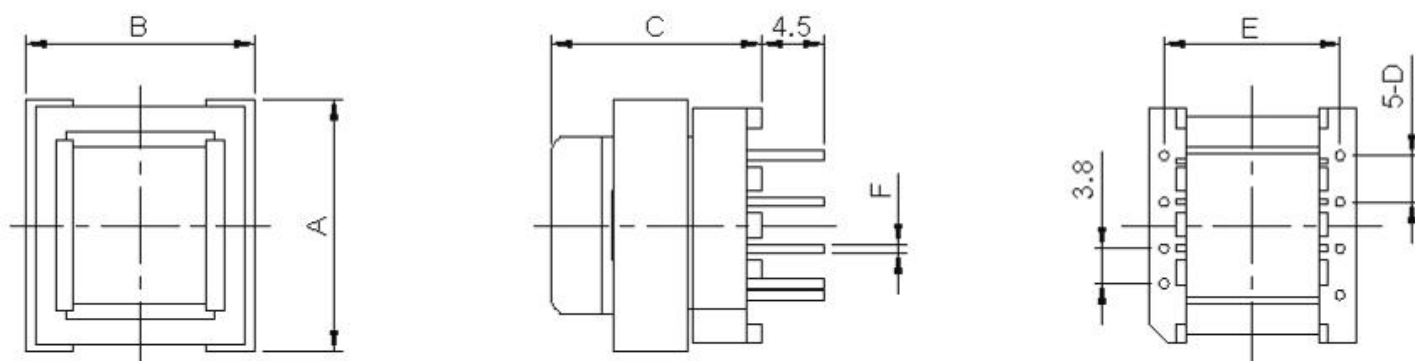


Fig. 4



# THT POWER TRANSFORMERS

## EE Series – Vertical

Fig. 5

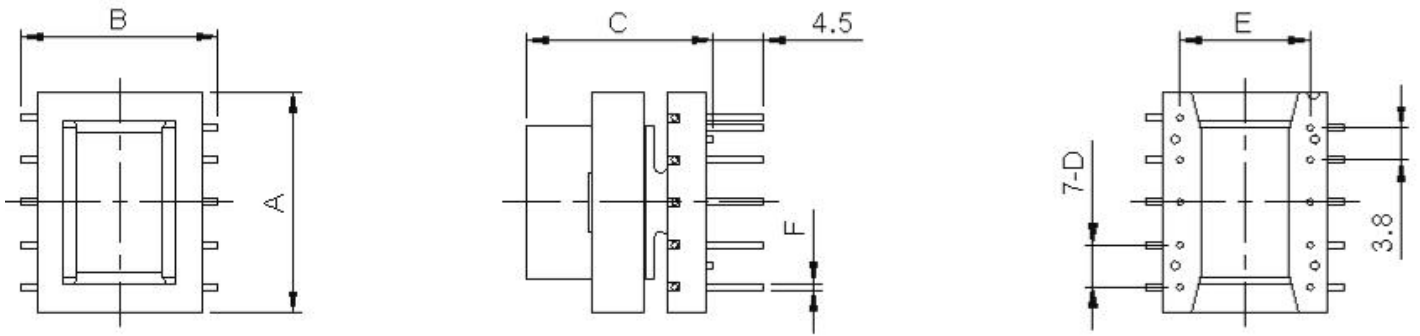


Fig. 6

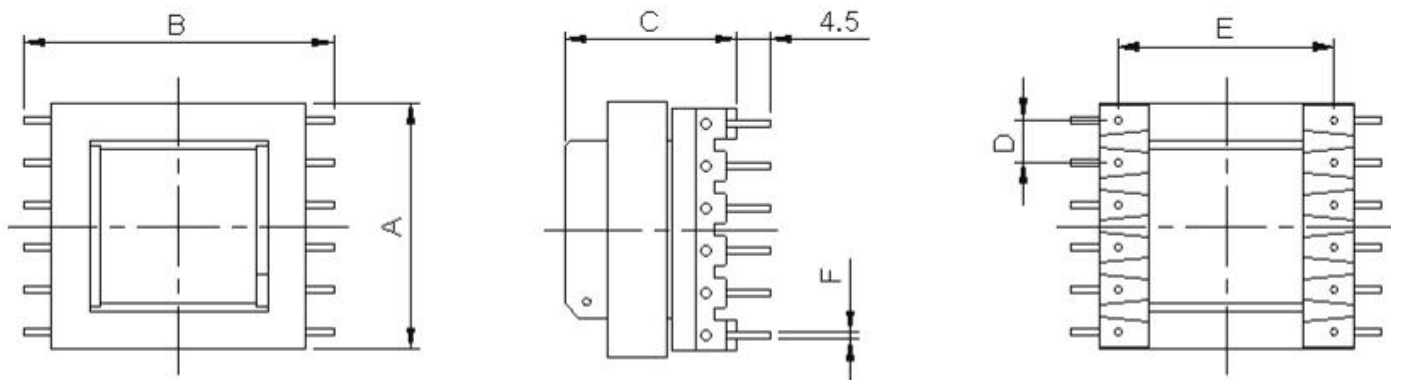


Fig. 7

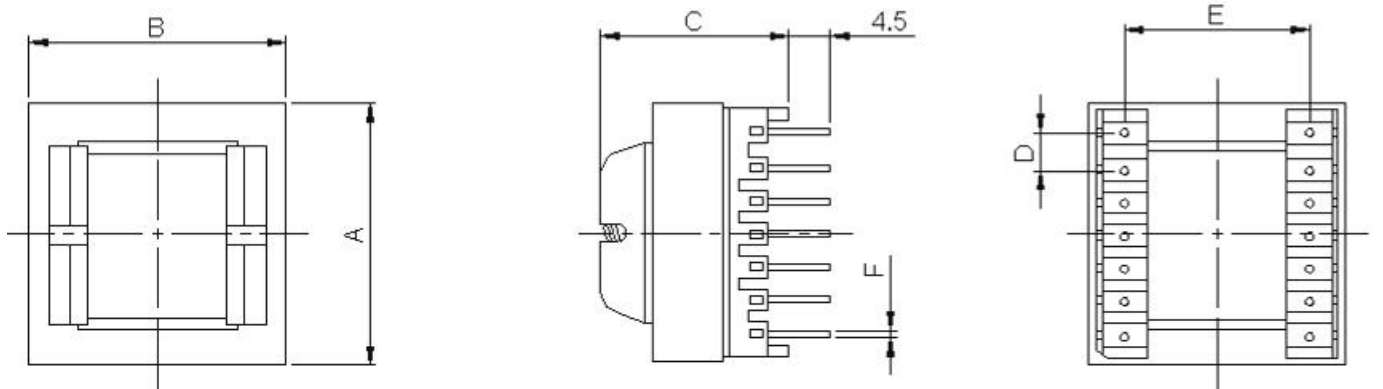
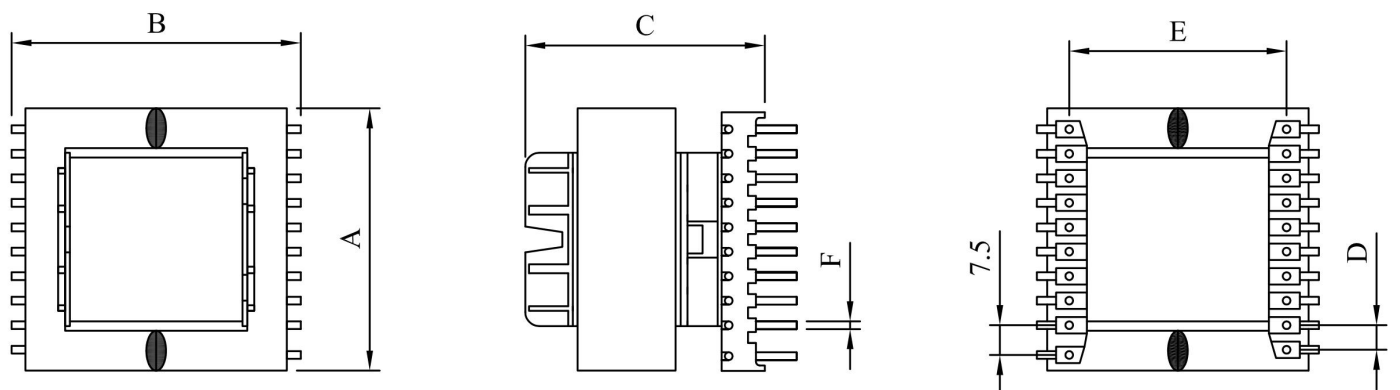


Fig. 8 EEH55



# THT POWER TRANSFORMERS

## EE Series – Vertical

Fig. 9 EEH65

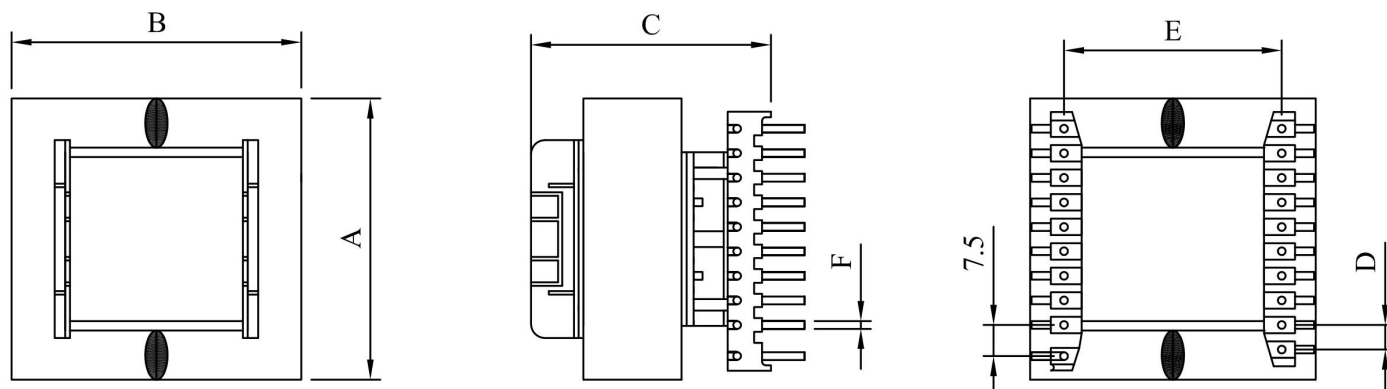
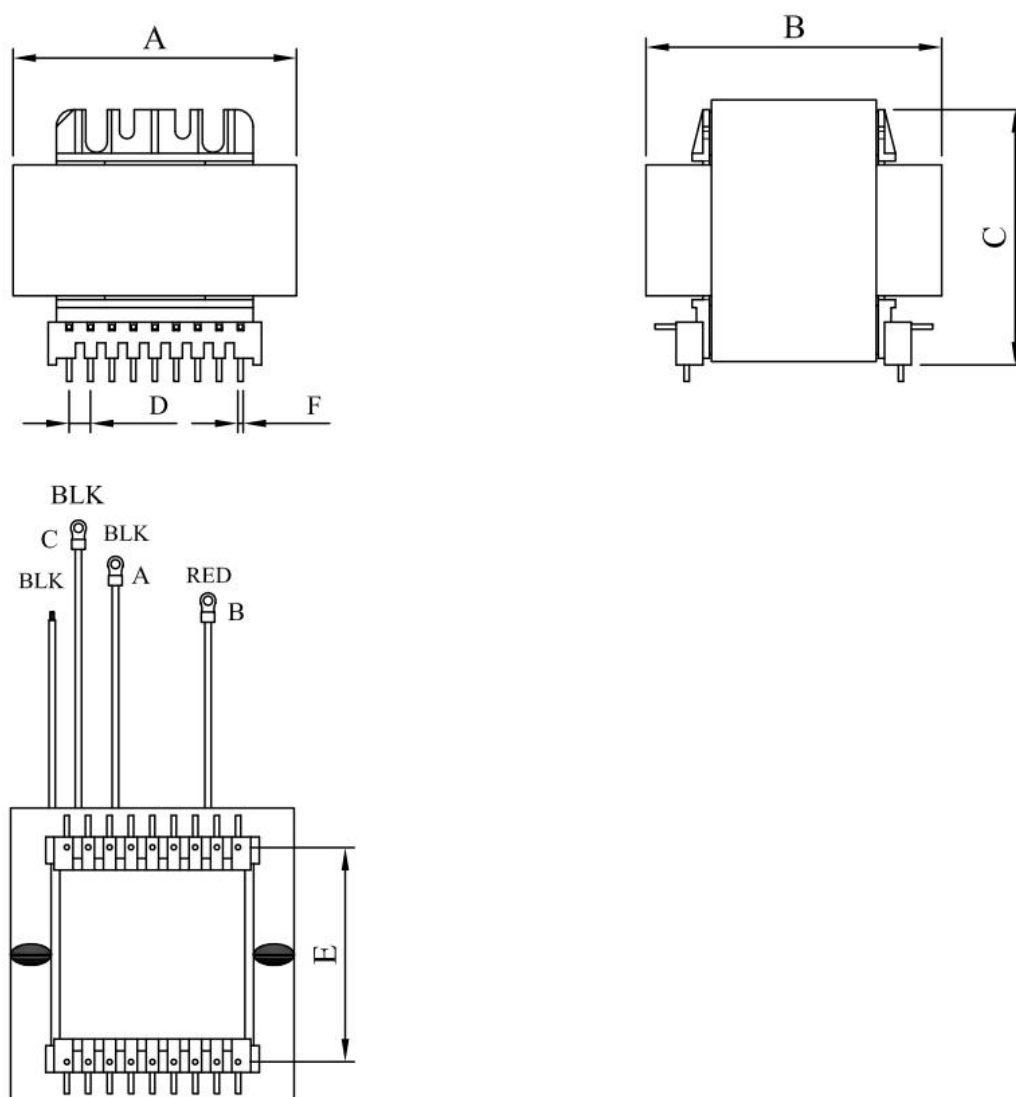


Fig. 10 EEH70



# THT POWER TRANSFORMERS

## EE Series – Vertical

### Features

- High power density and high efficiency/高功率密度，高效率
- Multiple-output is available/多路输出
- Operating frequency up to 500kHz/最大工作频率 500kHz
- Power up to 3kW/最大功率 3kW
- Custom designs available/客户定制



### Application

- Solar inverter, Server, Amplifier/太阳能逆变器，服务器，音响功放
- Network, POE, Router/网络产品，POE，路由器
- Elevator emergency power supply, /电梯应急电源
- Electric vehicle charging pile/电动汽车充电桩电源
- Medical instrument power supply/医疗仪器电源
- Variable-frequency drive/变频器
- Industrial power supply/工业电源
- High end LED power supply/高端 LED 电源
- High end charger and USB/高端 USB 充电器
- Smart home electronics/智能家用电器
- Electrical power equipment/电力设备
- Test instrument/测试仪器

### Specifications

| Size  | Fig. | A<br>(Max.) | B<br>(Max.) | C<br>(Max.) | D<br>(Nom.) | E<br>(Nom.) | F<br>(Nom.) | Pins<br>(Optional) | fsw<br>(kHz) | Power<br>(W) <sup>2</sup> |
|-------|------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------|--------------|---------------------------|
| EE8.3 | 1    | 10.0        | 10.0        | 10.0        | 2.5         | 6.0         | Φ0.5        | 3+3                | 100          | 3-5                       |
| EE10  | 2    | 12.0        | 12.0        | 13.0        | 2.5         | 8.0         | Φ0.5        | 4+4                | 100          | 5-10                      |
| EE13  | 3    | 14.0        | 14.0        | 13.0        | 2.5         | 8.5         | Φ0.6        | 5+5                | 100          | 10-15                     |
| EE16  | 3    | 19.0        | 15.0        | 18.0        | 3.2         | 10.5        | Φ0.6        | 5+5                | 100          | 15-20                     |
| EE19  | 3    | 24.0        | 18.0        | 19.0        | 3.8         | 12.6        | Φ0.7        | 5+5                | 100          | 20-30                     |
| EE25  | 3    | 30.0        | 30.0        | 24.0        | 5.0         | 15.2        | Φ0.8        | 5+5                | 100          | 30-50                     |
| EE30  | 4    | 33.0        | 32.0        | 24.0        | 5.0         | 20.0        | Φ0.8        | 6+6                | 100          | 50-100                    |
| EE40  | 4    | 43.0        | 30.0        | 36.0        | 5.0         | 22.5        | Φ0.8        | 6+6                | 100          | 150-300                   |
| EE42  | 5    | 47.0        | 36.0        | 51.0        | 5.0         | 27.5        | Φ1.0        | 9+9                | 100          | 300-500                   |

1. Operating Temperature: -40°C~+125°C(Includes temperature when the coil is heated).

2. Output power is only for reference at switching frequency 100kHz.

# THT POWER TRANSFORMERS

## EE Series – Vertical

### Mechanical

Fig. 1

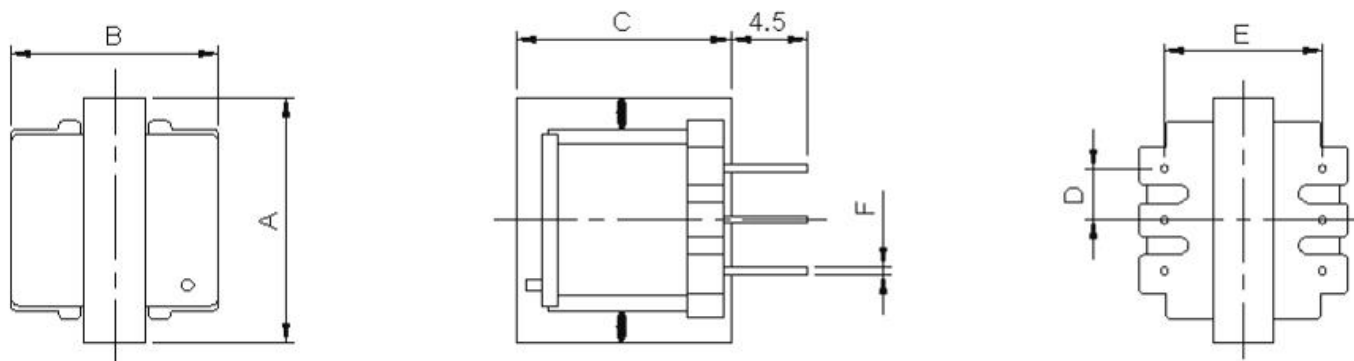


Fig. 2

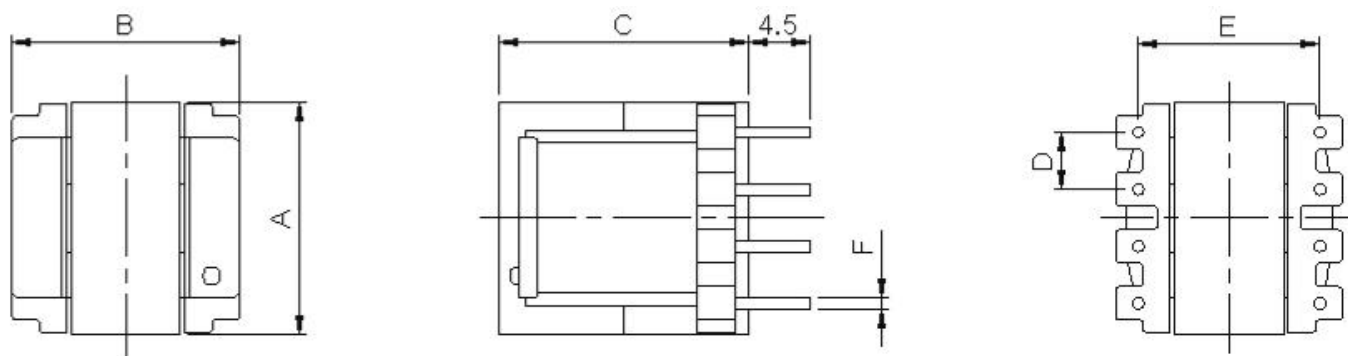


Fig. 3

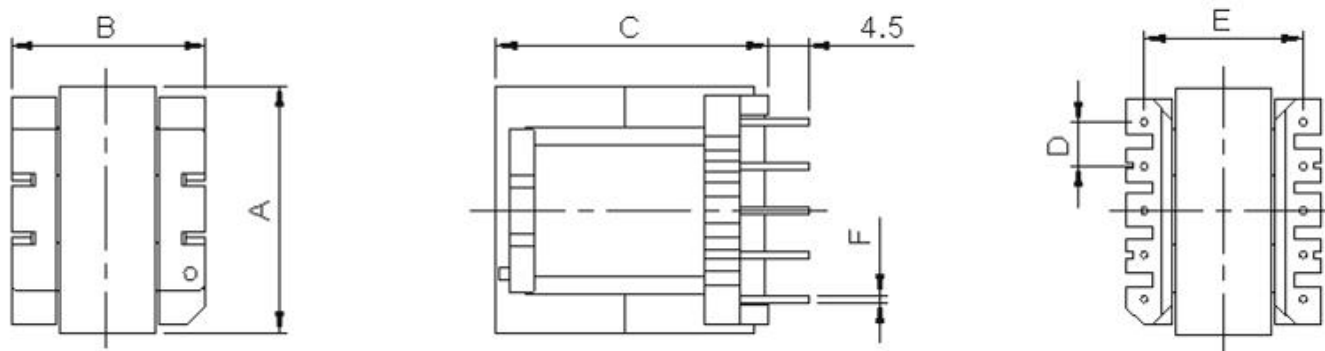
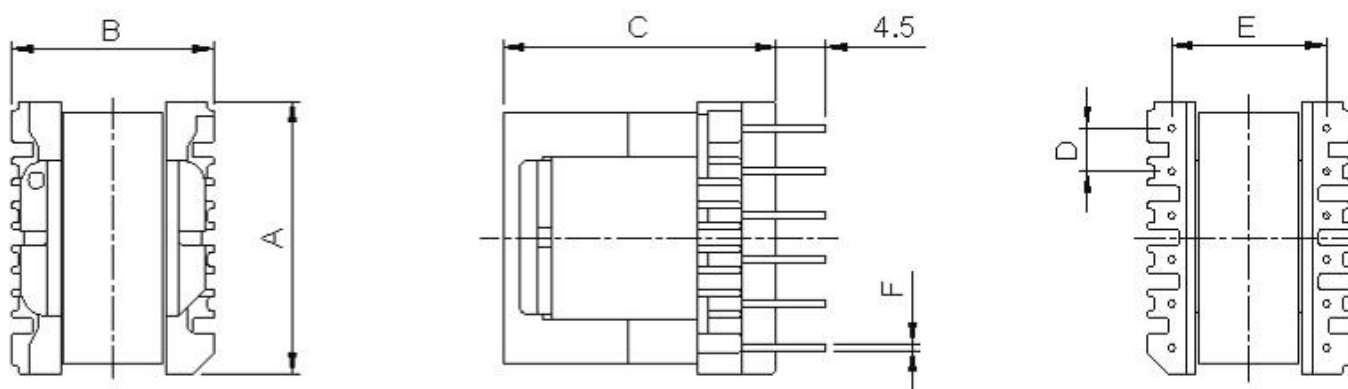


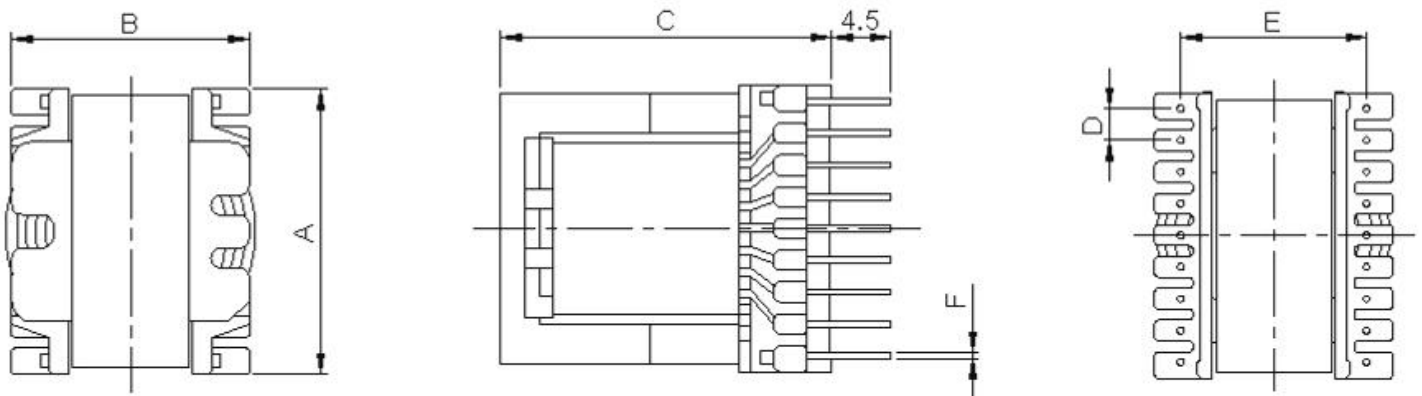
Fig. 4



# THT POWER TRANSFORMERS

## EE Series – Vertical

Fig. 5



# THT POWER TRANSFORMERS

## ER Series – Vertical

### Features

- High power density and high efficiency/高功率密度，高效率
- Multiple-output is available/多路输出
- Operating frequency up to 500kHz/最大工作频率 500kHz
- Power up to 5kW/最大功率 5kW
- High power series ER49, ER53/大功率系列 ER49, ER53
- Custom designs available/客户定制



### Application

- Solar inverter, Server, Amplifier/太阳能逆变器，服务器，音响功放
- Network, POE, Router/网络产品，POE，路由器
- Elevator emergency power supply, /电梯应急电源
- Medical instrument power supply/医疗仪器电源
- Variable-frequency drive/变频器
- Industrial power supply/工业电源
- High end LED power supply/高端 LED 电源
- High end charger and USB/高端 USB 充电器
- Smart home electronics/智能家用电器
- Electrical power equipment/电力设备
- Test instrument/测试仪器

### Specifications

| Size   | Fig. | A<br>(Max.) | B<br>(Max.) | C<br>(Max.) | D<br>(Nom.) | E<br>(Nom.) | F<br>(Nom.) | Pins<br>(Optional) | fsw<br>(kHz) | Power<br>(W) <sup>2</sup> |
|--------|------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------|--------------|---------------------------|
| ER28-1 | 1    | 29.5        | 25.0        | 22.5        | 5.0         | 17.5        | Φ0.8        | 5+5                | 100          | 30-50                     |
| ER28-2 | 1    | 29.5        | 25.0        | 32.0        | 5.0         | 17.5        | Φ0.8        | 5+5                | 100          | 40-60                     |
| ER28L  | 3    | 31.5        | 28.5        | 37.5        | 5.0         | 20.0        | Φ0.8        | 6+6                | 100          | 40-80                     |
| ER35   | 3    | 36.5        | 30.0        | 38.0        | 5.0         | 22.5        | Φ1.0        | 6+6                | 100          | 200-400                   |
|        | 3    | 36.5        | 30.0        | 45.0        | 5.0         | 22.5        | Φ1.0        | 6+6                | 100          | 200-500                   |
| ER35L  | 2    | 36.5        | 30.0        | 45.0        | 5.0         | 22.5        | Φ1.0        | 7+7                | 100          | 200-500                   |
|        | 4    | 41.0        | 34.0        | 46.0        | 5.0         | 25.2        | Φ1.0        | 6+6                | 100          | 400-800                   |
| ER39   | 2    | 41.0        | 34.0        | 52.0        | 5.0         | 25.2        | Φ1.0        | 7+7                | 100          | 400-800                   |
|        | 5    | 44.0        | 32.0        | 49.5        | 5.0         | 25.0        | Φ1.0        | 7+7                | 100          | 500-1000                  |
| ER42   | 5    | 44.0        | 32.0        | 49.5        | 5.0         | 25.0        | Φ1.0        | 7+7                | 100          | 500-1000                  |
| ER49   | 6    | 51.5        | 38.5        | 57.5        | 5.0         | 27.5        | Φ1.0        | 9+9                | 100          | 1000-2000                 |
| ER53   | 7    | 56.0        | 41.5        | 51.5        | 5.0         | 32.5        | Φ1.0        | 9+9                | 100          | 3000-5000                 |

1. Operating Temperature: -40°C~+125°C(Includes temperature when the coil is heated).

2. Output power is only for reference at switching frequency 100kHz.

# THT POWER TRANSFORMERS

## ER Series – Vertical

### Mechanical

Fig. 1

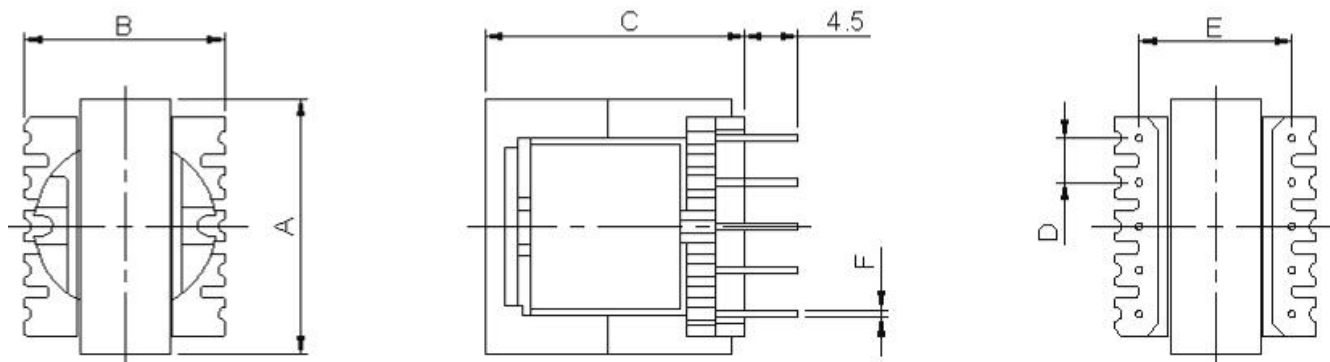


Fig. 2

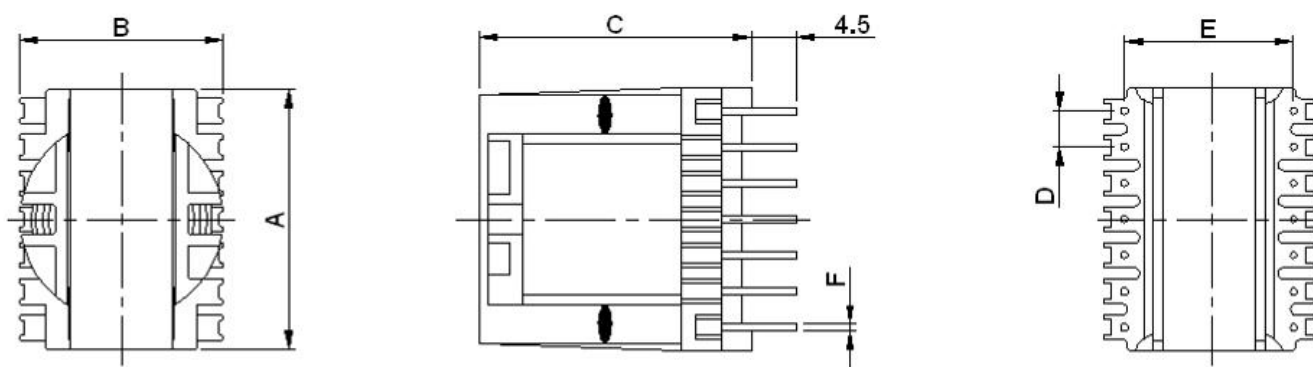


Fig. 3

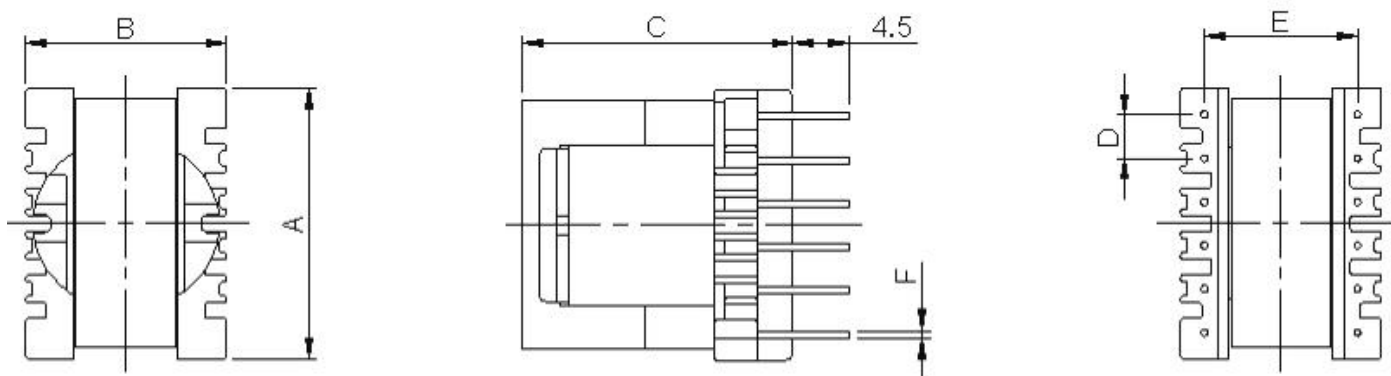
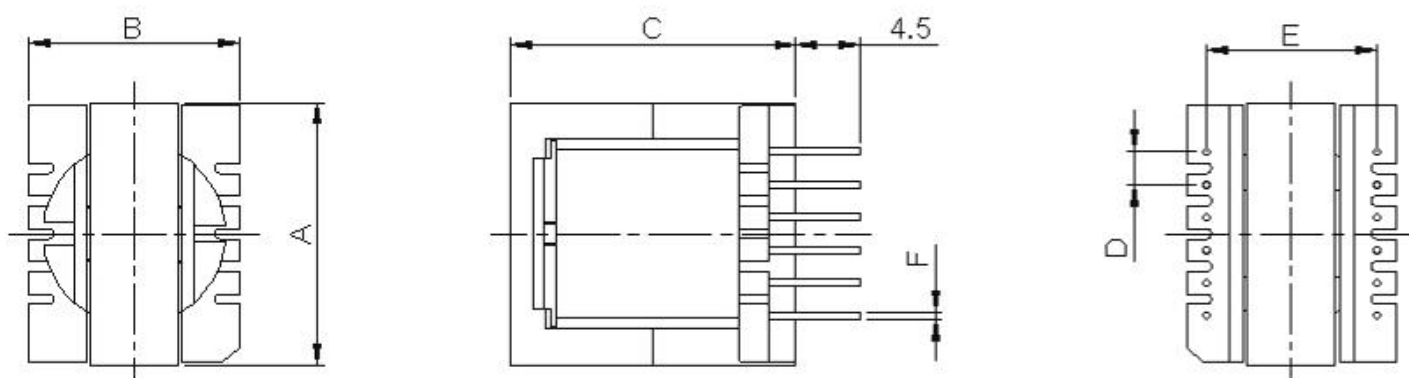


Fig. 4



# THT POWER TRANSFORMERS

## ER Series – Vertical

Fig. 5

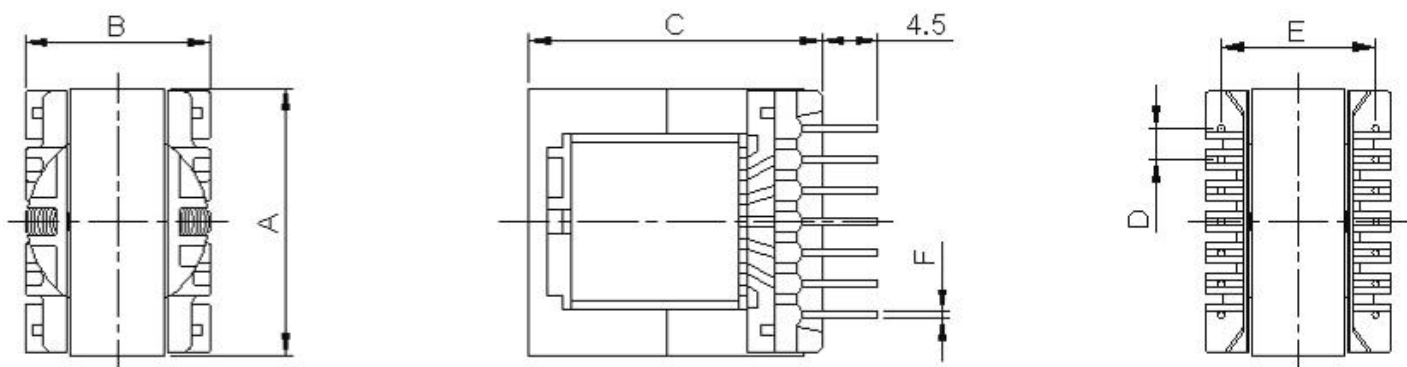


Fig. 6 ER49

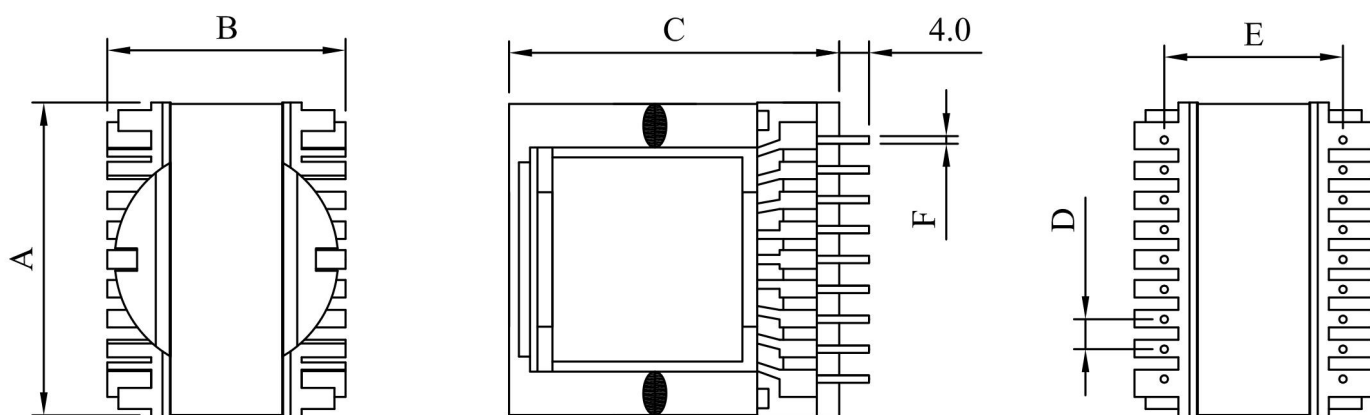
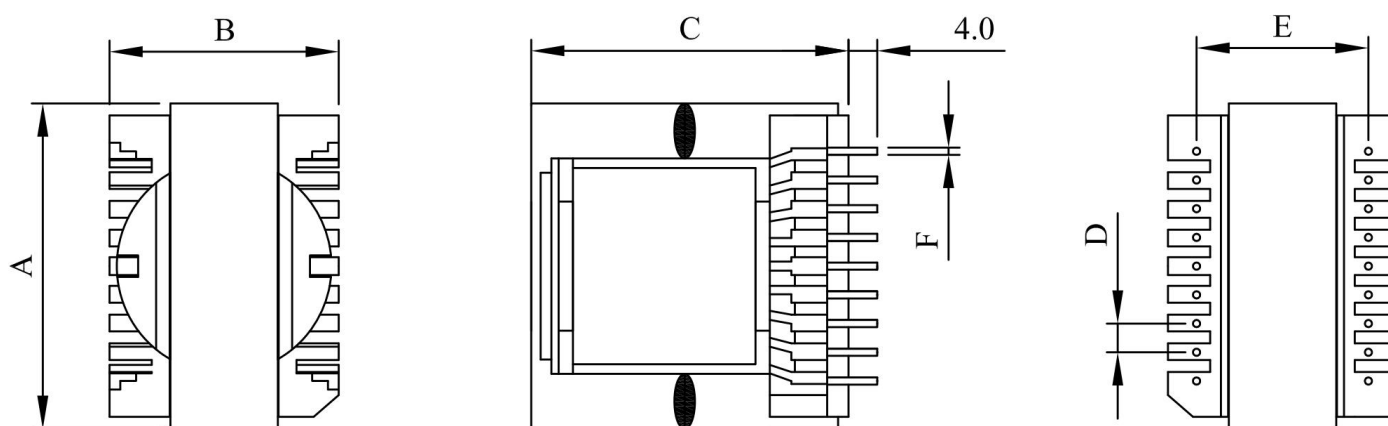


Fig. 7 ER53



# THT POWER TRANSFORMERS

## ER Series – Horizontal

### Features

- High power density and high efficiency/高功率密度，高效率
- Multiple-output is available/多路输出
- Operating frequency up to 500kHz/最大工作频率 500kHz
- Power up to 3kW/最大功率 3kW
- Custom designs available/客户定制



### Application

- Solar inverter, Server, Amplifier/太阳能逆变器，服务器，音响功放
- Network, POE, Router/网络产品，POE，路由器
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- Medical instrument power supply/医疗仪器电源
- Variable-frequency drive/变频器
- Industrial power supply/工业电源
- High end LED power supply/高端 LED 电源
- High end charger and USB/高端 USB 充电器
- Smart home electronics/智能家用电器
- Electrical power equipment/电力设备
- Test instrument/测试仪器

### Specifications

| Size    | Fig. | A<br>(Max.) | B<br>(Max.) | C<br>(Max.) | D<br>(Nom.) | E<br>(Nom.) | F<br>(Nom.) | Pins<br>(Optional) | fsw<br>(kHz) | Power<br>(W) <sup>2</sup> |
|---------|------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------|--------------|---------------------------|
| ERH28   | 1    | 31.0        | 31.0        | 26.0        | 5.0         | 25.0        | Φ0.8        | 6+6                | 100          | 40-60                     |
| ERH28-1 | 2    | 34.0        | 36.0        | 25.0        | 4.0         | 26.5        | Φ0.8        | 9+9                | 100          | 40-60                     |
| ERH28-2 | 3    | 30.0        | 35.0        | 25.0        | Fig.3       | Fig.3       | Φ0.5        | 13+11              | 100          | 40-60                     |
| ERH28L  | 1    | 32.0        | 39.0        | 28.0        | 5.0         | 30.0        | Φ0.8        | 6+6                | 100          | 40-80                     |
| ERH34   | 4    | 44.0        | 37.5        | 25.5        | 2.5         | 25.5        | Φ0.8        | 16+16              | 100          | 80-150                    |
| ERH35   | 5    | 42.0        | 45.0        | 33.0        | 5.0         | 35.0        | Φ1.0        | 8+8                | 100          | 200-400                   |
| ERH40   | 5    | 42.0        | 48.0        | 33.0        | 5.0         | 35.2        | Φ1.0        | 8+8                | 100          | 400-800                   |
| ERH42   | 5    | 44.5        | 46.0        | 36.0        | 5.0         | 35.0        | Φ1.0        | 8+8                | 100          | 800-1500                  |
| ERH42-2 | 6    | 44.0        | 46.0        | 39.0        | 5.0         | 34.5        | Φ1.0        | 7+7                | 100          | 1000-3000                 |

1. Operating Temperature: -40°C~+125°C(Includes temperature when the coil is heated).

2. Output power is only for reference at switching frequency 100kHz.

# THT POWER TRANSFORMERS

## ER Series – Horizontal

### Mechanical

Fig. 1

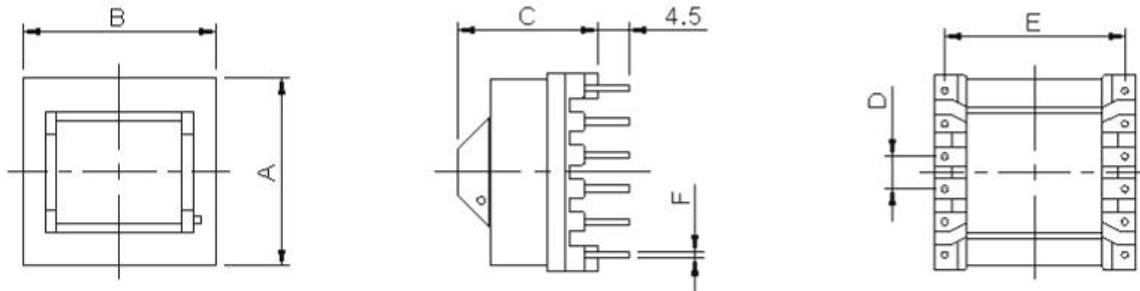


Fig. 2

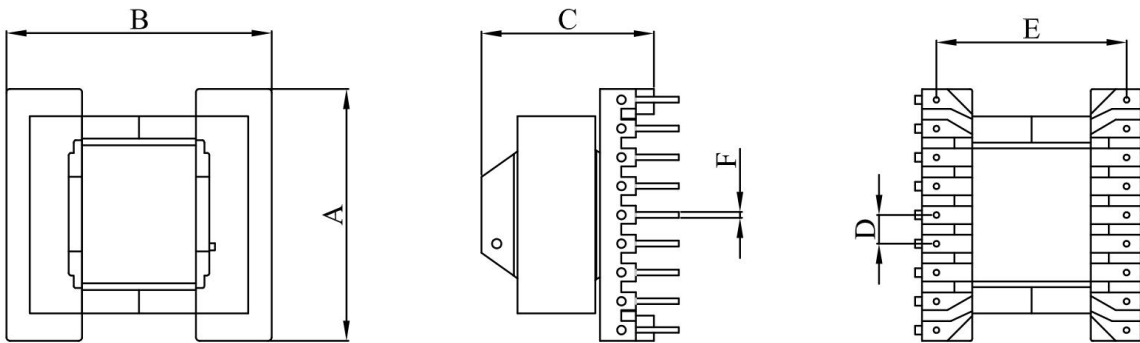


Fig. 3

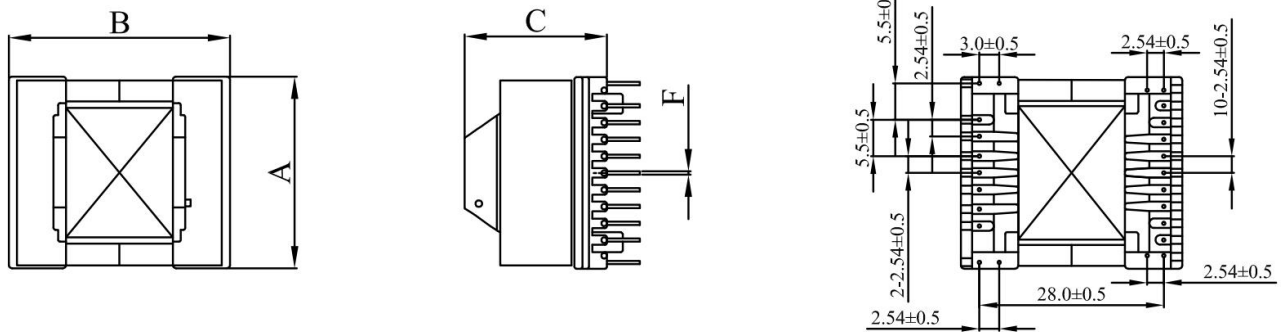
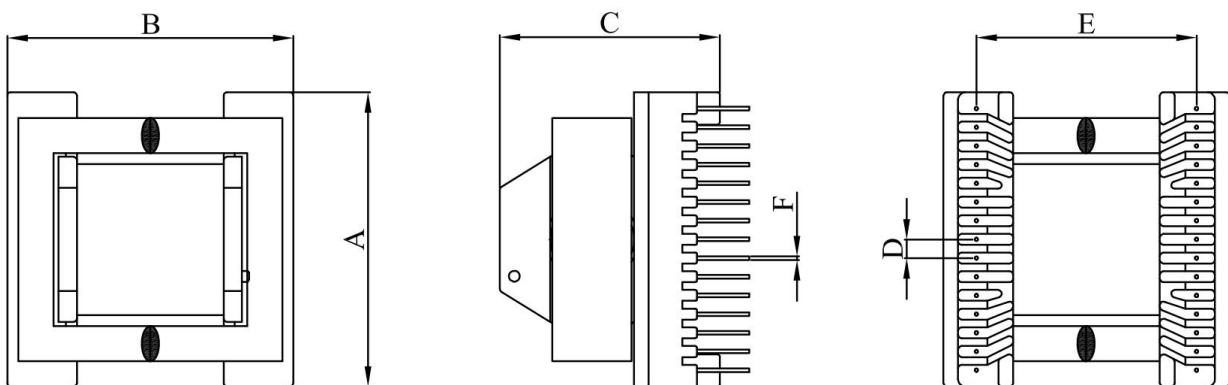


Fig. 4



# THT POWER TRANSFORMERS

## ER Series – Horizontal

Fig. 5

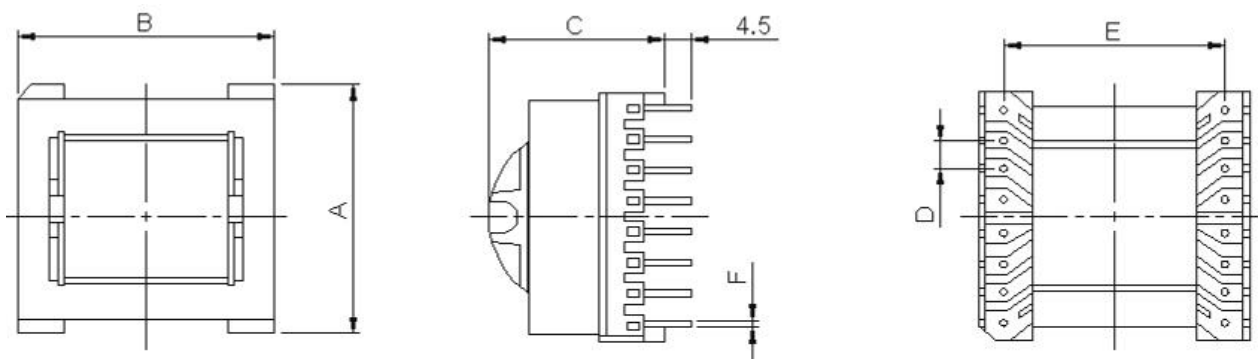
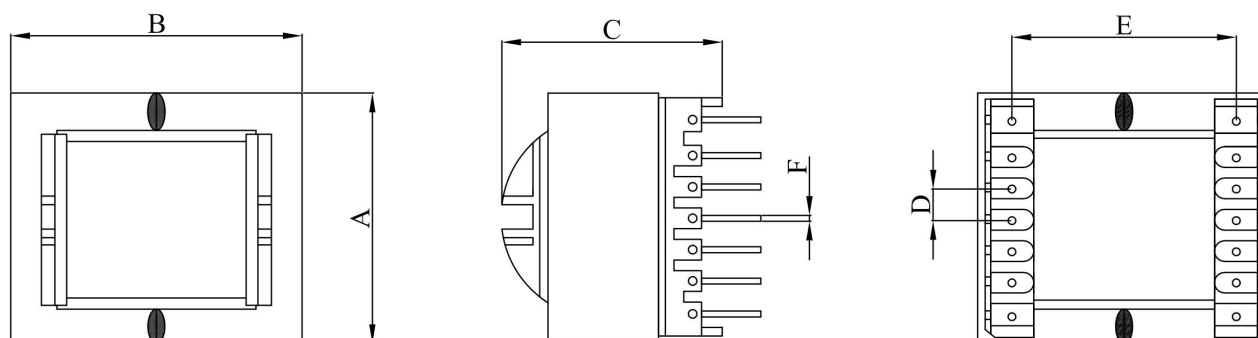


Fig. 6



# THT POWER TRANSFORMERS

## ETD Series

### Features

- High power density and high efficiency/高功率密度，高效率
- Multiple-output is available/多路输出
- Operating frequency up to 500kHz/最大工作频率 500kHz
- Power up to 6kW/最大功率 6kW
- Custom designs available/客户定制



### Application

- Solar inverter, Server, Amplifier/太阳能逆变器，服务器，音响功放
- Network, POE, Router/网络产品，POE，路由器
- Elevator emergency power supply, /电梯应急电源
- Electric vehicle charging pile/电动汽车充电桩电源
- Medical instrument power supply/医疗仪器电源
- Variable-frequency drive/变频器
- Industrial power supply/工业电源
- High end LED power supply/高端 LED 电源
- High end charger and USB/高端 USB 充电器
- Smart home electronics/智能家用电器
- Electrical power equipment/电力设备
- Test instrument/测试仪器

### Specifications

| Size    | Fig. | A (Max.) | B (Max.) | C (Max.) | D (Nom.) | E (Nom.) | F (Nom.) | Pins (Optional) | fsw (kHz) | Power (W) <sup>2</sup> |
|---------|------|----------|----------|----------|----------|----------|----------|-----------------|-----------|------------------------|
| ETD29   | 1    | 36.5     | 36.5     | 26.0     | 5.0      | 25.5     | Φ0.8     | 7+7             | 100       | 30-60                  |
| ETD34-1 | 1    | 41.0     | 41.0     | 32.0     | 5.0      | 25.5     | Φ0.8     | 7+7             | 100       | 80-150                 |
| ETD34-2 | 2    | 36.0     | 36.0     | 27.5     | 5.0      | 30.2     | Φ0.8     | 7+7             | 100       | 80-150                 |
| ETD34-3 | 3    | 36.0     | 36.0     | 26.0     | 5.5      | 28.0     | Φ0.8     | 6+6             | 100       | 80-150                 |
| ETD34-4 | 4    | 44.0     | 37.5     | 25.5     | 2.5      | 25.5     | Φ0.8     | 16+16           | 100       | 80-150                 |
| ETD39   | 5    | 45.5     | 45.0     | 37.0     | 5.0      | 30.2     | Φ1.0     | 8+8             | 100       | 150-300                |
| ETD44-1 | 6    | 51.0     | 52.5     | 41.0     | 5.0      | 35.8     | Φ1.0     | 9+9             | 100       | 300-1000               |
| ETD44-2 | 7    | 46.0     | 48.0     | 29.0     | 5.0      | 35.0     | Φ0.8     | 8+8             | 100       | 300-1000               |
| ETD49   | 8    | 56.0     | 58.0     | 42.0     | 5.0      | 41.0     | Φ1.0     | 10+10           | 100       | 800-2000               |
| ETD54   | 9    | 62.5     | 62.5     | 46.0     | 5.08     | 46.0     | Φ1.0     | 11+11           | 100       | 2000-4000              |
| ETD59   | 10   | 68.0     | 67.5     | 50.0     | 5.08     | 50.8     | Φ1.0     | 13+13           | 100       | 3000-6000              |

1. Operating Temperature: -40°C~+125°C(Includes temperature when the coil is heated).

2. Output power is only for reference at switching frequency 100kHz.

# THT POWER TRANSFORMERS

## ETD Series

### Mechanical

Fig. 1

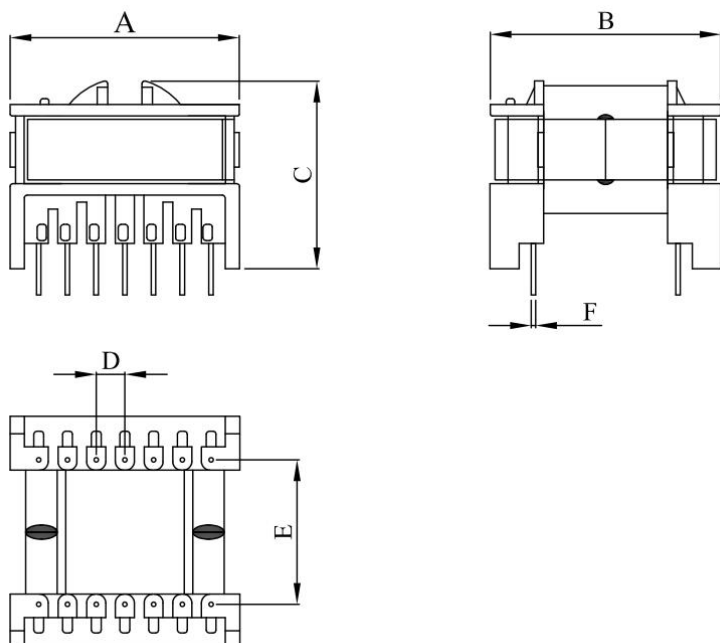
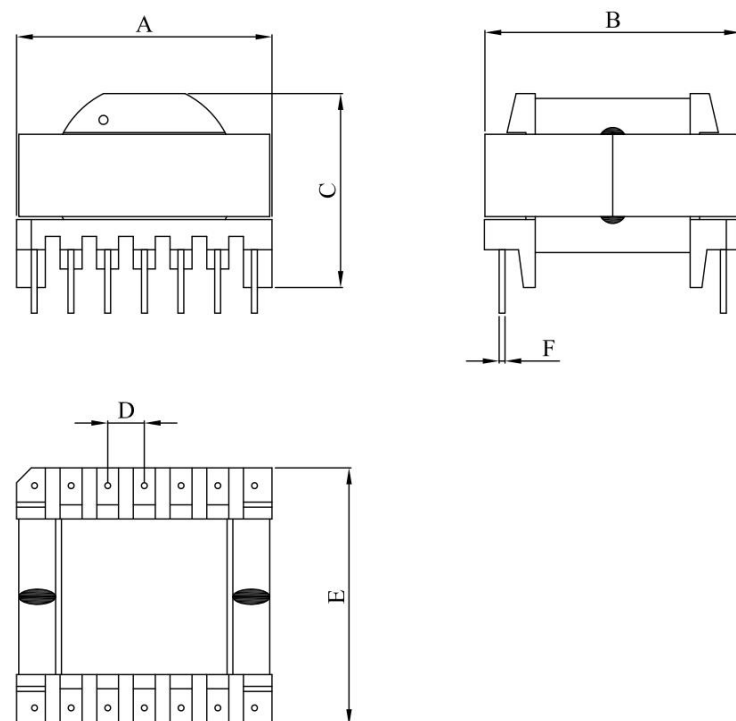


Fig. 2 ETD34-2



# THT POWER TRANSFORMERS

## ETD Series

Fig. 3 ETD34-3

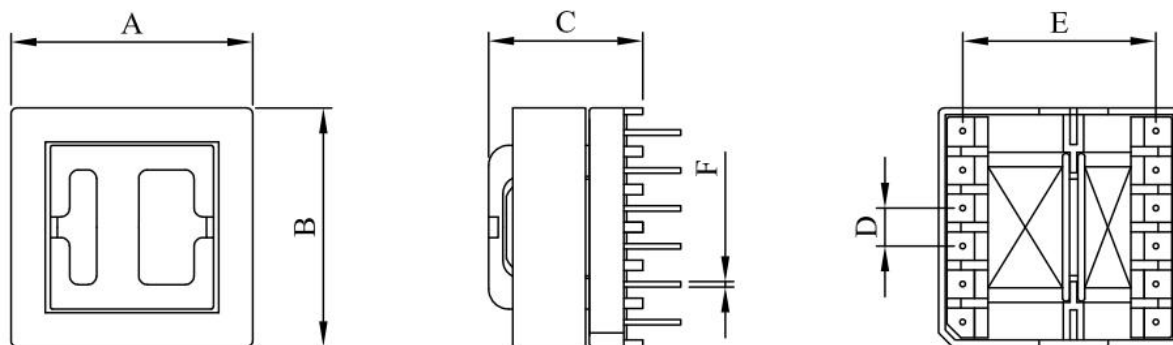


Fig. 4 ETD34-4

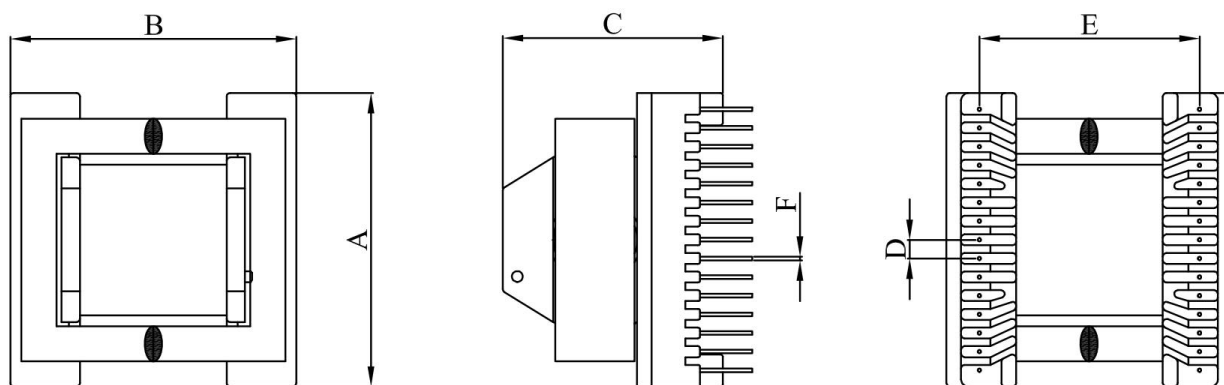
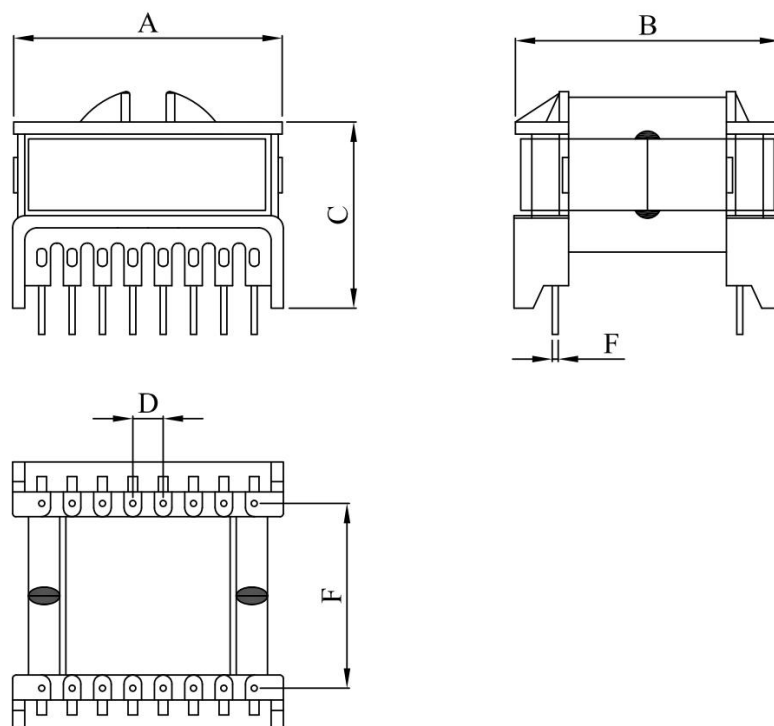


Fig. 5 ETD39



# THT POWER TRANSFORMERS

## ETD Series

Fig. 6 ETD44-1

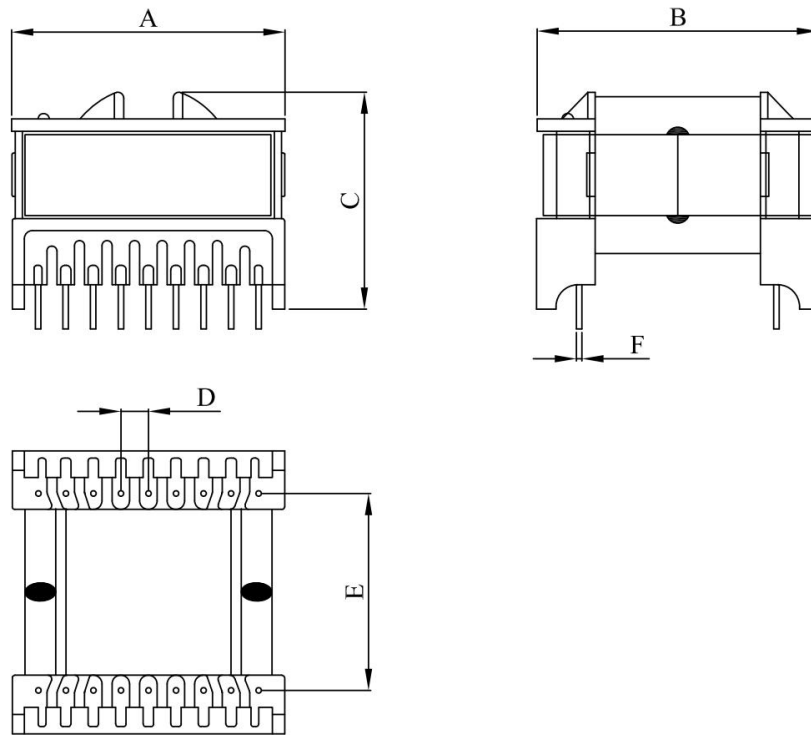
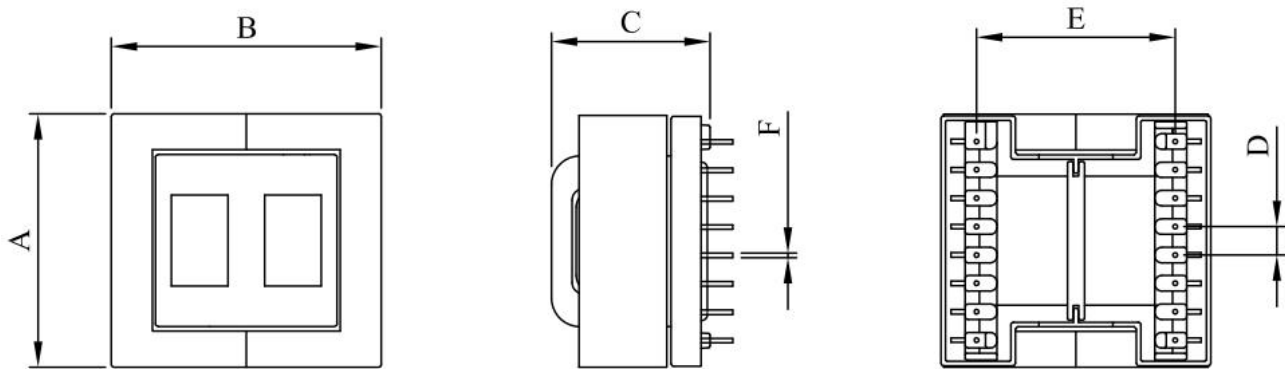


Fig. 7 ETD44-2



# THT POWER TRANSFORMERS

## ETD Series

Fig. 8 ETD49

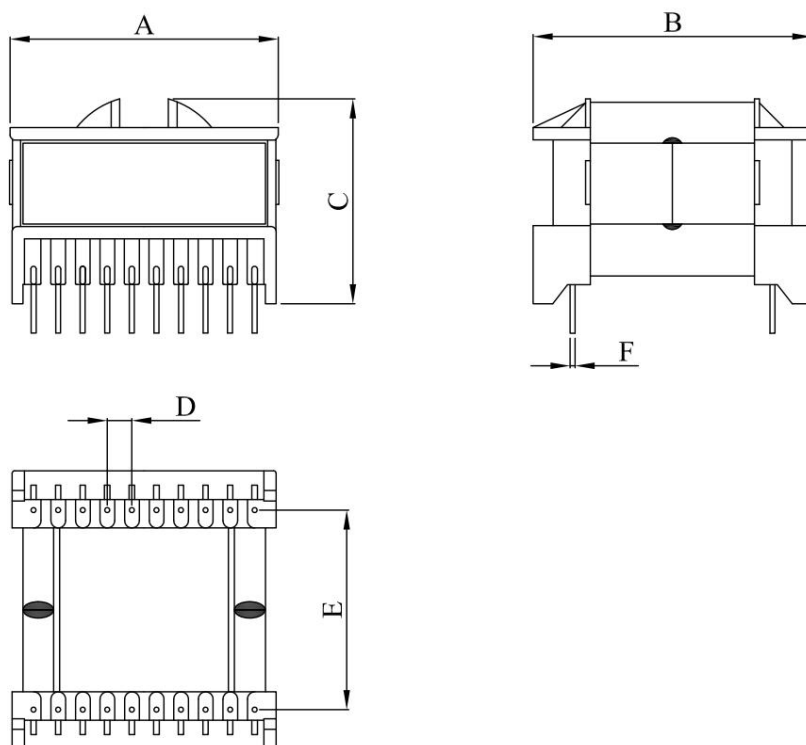
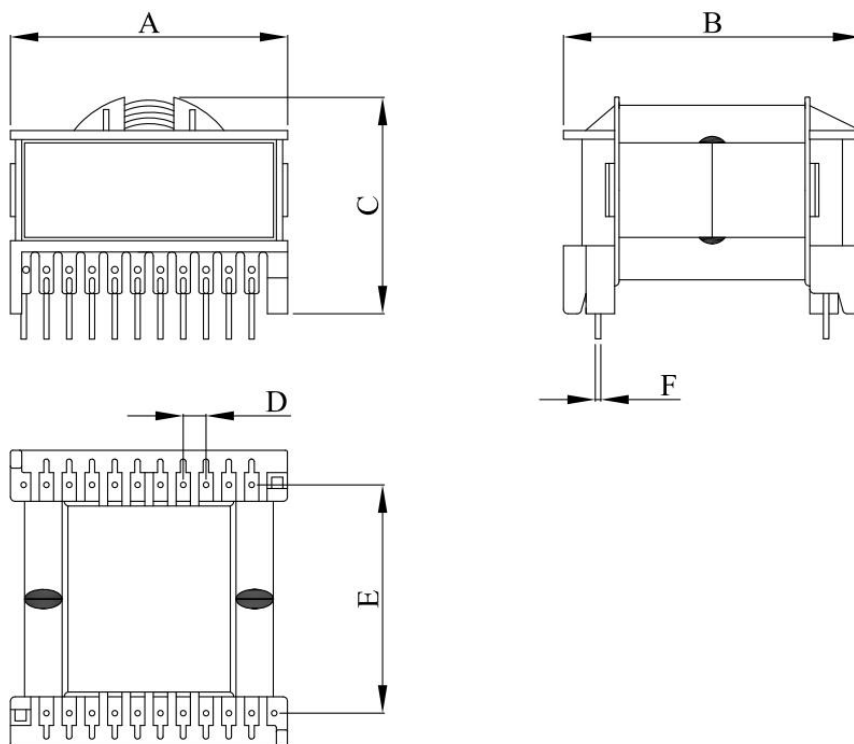


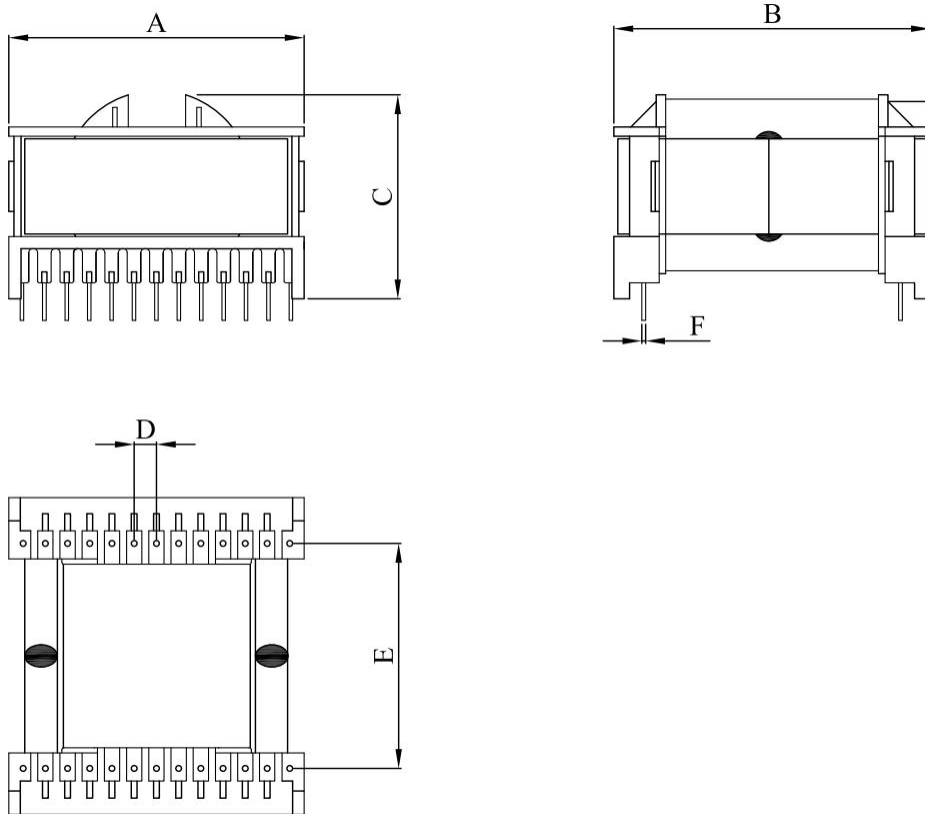
Fig. 9 ETD54



# THT POWER TRANSFORMERS

## ETD Series

Fig. 10 ETD59

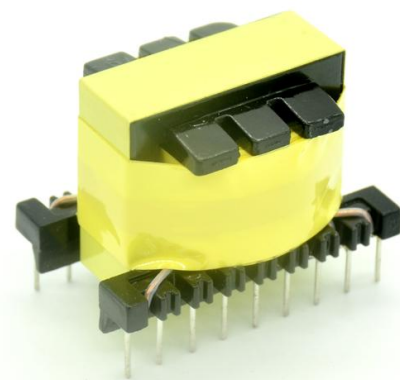


# THT POWER TRANSFORMERS

## EI Series –Vertical

### Features

- High power density and high efficiency/高功率密度，高效率
- Multiple-output is available/多路输出
- Operating frequency up to 500kHz/最大工作频率 500kHz
- Power up to 3kW/最大功率 3kW
- Custom designs available/客户定制



### Application

- Solar inverter, Server, Amplifier/太阳能逆变器，服务器，音响功放
- Network, POE, Router/网络产品，POE，路由器
- Elevator emergency power supply, /电梯应急电源
- Medical instrument power supply/医疗仪器电源
- Variable-frequency drive/变频器
- Industrial power supply/工业电源
- High end LED power supply/高端 LED 电源
- High end charger and USB/高端 USB 充电器
- Smart home electronics/智能家用电器
- Electrical power equipment/电力设备
- Test instrument/测试仪器

### Specifications

| Size   | Fig. | A<br>(Max.) | B<br>(Max.) | C<br>(Max.) | D<br>(Nom.) | E<br>(Nom.) | F<br>(Nom.) | Pins<br>(Optional) | fsw<br>(kHz) | Power<br>(W) <sup>2</sup> |
|--------|------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------|--------------|---------------------------|
| EI13   | 1    | 15.0        | 14.0        | 12.0        | 2.5         | 7.5         | Φ0.6        | 5+5                | 100          | 5-10                      |
| EI16   | 1    | 18.0        | 15.0        | 18.0        | 3.25        | 10.5        | Φ0.6        | 5+5                | 100          | 10-15                     |
| EI19   | 1    | 24.0        | 18.0        | 20.0        | 4.0         | 10.0        | Φ0.8        | 5+5                | 100          | 15-20                     |
| EI22   | 1    | 24.0        | 18.0        | 21.0        | 4.0         | 10.3        | Φ0.8        | 5+5                | 100          | 25-35                     |
| EI25   | 2    | 27.0        | 19.0        | 23.0        | 5.0         | 15.2        | Φ0.8        | 4+4                | 100          | 30-50                     |
| EI28   | 1    | 30.0        | 24.0        | 24.0        | 5.0         | 17.5        | Φ0.8        | 5+5                | 100          | 40-60                     |
| EI33-1 | 3    | 30.0        | 30.0        | 30.5        | 5.0         | 22.5        | Φ0.8        | 6+6                | 100          | 60-100                    |
| EI33-2 | 4    | 35.0        | 28.5        | 30.5        | 5.0         | 22.5        | Φ0.8        | 7+7                | 100          | 60-100                    |
| EI33-3 | 5    | 40.0        | 29.5        | 30.5        | 5.0         | 22.5        | Φ0.8        | 8+8                | 100          | 60-100                    |
| EI33-4 | 6    | 46.5        | 31.0        | 31.0        | 5.0         | 22.5        | Φ0.8        | 9+9                | 100          | 60-100                    |
| EI35   | 7    | 36.5        | 29.0        | 30.0        | 5.0         | 20.0        | Φ0.8        | 7+7                | 100          | 80-150                    |
| EI40-1 | 3    | 41.5        | 29.0        | 36.5        | 5.0         | 22.5        | Φ0.8        | 6+6                | 100          | 200-500                   |
| EI40-2 | 5    | 42.5        | 29.5        | 38.0        | 5.0         | 22.5        | Φ0.8        | 8+8                | 100          | 200-500                   |

1. Operating Temperature: -40°C~+125°C(Includes temperature when the coil is heated).

2. Output power is only for reference at switching frequency 100kHz.

# THT POWER TRANSFORMERS

## EI Series – Vertical

### Mechanical

Fig. 1

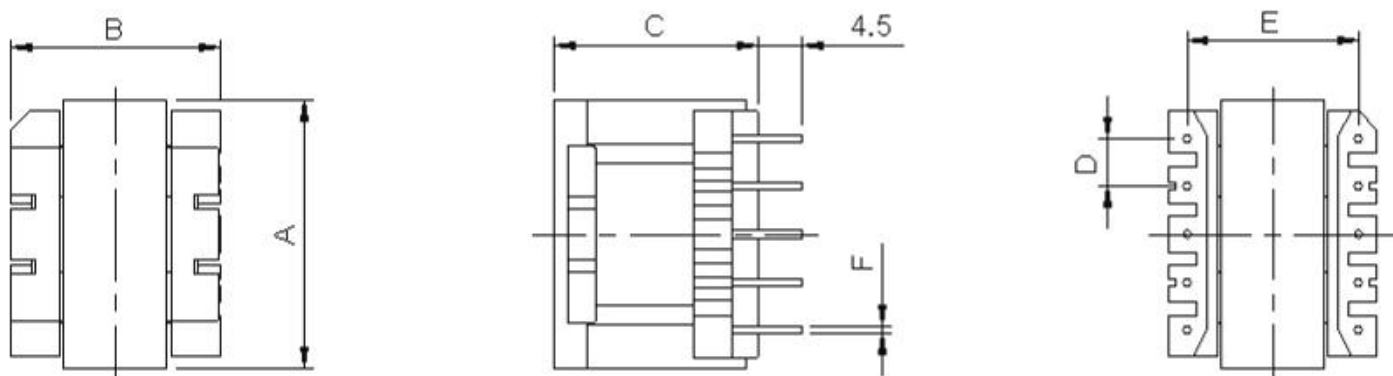


Fig. 2

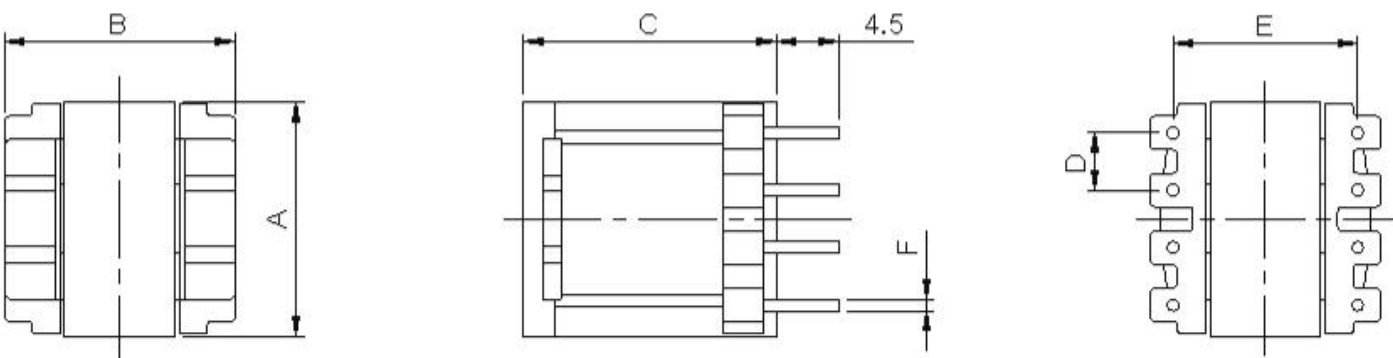


Fig. 3

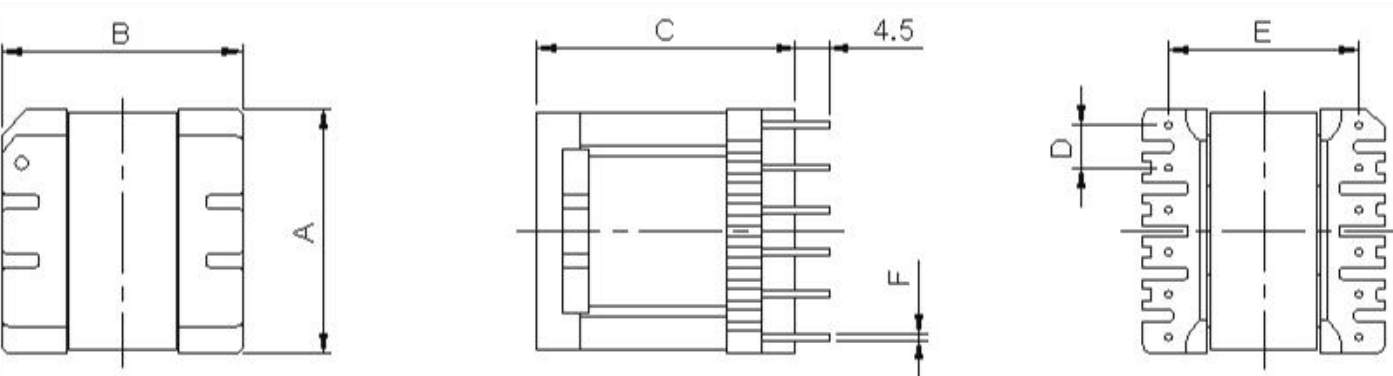
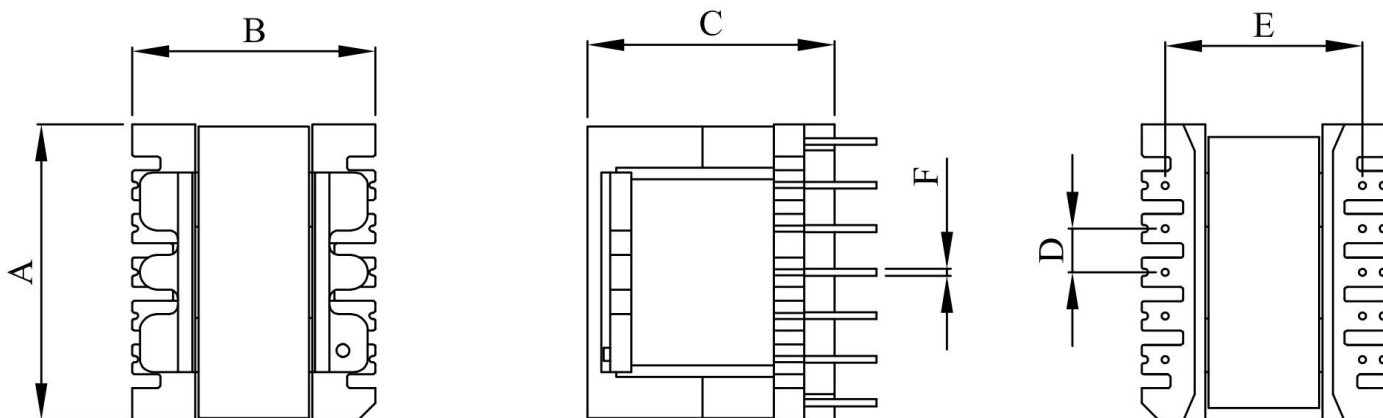


Fig. 4



# THT POWER TRANSFORMERS

## EI Series – Vertical

Fig. 5

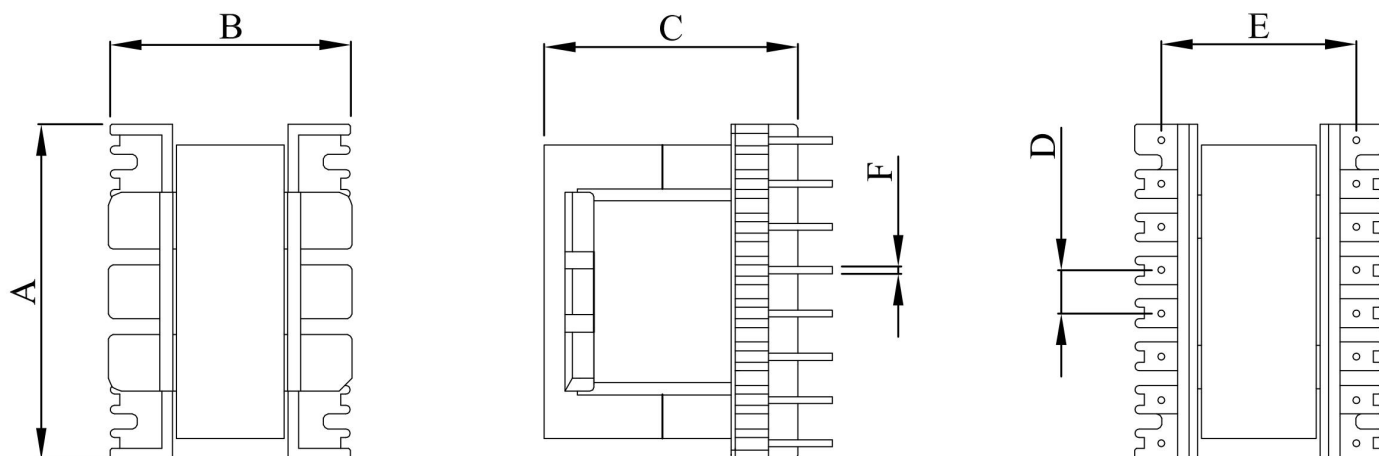


Fig. 6

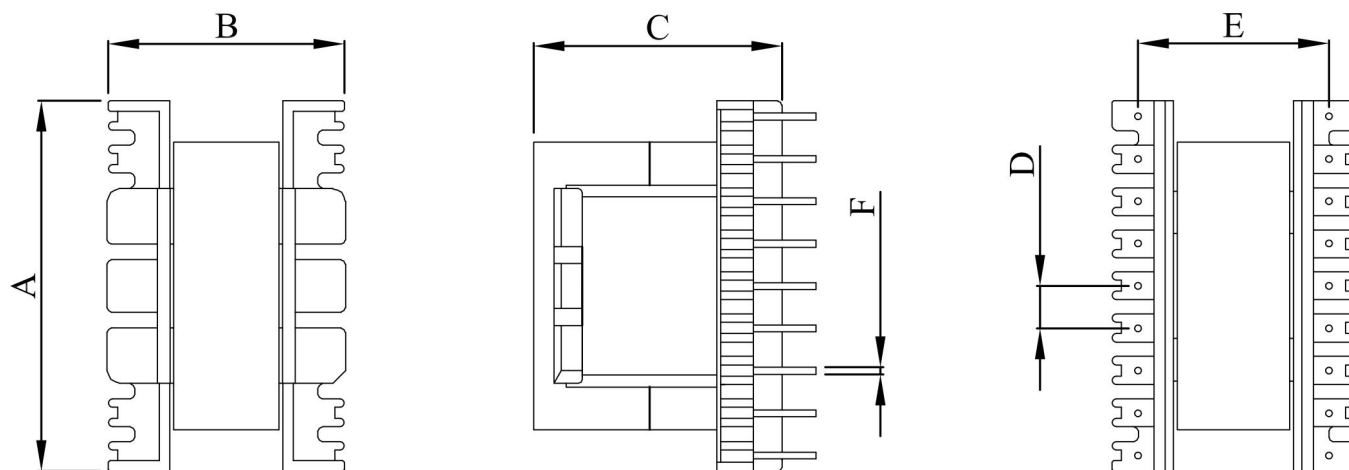
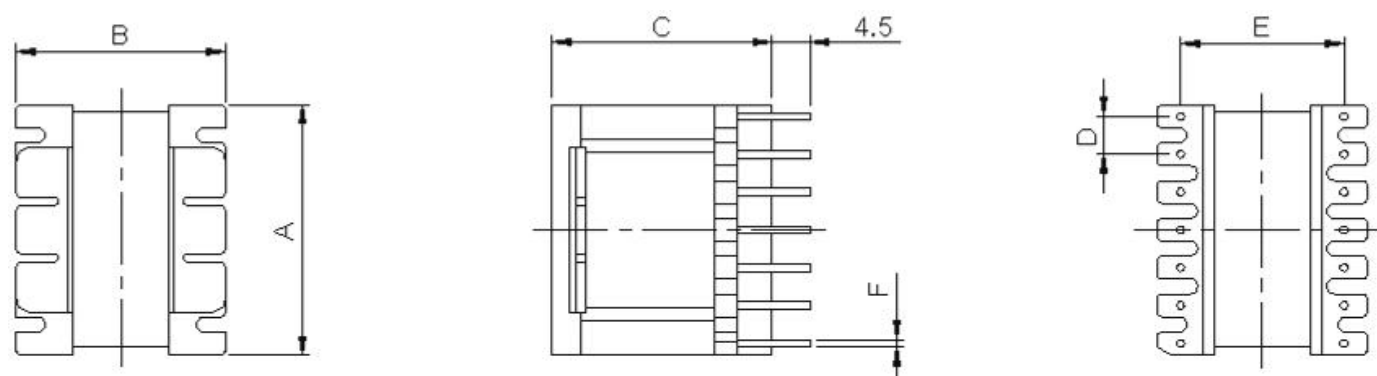


Fig. 7



# THT POWER TRANSFORMERS

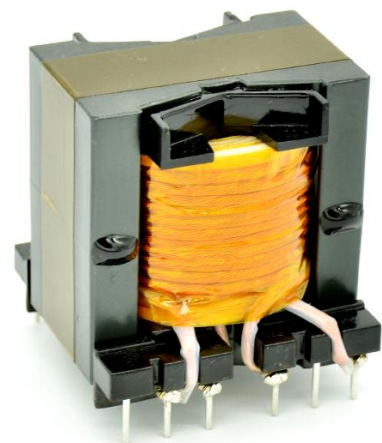
## PQ Series

### Features

- High power density and high efficiency/高功率密度，高效率
- Multiple-output is available/多路输出
- Operating frequency up to 500kHz/最大工作频率 500kHz
- Power up to 6kW/最大功率 6kW
- Custom designs available/客户定制

### Application

- Solar inverter, Server, Amplifier/太阳能逆变器，服务器，音响功放
- Network, POE, Router/网络产品，POE，路由器
- Elevator emergency power supply, /电梯应急电源
- Electric vehicle charging pile/电动汽车充电桩电源
- Medical instrument power supply/医疗仪器电源
- Variable-frequency drive/变频器
- Industrial power supply/工业电源
- High end LED power supply/高端 LED 电源
- High end charger and USB/高端 USB 充电器
- Smart home electronics/智能家用电器
- Electrical power equipment/电力设备
- Test instrument/测试仪器



### Specifications

| Size     | Fig. | A (Max.) | B (Max.) | C (Max.) | D (Nom.) | D1 (Nom.) | E (Nom.) | Pins (Optional) | fsw (kHz) | Power (W) <sup>2</sup> |
|----------|------|----------|----------|----------|----------|-----------|----------|-----------------|-----------|------------------------|
| PQ2016   | 1    | 25       | 25       | 21       | 2.54     | 3.80      | 20.5     | 6+8             | 100       | 25-30                  |
| PQ2020   | 1    | 25       | 25       | 26       | 2.54     | 3.80      | 20.5     | 6+8             | 100       | 25-40                  |
| PQ2620   | 2    | 28       | 32       | 27       | 3.81     | 7.62      | 25.4     | 6+6             | 100       | 40-80                  |
| PQ2625   | 2    | 28       | 32       | 32       | 3.81     | 7.62      | 25.4     | 6+6             | 100       | 50-100                 |
| PQ3220   | 2    | 35       | 37       | 23       | 5.08     | 7.62      | 30.5     | 6+6             | 100       | 100-200                |
| PQ3225   | 2    | 35       | 37       | 30       | 5.00     | 7.50      | 30.5     | 6+6             | 100       | 150-300                |
| PQ3230   | 2    | 35       | 37       | 34       | 5.00     | 7.50      | 30.5     | 6+6             | 100       | 200-500                |
| PQ3525   | 2    | 37       | 42       | 32       | 5.00     | 10.20     | 35.5     | 6+6             | 100       | 250-500                |
| PQ3530   | 2    | 37       | 42       | 36       | 5.00     | 10.20     | 35.5     | 6+6             | 100       | 250-600                |
| PQ3535   | 2    | 37       | 42       | 40       | 5.00     | 10.20     | 35.5     | 6+6             | 100       | 800-1500               |
| PQ4040-1 | 2    | 43       | 42       | 47       | 5.00     | 15.00     | 38.1     | 6+6             | 100       | 1000-3000              |
| PQ4040-2 | 3    | 44       | 42       | 42       | 5.00     | --        | 35.5     | 7+7             | 100       | 1000-3000              |
| PQ5050   | 2    | 53       | 53       | 56       | 7.50     | 12.40     | 45.0     | 6+6             | 100       | 2000-5000              |

1. Operating Temperature: -40°C~+125°C(Includes temperature when the coil is heated).

2. Output power is only for reference at switching frequency 100kHz

# THT POWER TRANSFORMERS

## PQ Series

### Mechanical

Fig. 1

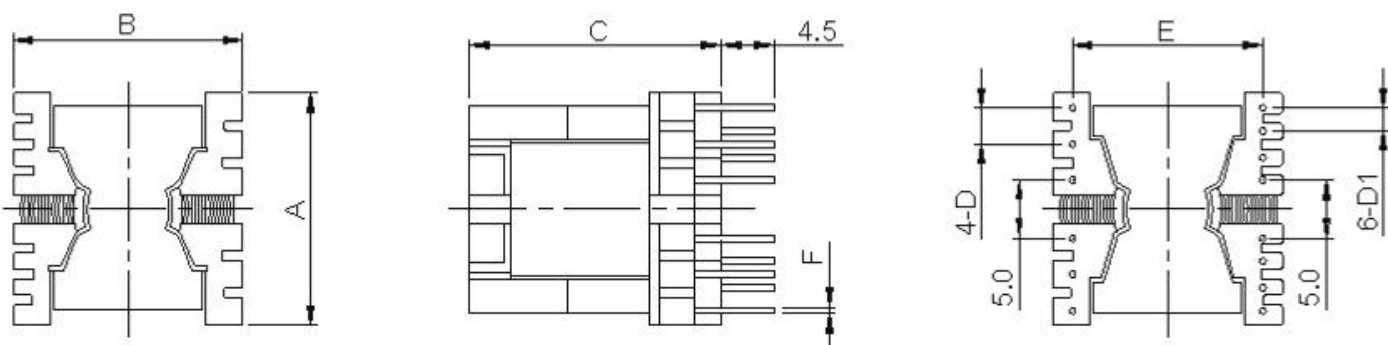


Fig. 2

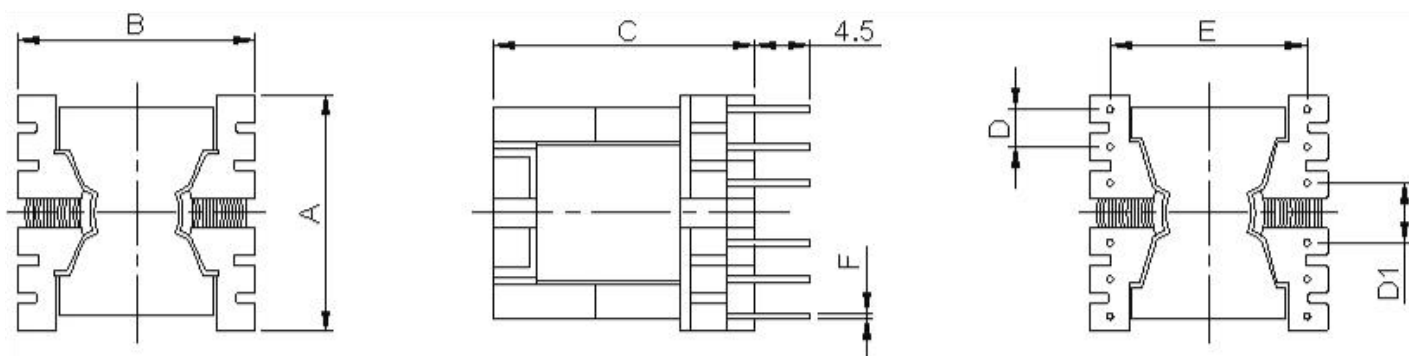
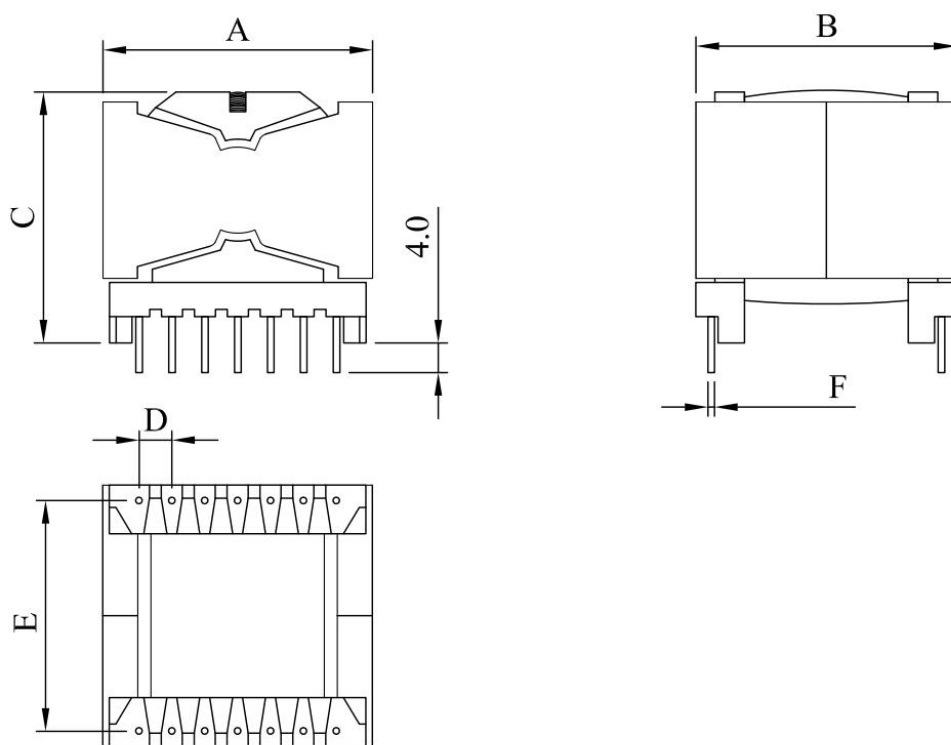


Fig. 3

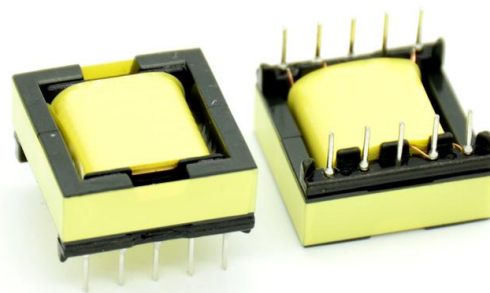


# THT POWER TRANSFORMERS

## EFD Series

### Features

- High power density and high efficiency/高功率密度，高效率
- Multiple-output is available/多路输出
- Low height solution/低高度方案
- Operating frequency up to 500kHz/最大工作频率 500kHz
- Custom designs available/客户定制



### Application

- Solar inverter, Server, Amplifier/太阳能逆变器，服务器，音响功放
- Network, POE, Router/网络产品，POE，路由器
- Elevator emergency power supply, /电梯应急电源
- Medical instrument power supply/医疗仪器电源
- Variable-frequency drive/变频器
- Industrial power supply/工业电源
- High end LED power supply/高端 LED 电源
- High end charger and USB/高端 USB 充电器
- Smart home electronics/智能家用电器
- Electrical power equipment/电力设备
- Test instrument/测试仪器

### Specifications

| Size    | Fig. | A (Max.) | B (Max.) | C (Max.) | D (Nom.) | E (Nom.) | F (Nom.) | Pins (Optional) | fsw (kHz) | Power (W) <sup>2</sup> |
|---------|------|----------|----------|----------|----------|----------|----------|-----------------|-----------|------------------------|
| EFD15   | 1    | 16.0     | 17.2     | 9.0      | 3.75     | 13.75    | Φ0.6     | 4+4             | 100       | 10-15                  |
| EFD20-1 | 1    | 21.5     | 21.5     | 11.5     | 5.0      | 17.5     | Φ0.6     | 4+4             | 100       | 20-30                  |
| EFD20-2 | 2    | 21.5     | 21.5     | 11.5     | 3.75     | 17.5     | Φ0.6     | 5+5             | 100       | 20-30                  |
| EFD25   | 2    | 26.0     | 27.0     | 16.0     | 5.0      | 22.5     | Φ0.8     | 5+5             | 100       | 30-60                  |
| EFD30   | 3    | 31.0     | 32.2     | 17.5     | 5.0      | 27.5     | Φ0.8     | 6+6             | 100       | 50-100                 |

1. Operating Temperature: -40°C~+125°C(Includes temperature when the coil is heated).
2. Output power is only for reference at switching frequency 100kHz.

# THT POWER TRANSFORMERS

## EFD Series

### Mechanical

Fig. 1

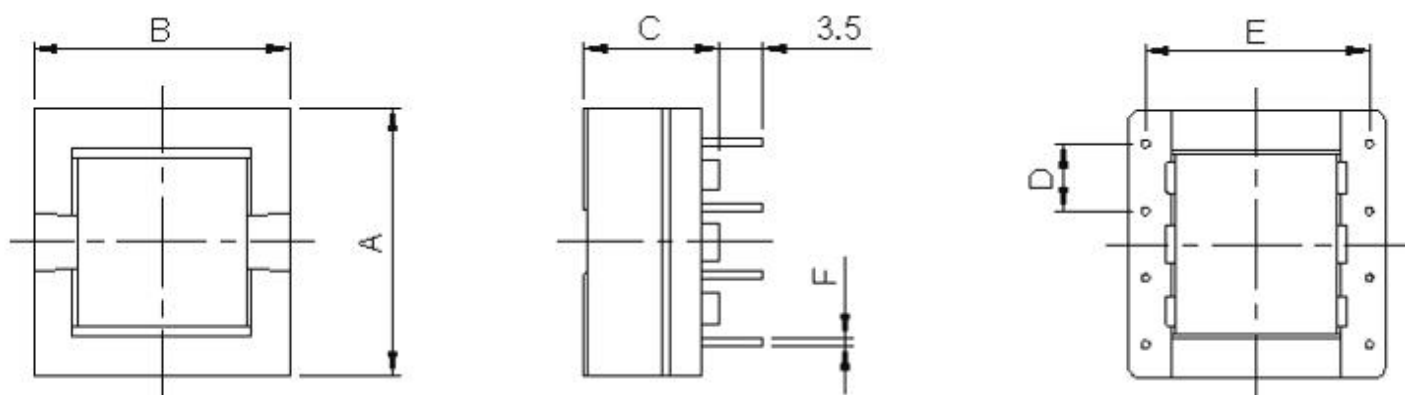


Fig. 2

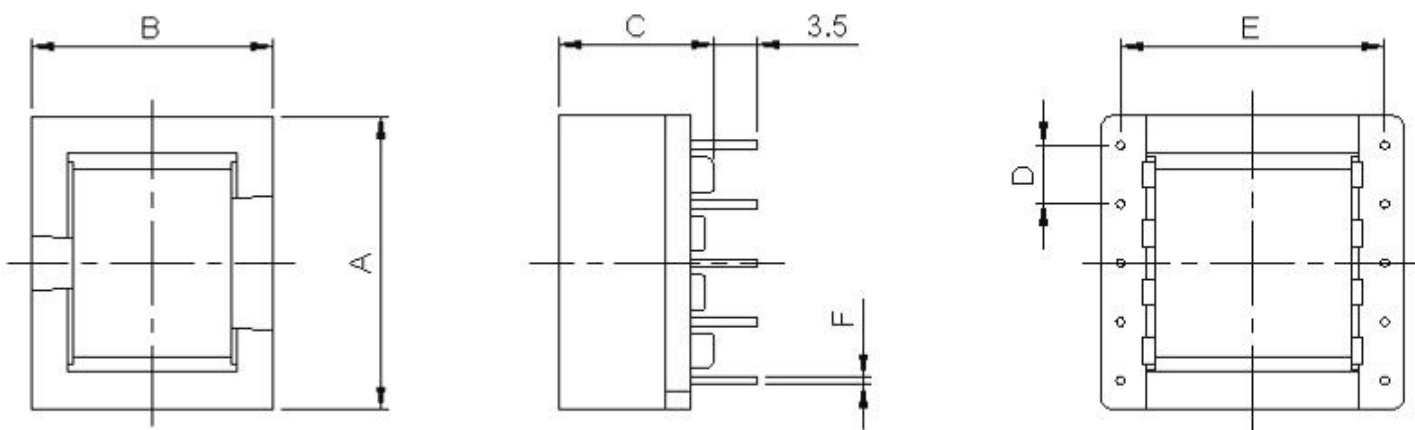
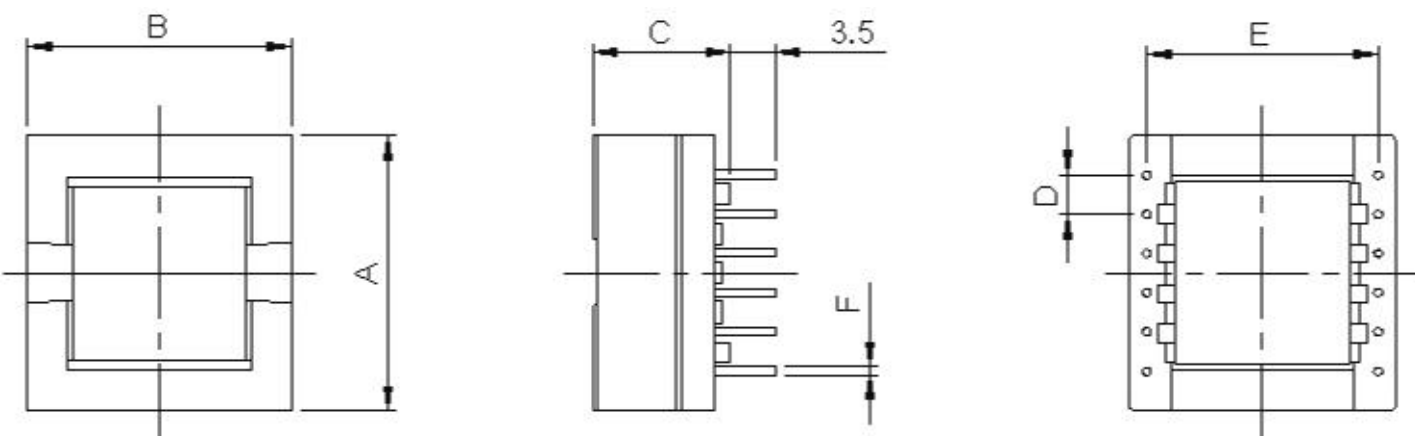


Fig. 3

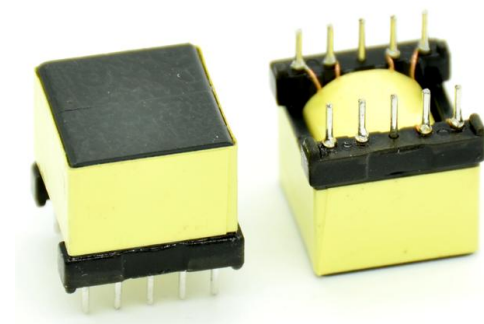


# SMT POWER TRANSFORMERS

## EP Series

### Features

- High power density and high efficiency/高功率密度，高效率
- Multiple-output is available/多路输出
- Operating frequency up to 500kHz/最大工作频率 500kHz
- Custom designs available/客户定制



### Application

- Network, POE, Router/网络产品，POE，路由器
- Solar inverter, Server, Amplifier/太阳能逆变器，服务器
- Medical instrument power supply/医疗仪器电源
- Variable-frequency drive/变频器
- Industrial power supply/工业电源
- High end LED power supply/高端 LED 电源
- High end charger and USB/高端 USB 充电器
- Smart home electronics/智能家用电器
- Electrical power equipment/电力设备
- Test instrument/测试仪器

### Specifications

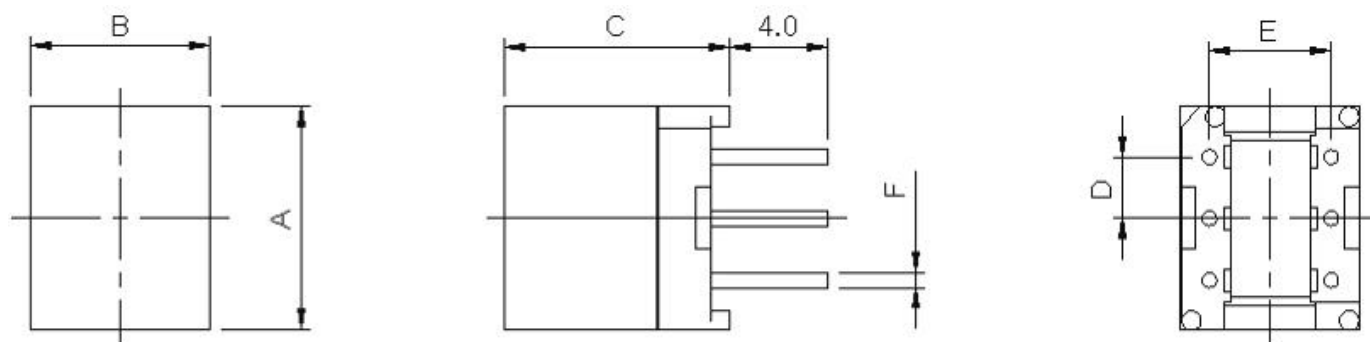
| Size | Fig. | A<br>(Max.) | B<br>(Max.) | C<br>(Max.) | D<br>(Nom.) | E<br>(Nom.) | F<br>(Nom.) | Pins<br>(Optional) | fsw<br>(kHz) | Power<br>(W) <sup>2</sup> |
|------|------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------|--------------|---------------------------|
| EP7  | 1    | 10.2        | 9.0         | 11.0        | 2.54        | 5.08        | Φ0.6        | 3+3                | 100          | 5-10                      |
| EP10 | 2    | 12.5        | 12.0        | 13.0        | 2.50        | 7.50        | Φ0.6        | 4+4                | 100          | 10-15                     |
| EP13 | 3    | 15.0        | 14.3        | 14.0        | 2.50        | 10.0        | Φ0.6        | 5+5                | 100          | 15-40                     |
| EP17 | 2    | 20.0        | 20.0        | 17.0        | 5.00        | 15.0        | Φ0.6        | 4+4                | 100          | 25-50                     |

1. Operating Temperature: -40°C~+125°C(Includes temperature when the coil is heated).

2. Output power is only for reference at switching frequency 100kHz.

### Mechanical

Fig. 1



# SMT POWER TRANSFORMERS

## EP Series

Fig. 2

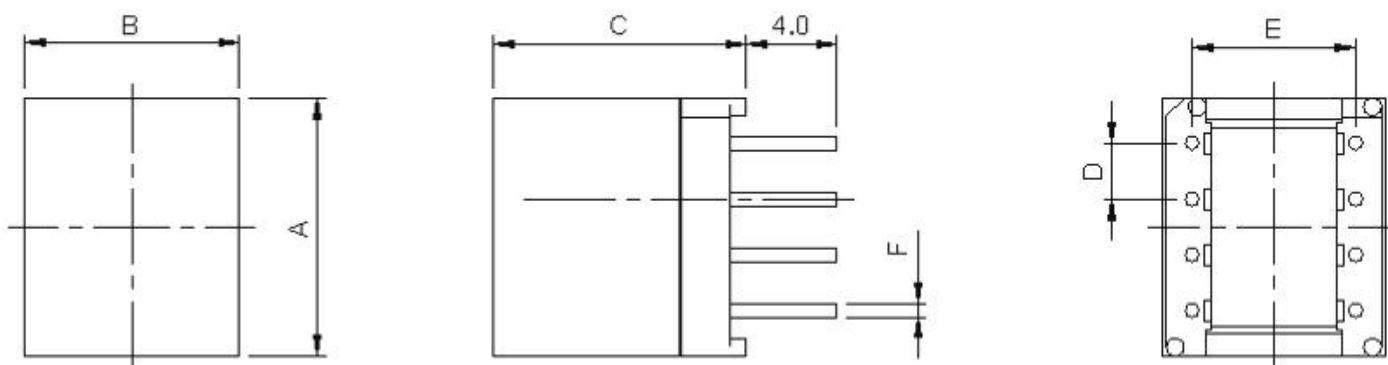
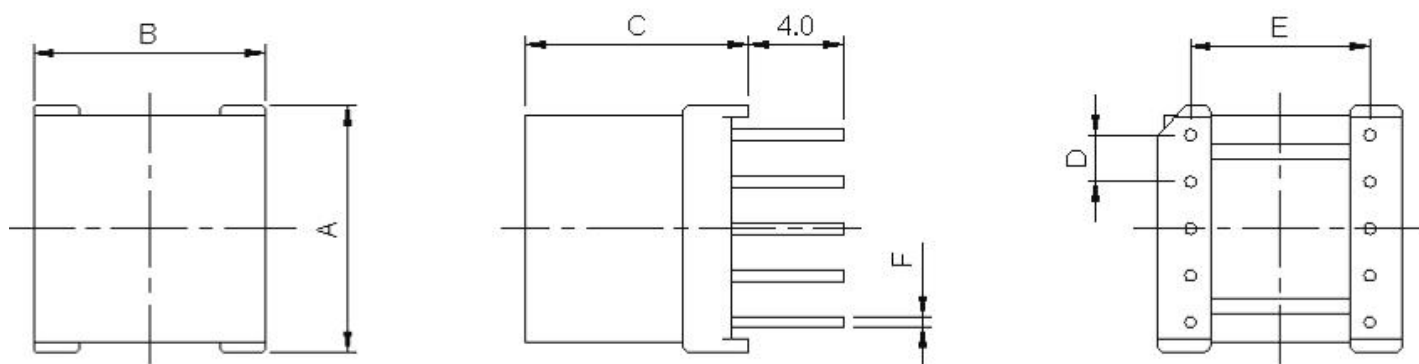


Fig. 3

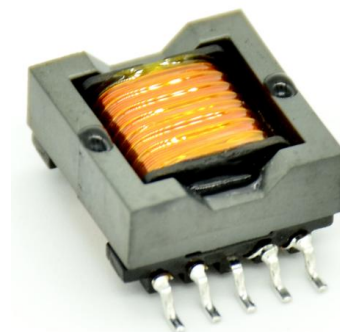


# SMT POWER TRANSFORMERS

## EFD Series without Cover

### Features

- High power density and high efficiency/高功率密度，高效率
- Multiple-output is available/多路输出
- Operating frequency up to 500kHz/最大工作频率 500kHz
- Custom designs available/客户定制



### Application

- Network, POE, Router/网络产品，POE，路由器
- Solar inverter, Server, Amplifier/太阳能逆变器，服务器，音响功放
- Medical instrument power supply/医疗仪器电源
- Variable-frequency drive/变频器
- Industrial power supply/工业电源
- Smart home electronics/智能家用电器
- Electrical power equipment/电力设备
- Test instrument/测试仪器

### Specifications

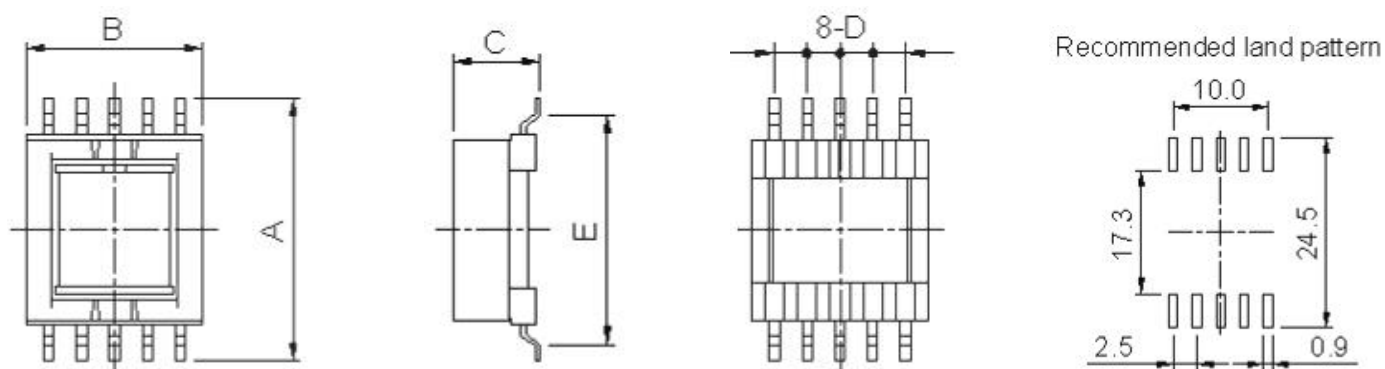
| Size   | Fig. | A (Max.) | B (Max.) | C (Max.) | D (Nom.) | E (Nom.) | PIN Size (Nom.) | Pins (Optiona) | fsw (kHz) | Power (W) <sup>2</sup> |
|--------|------|----------|----------|----------|----------|----------|-----------------|----------------|-----------|------------------------|
| SEFD15 | 1    | 23.0     | 16.0     | 9.0      | 2.5      | 18.2     | 0.7x0.4         | 5+5            | 100       | 10-15                  |
|        | 2    | 23.0     | 18.0     | 9.0      | 2.5      | 18.1     | 0.7x0.35        | 6+6            | 100       |                        |
| SEFD20 | 3    | 26.0     | 22.5     | 11.0     | 3.75     | 23.1     | 1.0x0.4         | 5+5            | 100       | 20-40                  |
|        | 4    | 30.0     | 21.5     | 11.0     | 3.0      | 24.6     | 0.7x0.4         | 6+6            | 100       |                        |
| SEFD25 | 5    | 33.0     | 26.5     | 14.2     | 5.0      | 29.7     | 1.0x0.4         | 5+5            | 100       | 30-60                  |
|        | 6    | 33.0     | 26.5     | 14.5     | 4.0      | 29.7     | 1.0x0.4         | 6+6            | 100       |                        |

1. Operating Temperature: -40°C~+125°C(Includes temperature when the coil is heated).

2. Output power is only for reference at switching frequency 100kHz.

### Mechanical

Fig. 1



# SMT POWER TRANSFORMERS

## EFD Series without Cover

Fig. 2

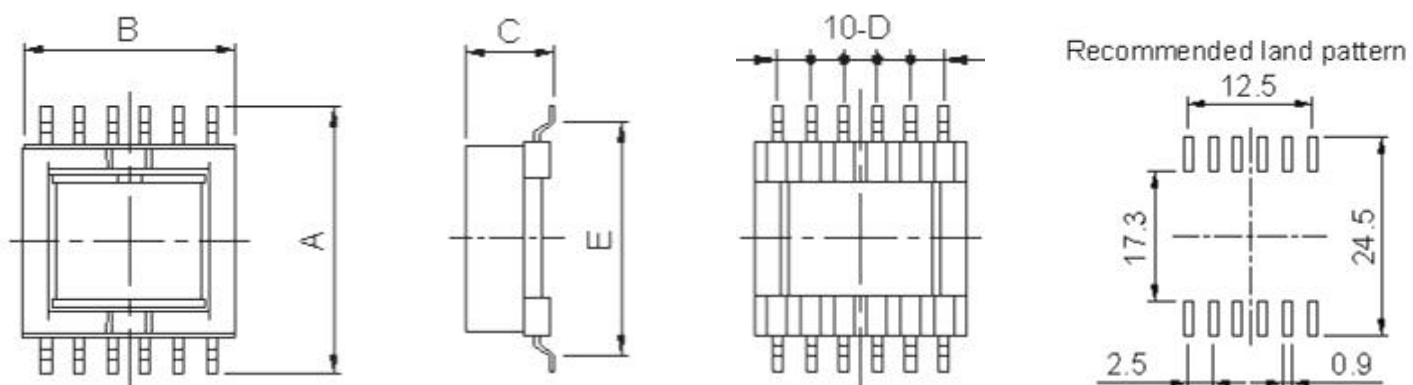


Fig. 3

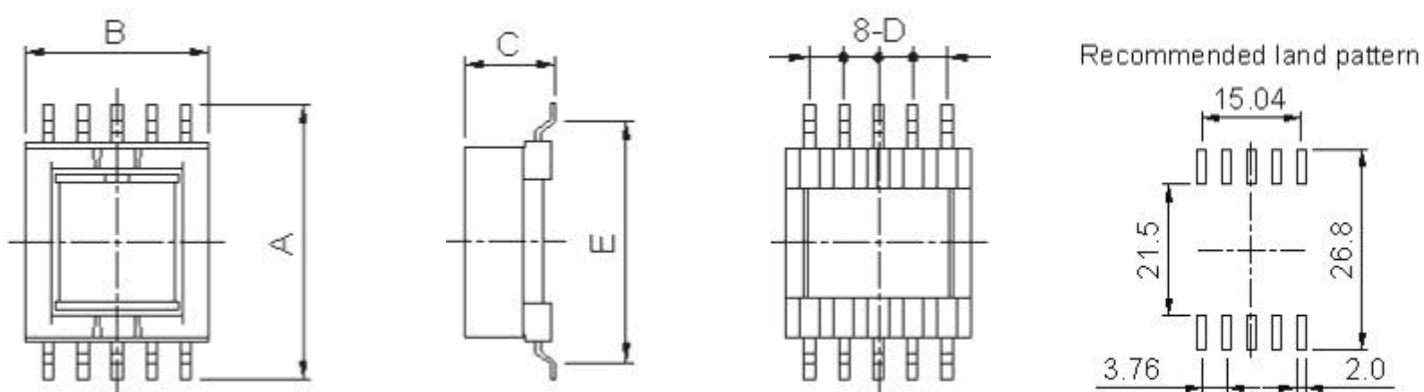
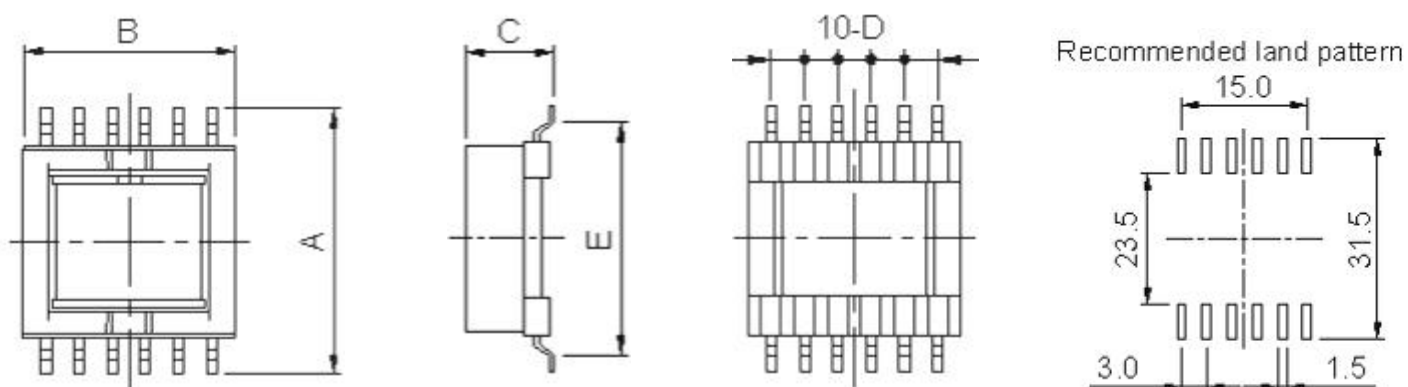


Fig. 4



# SMT POWER TRANSFORMERS

## EFD Series without Cover

Fig. 5

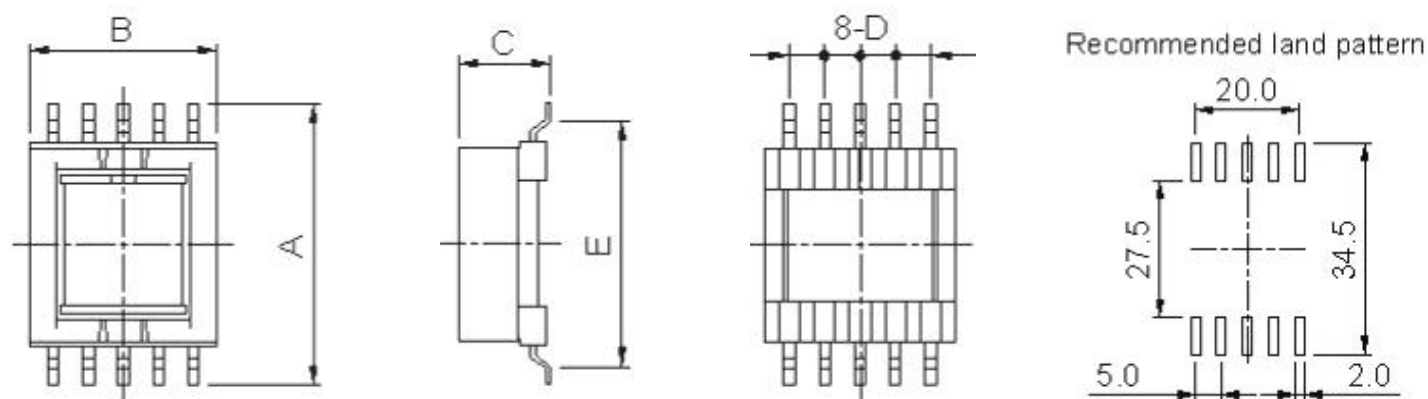
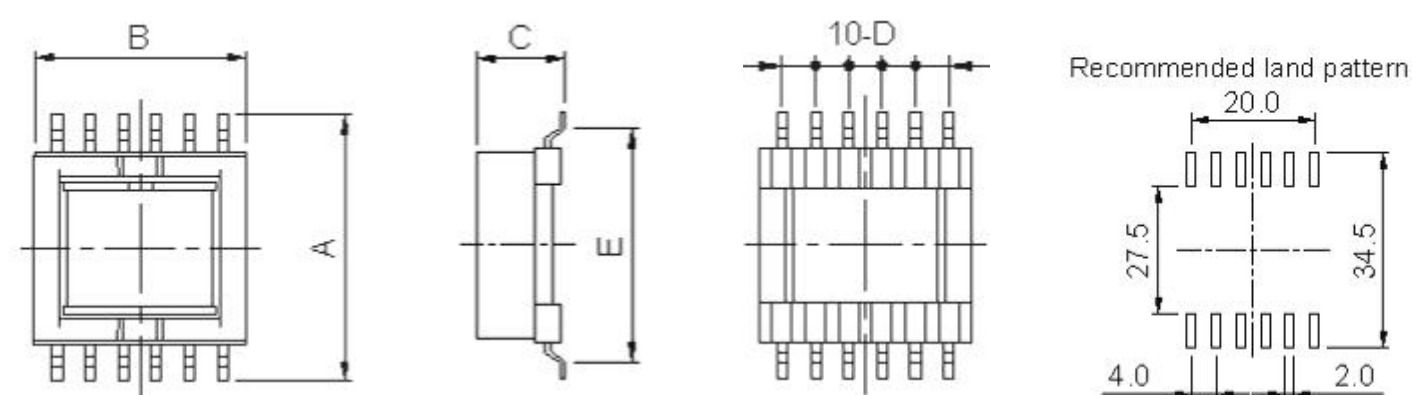


Fig. 6

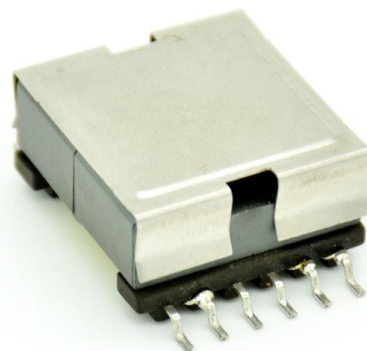


# SMT POWER TRANSFORMERS

## EFD Series with Cover

### Features

- High power density and high efficiency/高功率密度，高效率
- Multiple-output is available/多路输出
- Operating frequency up to 500kHz/最大工作频率 500kHz
- Custom designs available/客户定制



### Application

- Network, POE, Router/网络产品，POE，路由器
- Solar inverter, Server, Amplifier/太阳能逆变器，服务器，音响功放
- Medical instrument power supply/医疗仪器电源
- Variable-frequency drive/变频器
- Industrial power supply/工业电源
- Smart home electronics/智能家用电器
- Electrical power equipment/电力设备
- Test instrument/测试仪器

### Specifications

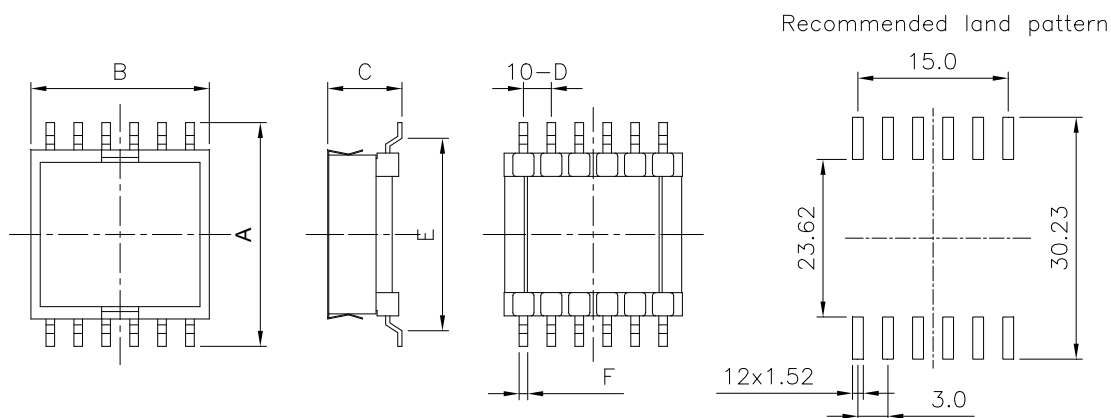
| Size   | Fig. | A (Max.) | B (Max.) | C (Max.) | D (Nom.) | E (Nom.) | F (Nom.) | Pins (Optional) | fsw (kHz) | Power (W) <sup>2</sup> |
|--------|------|----------|----------|----------|----------|----------|----------|-----------------|-----------|------------------------|
| SEFD15 | 2    | 23.0     | 18.0     | 10.0     | 2.5      | 18.1     | 0.7x0.35 | 6+6             | 100       | 10-15                  |
| SEFD20 | 1    | 29.5     | 21.5     | 12.5     | 3.0      | 24.6     | 0.7x0.4  | 6+6             | 100       | 20-40                  |
| SEFD25 | 2    | 33.0     | 27.5     | 15.0     | 4.0      | 29.7     | 1.0X0.4  | 6+6             | 100       | 30-60                  |

1. Operating Temperature: -40°C~+125°C(Includes temperature when the coil is heated).

2. Output power is only for reference at switching frequency 100kHz.

### Mechanical

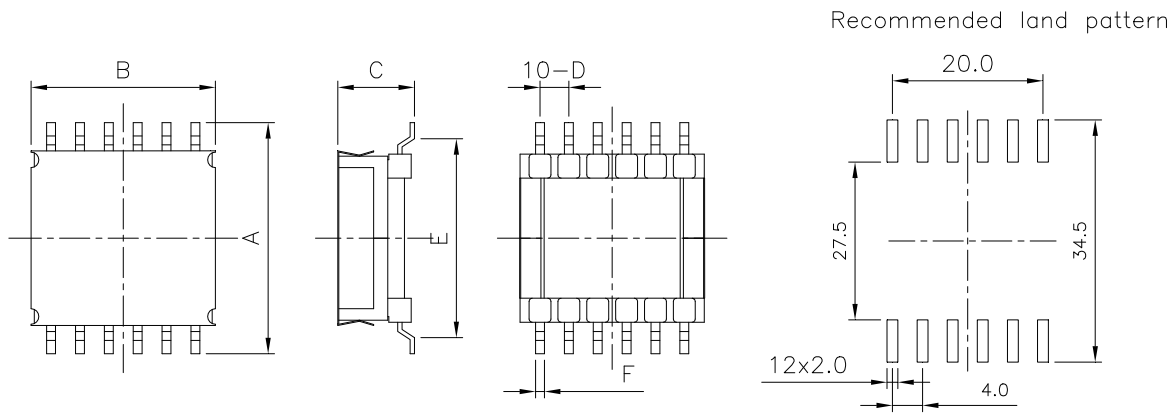
Fig. 1



# SMT POWER TRANSFORMERS

## EFD Series with Cover

Fig. 2

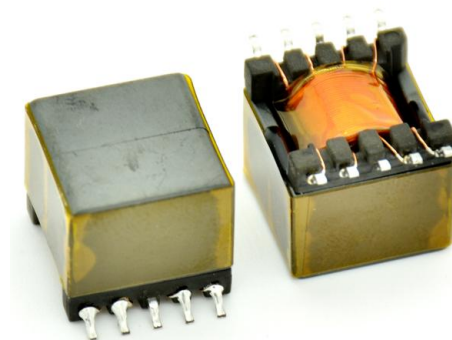


# SMT POWER TRANSFORMERS

## EP Series

### Features

- High power density and high efficiency/高功率密度，高效率
- Multiple-output is available/多路输出
- Operating frequency up to 500kHz/最大工作频率 500kHz
- Custom designs available/客户定制



### Application

- Network, POE, Router/网络产品，POE，路由器
- Solar inverter, Server, Amplifier/太阳能逆变器，服务器，音响功放
- Medical instrument power supply/医疗仪器电源
- Variable-frequency drive/变频器
- Industrial power supply/工业电源
- Smart home electronics/智能家用电器
- Electrical power equipment/电力设备
- Test instrument/测试仪器

### Specifications

| Size  | Fig. | A (Max.) | B (Max.) | C (Max.) | D (Nom.) | E (Nom.) | E1 (Nom.) | PIN Size | Pins (Optional) | Power (W) <sup>2</sup> |
|-------|------|----------|----------|----------|----------|----------|-----------|----------|-----------------|------------------------|
| SEP7  | 1    | 14.0     | 11.0     | 9.5      | 2.5      | 10.6     | -         | 0.7x0.25 | 3+3             | 5-10                   |
|       | 2    | 15.3     | 11.0     | 10.0     | 3.0      | 10.75    | 7.15      | 0.6x0.3  | 3+3             |                        |
|       | 3    | 11.0     | 12.0     | 12.0     | 2.5      | 8.7      | 5.6       | 0.4x0.4  | 4+4             |                        |
|       | 4    | 14.5     | 11.0     | 9.5      | 2.5      | 10.6     | -         | 0.7x0.3  | 4+4             |                        |
| SEP10 | 4    | 16.0     | 12.5     | 12.5     | 2.5      | 12.5     | -         | 0.7x0.3  | 4+4             | 10-20                  |
|       | 5    | 18.0     | 12.5     | 13.0     | 2.5      | 13.2     | 9.6       | 0.7x0.4  | 4+4             |                        |
| SEP13 | 6    | 18.5     | 14.0     | 13.0     | 2.5      | 15.4     | -         | 0.7x0.4  | 5+5             | 20-40                  |
|       | 7    | 20.0     | 14.0     | 13.0     | 2.5      | 15.5     | 11.8      | 0.7x0.4  | 5+5             |                        |
|       | 8    | 17.8     | 14.5     | 13.0     | 1.7/3.4  | 14.7     | -         | 0.6x0.4  | 8+4             |                        |

1. Operating Temperature: -40°C~+125°C(Includes temperature when the coil is heated).

2. Output power is only for reference at switching frequency 100kHz.

# SMT POWER TRANSFORMERS

## EP Series

### Mechanical

Fig. 1

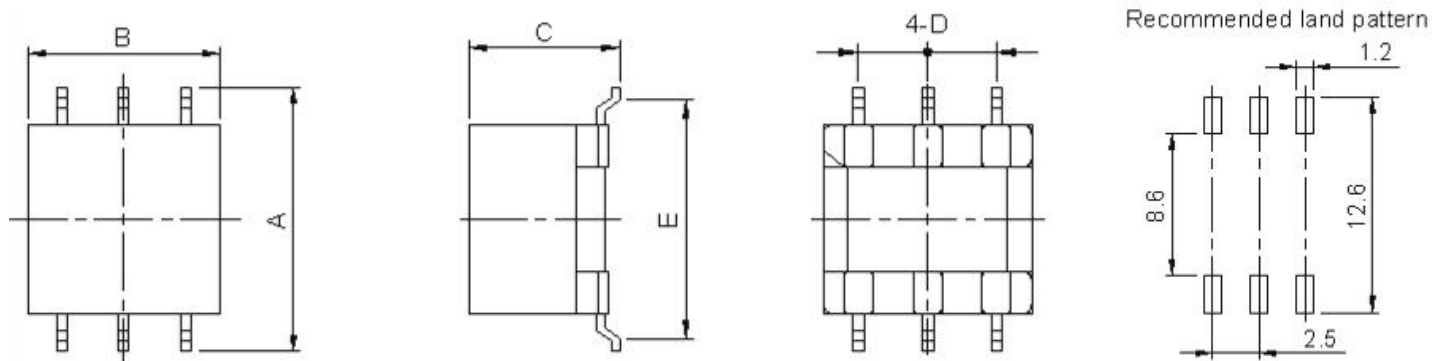


Fig. 2

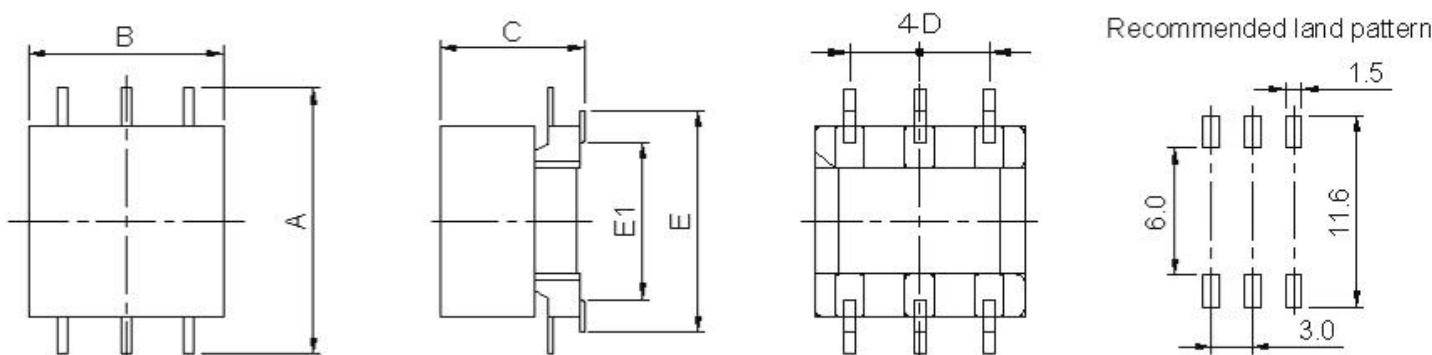


Fig. 3

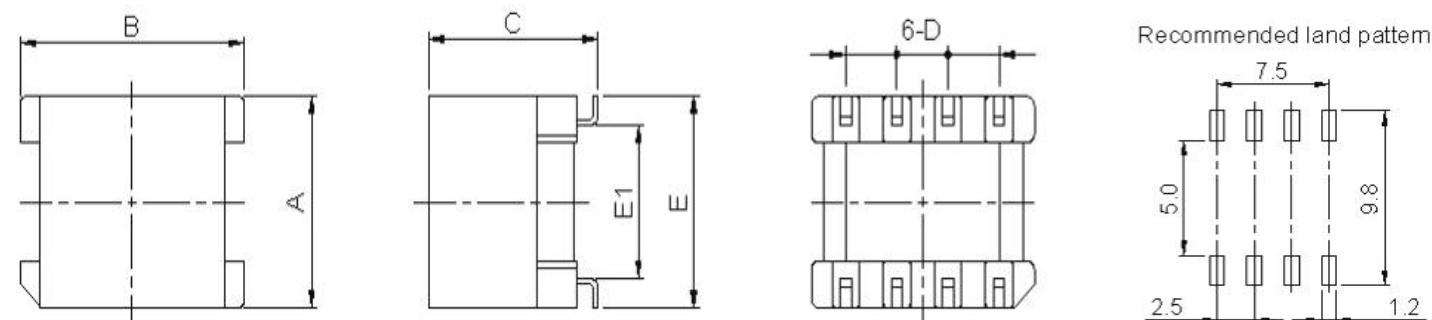
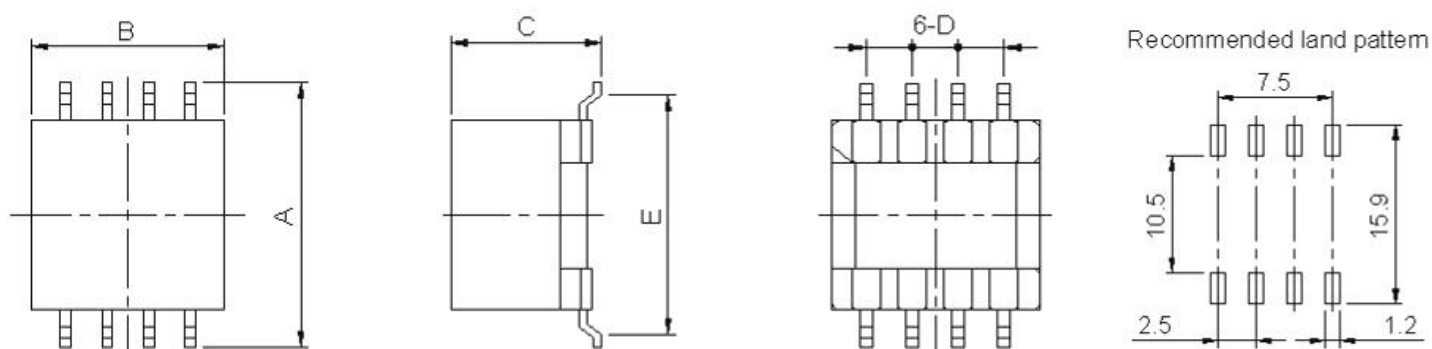


Fig. 4



# SMT POWER TRANSFORMERS

## EP Series

Fig. 5

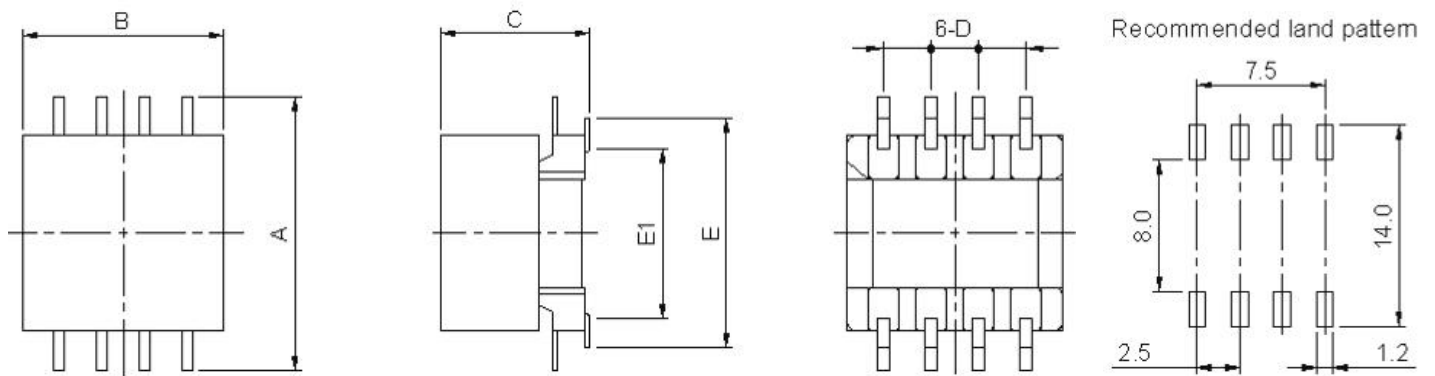


Fig. 6

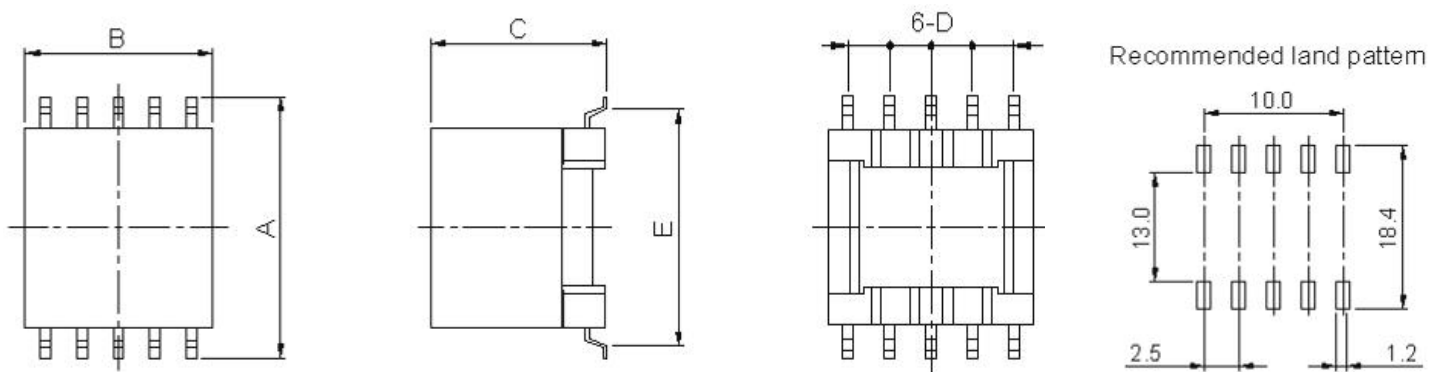


Fig. 7

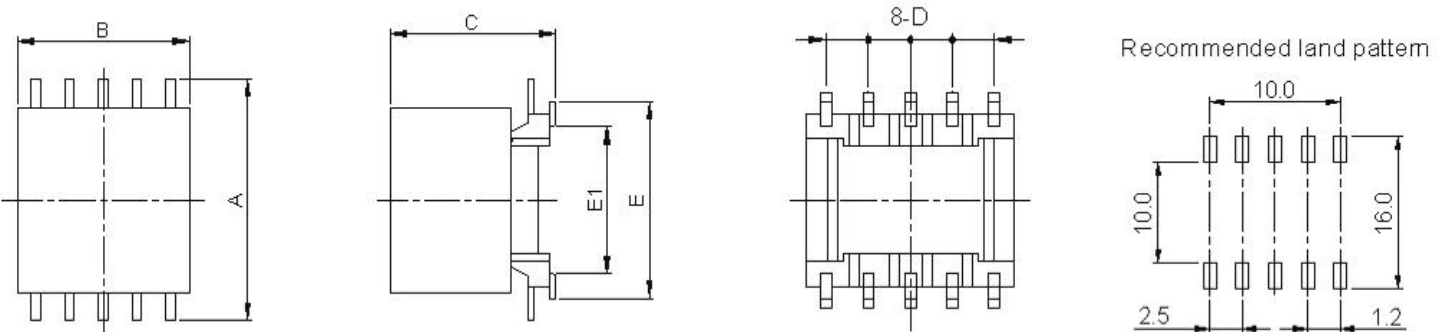
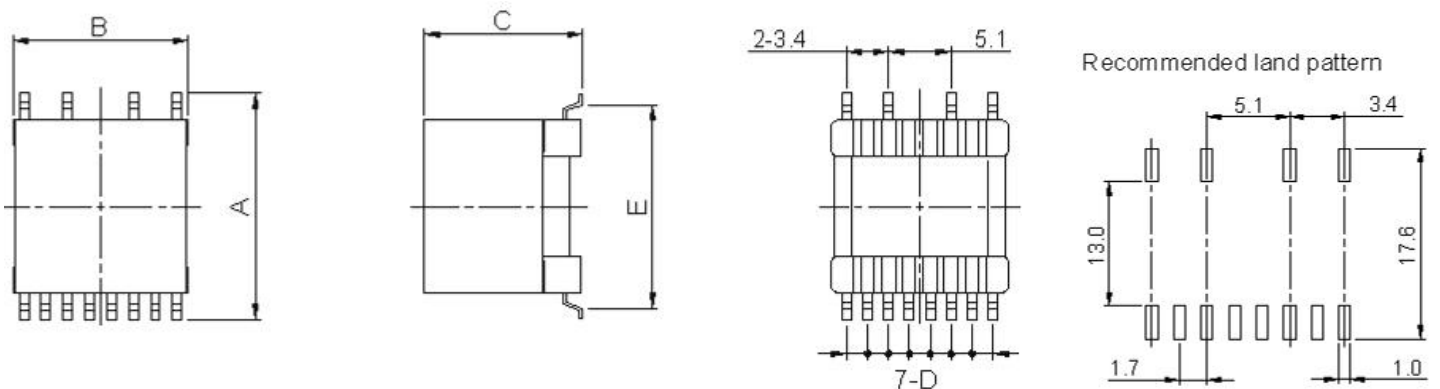


Fig. 8

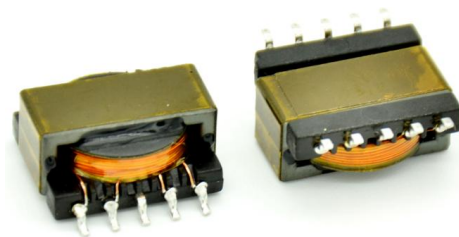


# SMT POWER TRANSFORMERS

## ER Series

### Features

- High power density and high efficiency/高功率密度，高效率
- Multiple-output is available/多路输出
- Low height solution/低高度方案
- Operating frequency up to 500kHz/最大工作频率 500kHz
- Custom designs available/客户定制



### Application

- Network, POE, Router/网络产品，POE，路由器
- Solar inverter, Server, Amplifier/太阳能逆变器，服务器，音响功放
- Medical instrument power supply/医疗仪器电源
- Variable-frequency drive/变频器
- Industrial power supply/工业电源
- Smart home electronics/智能家用电器
- Electrical power equipment/电力设备
- Test instrument/测试仪器

### Specifications

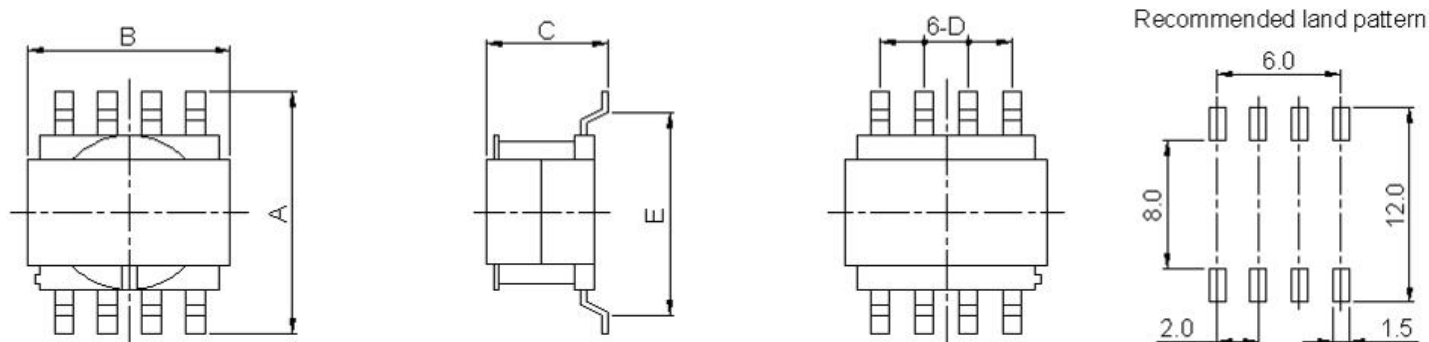
| Size    | Fig. | A (Max.) | B (Max.) | C (Max.) | D (Nom.) | E (Nom.) | F (Nom.) | Pins (Optional) | fsw (kHz) | Power (W) <sup>2</sup> |
|---------|------|----------|----------|----------|----------|----------|----------|-----------------|-----------|------------------------|
| SER7.5  | 1    | 11.0     | 8.5      | 6.0      | 1.75     | 7.8      | 0.6x0.25 | 4+4             | 100       | 1-3                    |
| SER9.5  | 1    | 12.5     | 10.5     | 6.5      | 2.0      | 10.1     | 0.7x0.25 | 4+4             | 100       | 3-5                    |
| SER11.5 | 2    | 13.2     | 11.5     | 6.8      | 2.0      | 11.0     | 0.7x0.25 | 4+4             | 100       | 5-8                    |
|         | 3    | 14.1     | 11.5     | 6.8      | 2.0      | 11.0     | 0.7x0.25 | 5+5             | 100       |                        |
| SER14.5 | 4    | 17.8     | 15.8     | 7.8      | 2.5      | 14.6     | 0.7x0.30 | 5+5             | 100       | 8-15                   |

1. Operating Temperature: -40°C~+125°C(Includes temperature when the coil is heated).

2. Output power is only for reference at switching frequency 100kHz.

### Mechanical

Fig. 1



# SMT POWER TRANSFORMERS

## ER Series

Fig. 2

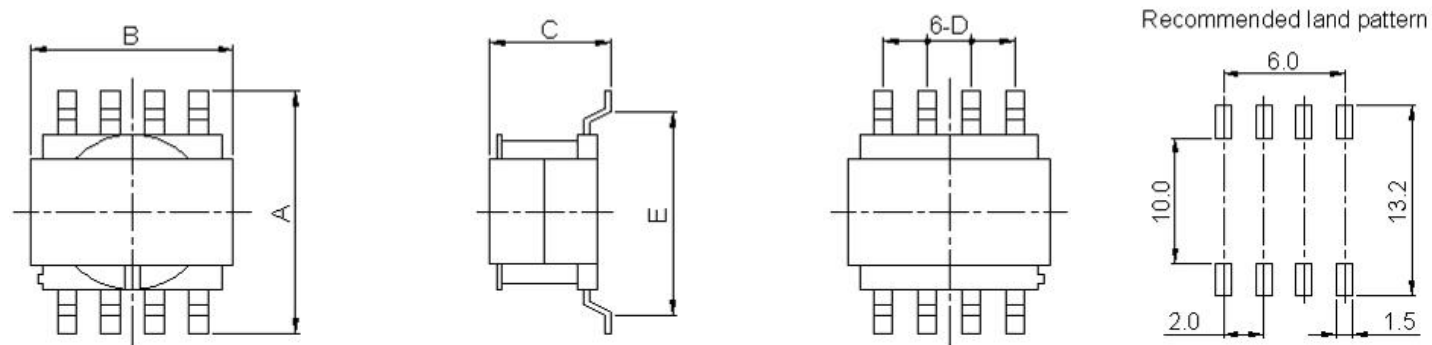


Fig. 3

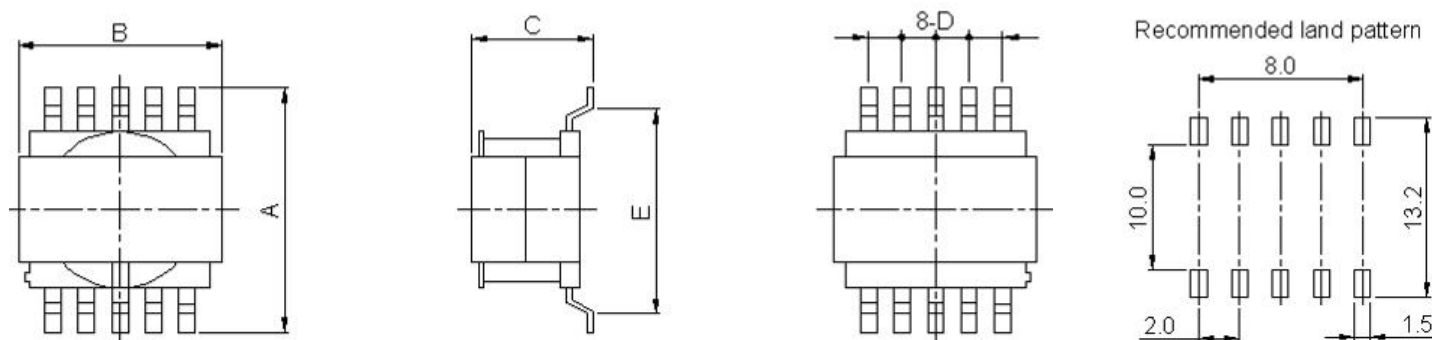
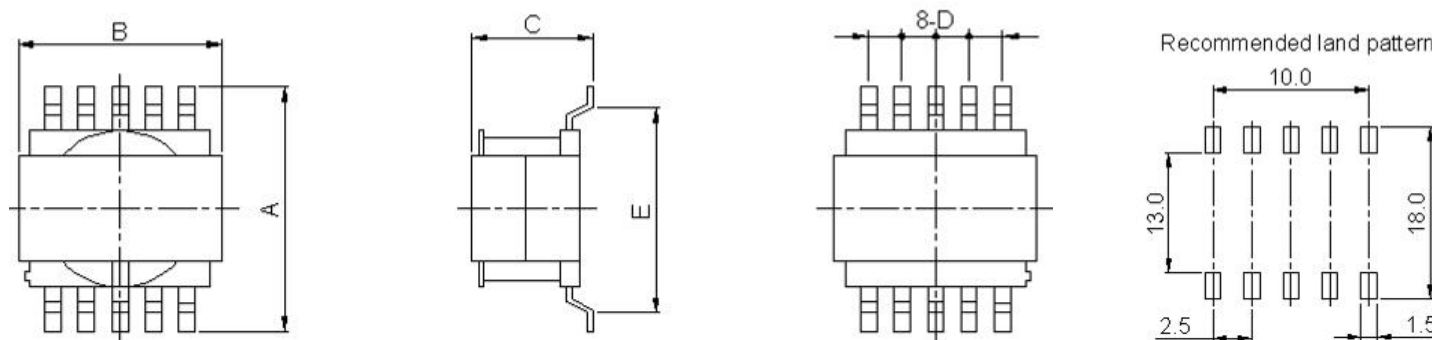


Fig. 4

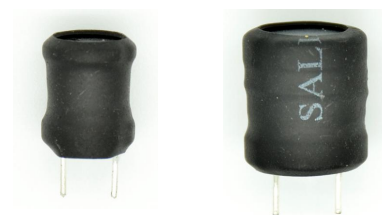


# THT POWER INDUCTORS

## Unshielded Drum Core Series

### Features

- Low cost inductor/低成本电感
- High inductance is up to 39mH/电感值最大 39mH
- Hot shrinkable tube protection available/热收缩套管保护
- Custom designs available/客户定制



### Application

- Switching mode power supply/开关电源

### Electrical Specifications @25°C

| Ordering Code | Fig. | Inductance @1kHz<br>( $\mu$ H Min.) | D.C.R.<br>( $\Omega$ Max.) | Saturation<br>Current (A) <sup>2</sup> | Temperature<br>Rise Current (A) <sup>3</sup> |
|---------------|------|-------------------------------------|----------------------------|--|--|
| DR4T-001      | 1    | 12.0                                | 0.120                      | 1.60                                   | 1.65   |
| DR9T-001      | 1    | 15.0                                | 0.070                      | 1.70                                   | 2.40   |
| DR7T-002      | 1    | 100.0                               | 0.240                      | 0.69                                   | 1.20   |
| DR7T-001      | 1    | 220.0                               | 0.730                      | 0.70                                   | 0.69   |
| DR12T-001     | 1    | 390.0                               | 0.350                      | 0.90                                   | 1.10   |
| DR8T-001      | 1    | 500.0                               | 1.250                      | 0.25                                   | 0.52   |
| DR16T-001     | 1    | 520.0                               | 0.350                      | 1.60                                   | 1.10   |
| DR5T-001      | 1    | 1000.0                              | 5.000                      | 0.03                                   | 0.24   |
| DR6T-001      | 1    | 1000.0                              | 4.000                      | 0.30                                   | 0.27   |
| DR10T-001     | 1    | 1200.0                              | 0.960                      | 0.65                                   | 0.60   |
| DR10T-002     | 1    | 1200.0                              | 2.000                      | 0.80                                   | 0.41   |
| DR15T-001     | 1    | 1600.0                              | 1.200                      | 0.39                                   | 0.53   |
| DR8T-002      | 1    | 2200.0                              | 5.600                      | 0.25                                   | 0.22   |
| DR6T-002      | 1    | 39000.0                             | 96.000                     | 0.01                                   | 0.02   |
| DR10T-003     | 1    | 39000.0                             | 29.000                     | 0.07                                   | 0.11   |
| DR4-001       | 2    | 12.0                                | 0.120                      | 1.60                                   | 1.70   |
| DR9-001       | 2    | 15.0                                | 0.070                      | 1.70                                   | 2.45   |
| DR7-002       | 2    | 100.0                               | 0.240                      | 0.69                                   | 1.25   |
| DR7-001       | 2    | 220.0                               | 0.730                      | 0.70                                   | 0.72   |
| DR12-001      | 2    | 390.0                               | 0.350                      | 0.90                                   | 1.15   |
| DR8-001       | 2    | 500.0                               | 1.250                      | 0.25                                   | 0.55   |
| DR16-001      | 2    | 520.0                               | 0.350                      | 1.60                                   | 1.15   |
| DR5-001       | 2    | 1000.0                              | 5.000                      | 0.03                                   | 0.28   |
| DR6-001       | 2    | 1000.0                              | 4.000                      | 0.30                                   | 0.30   |
| DR10-001      | 2    | 1200.0                              | 0.960                      | 0.65                                   | 0.65   |
| DR10-002      | 2    | 1200.0                              | 2.000                      | 0.80                                   | 0.45   |
| DR15-001      | 2    | 1600.0                              | 1.200                      | 0.39                                   | 0.58   |
| DR8-002       | 2    | 2200.0                              | 5.600                      | 0.25                                   | 0.25   |
| DR6-002       | 2    | 39000.0                             | 96.000                     | 0.01                                   | 0.03   |
| DR10-003      | 2    | 39000.0                             | 29.000                     | 0.07                                   | 0.15   |

1. Operating Temperature: -40°C~+120°C (Includes temperature when the coil is heated)
2. Saturation Current: DC current which causes the inductance to drop 30% from the nominal value
3. Temperature Rise Current: DC current which causes the coil temperature rise 40°C (Ta=20°C)

# THT POWER INDUCTORS

## Unshielded Drum Core Series

### Mechanical

Fig. 1

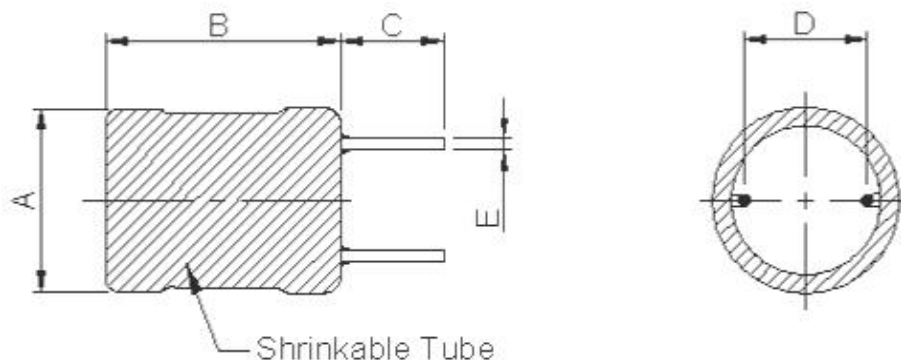
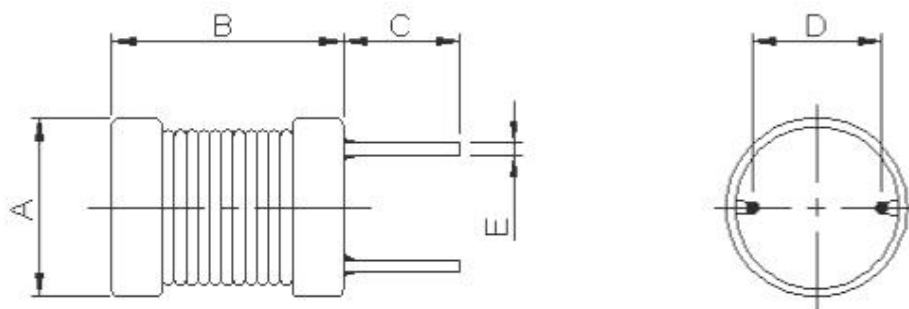


Fig. 2



### Dimensions (mm)

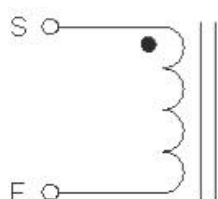
| Ordering Code | Fig. | A (Max.) | B (Max.) | C (Nom.) | D (Nom.) | E (Nom.) |
|---------------|------|----------|----------|----------|----------|----------|
| DR4T-001      | 1    | 6.0      | 8.5      | 5.0      | 2.0      | 0.5      |
| DR9T-001      | 1    | 11.0     | 14.5     | 5.0      | 5.0      | 0.8      |
| DR7T-002      | 1    | 9.0      | 11.5     | 5.0      | 5.0      | 0.6      |
| DR7T-001      | 1    | 9.0      | 9.5      | 5.0      | 5.0      | 0.6      |
| DR12T-001     | 1    | 14.0     | 17.5     | 5.0      | 7.5      | 0.8      |
| DR8T-001      | 1    | 10.0     | 10.5     | 5.0      | 5.0      | 0.6      |
| DR16T-001     | 1    | 18.0     | 20.5     | 5.0      | 9.5      | 0.8      |
| DR5T-001      | 1    | 7.0      | 9.5      | 5.0      | 2.5      | 0.6      |
| DR6T-001      | 1    | 8.0      | 10.5     | 5.0      | 3.0      | 0.6      |
| DR10T-001     | 1    | 12.0     | 14.5     | 5.0      | 5.0      | 0.8      |
| DR10T-002     | 1    | 12.0     | 17.5     | 5.0      | 7.0      | 0.8      |
| DR15T-001     | 1    | 17.0     | 20.5     | 5.0      | 10.0     | 0.8      |
| DR8T-002      | 1    | 10.0     | 12.5     | 5.0      | 5.0      | 0.6      |
| DR6T-002      | 1    | 8.0      | 12.5     | 5.0      | 3.0      | 0.6      |
| DR10T-003     | 1    | 12.0     | 18.5     | 5.0      | 7.0      | 0.8      |

# THT POWER INDUCTORS

## Unshielded Drum Core Series

|          |   |      |      |     |      |     |
|----------|---|------|------|-----|------|-----|
| DR4-001  | 2 | 5.0  | 7.0  | 5.0 | 2.0  | 0.5 |
| DR9-001  | 2 | 10.0 | 13.0 | 5.0 | 5.0  | 0.8 |
| DR7-002  | 2 | 8.0  | 10.0 | 5.0 | 5.0  | 0.6 |
| DR7-001  | 2 | 8.0  | 8.0  | 5.0 | 5.0  | 0.6 |
| DR12-001 | 2 | 13.0 | 16.0 | 5.0 | 7.5  | 0.8 |
| DR8-001  | 2 | 9.0  | 9.0  | 5.0 | 5.0  | 0.6 |
| DR16-001 | 2 | 17.0 | 19.0 | 5.0 | 9.5  | 0.8 |
| DR10-001 | 2 | 11.0 | 13.0 | 5.0 | 5.0  | 0.8 |
| DR10-002 | 2 | 11.0 | 16.0 | 5.0 | 7.0  | 0.8 |
| DR15-001 | 2 | 16.0 | 19.0 | 5.0 | 10.0 | 0.8 |
| DR8-002  | 2 | 9.0  | 11.0 | 5.0 | 5.0  | 0.6 |
| DR6-002  | 2 | 7.0  | 11.0 | 5.0 | 3.0  | 0.6 |
| DR10-003 | 2 | 11.0 | 17.0 | 5.0 | 7.0  | 0.8 |

### Schematic



# THT POWER INDUCTORS

## Toroidal Series

### Features

- Low cost inductor/低成本电感
- Good saturation current/好的饱和电流
- Frequency up to 1MHz/最大频率 1MHz
- Custom designs available/客户定制

### Application

- Switching mode power supply/开关电源



### Electrical Specifications @25°C

| Ordering Code | Fig. | Inductance @1kHz<br>( $\mu\text{H}$ Min.) | D.C.R.<br>( $\Omega$ Max.) | Saturation<br>Current ( $\text{A}$ ) <sup>2</sup> | Temperature<br>Rise Current ( $\text{A}$ ) <sup>3</sup> |
|---------------|------|---|----------------------------|---|---|
| TV32-001      | 1    | 35.0                                      | 0.030                      | 8.00  | 5.80  |
| TV38-001      | 1    | 50.0                                      | 0.020                      | 11.20   | 6.20  |
| TV39-001      | 1    | 50.0                                      | 0.010                      | 16.00   | 6.70  |
| TV30-002      | 1    | 55.0                                      | 0.020                      | 7.20  | 6.20  |
| TV19-002      | 1    | 60.0                                      | 0.050                      | 1.50  | 4.50  |
| TV30-003      | 1    | 68.0                                      | 0.300                      | 4.40  | 0.80  |
| TV25-001      | 1    | 90.0                                      | 0.030                      | 4.80  | 5.80  |
| TV15-001      | 1    | 120.0                                     | 0.300                      | 0.90  | 1.10  |
| TV21-001      | 1    | 120.0                                     | 0.050                      | 0.03  | 4.50  |
| TV18-001      | 1    | 300.0                                     | 0.600                      | 1.00  | 0.80  |
| TV28-001      | 1    | 350.0                                     | 0.080                      | 3.20  | 2.40  |
| TV28-002      | 1    | 650.0                                     | 0.150                      | 2.40  | 1.40  |
| TV30-001      | 1    | 730.0                                     | 0.200                      | 6.40  | 1.20  |
| TV17-001      | 1    | 1700.0                                    | 0.200                      | 1.00  | 1.20  |
| TV19-001      | 1    | 10000.0                                   | 0.500                      | 1.60  | 1.00  |
| TVB29-001     | 2    | 40.0                                      | 0.020                      | 7.20  | 6.10  |
| TVB29-003     | 2    | 55.0                                      | 0.020                      | 7.20  | 6.10  |
| TVB26-002     | 2    | 62.0                                      | 0.120                      | 3.80  | 1.60  |
| TVB29-002     | 2    | 70.0                                      | 0.020                      | 4.80  | 6.10  |
| TVB26-001     | 2    | 90.0                                      | 0.030                      | 4.80  | 5.70  |
| TVB36-001     | 2    | 100.0                                     | 0.030                      | 6.80  | 5.70  |
| TVB28-002     | 2    | 270.0                                     | 0.080                      | 3.70  | 2.20  |
| TVB28-004     | 2    | 380.0                                     | 0.080                      | 3.70  | 2.30  |
| TVB49-001     | 2    | 400.0                                     | 0.100                      | 4.50  | 1.80  |
| TVB28-001     | 2    | 650.0                                     | 0.150                      | 2.40  | 1.30  |
| TVB28-005     | 2    | 700.0                                     | 0.180                      | 1.50  | 1.00  |
| TVB28-003     | 2    | 1000.0                                    | 0.220                      | 1.50  | 0.70  |
| TVP29-001     | 3    | 40.0                                      | 0.020                      | 7.20  | 6.10  |
| TVP29-003     | 3    | 55.0                                      | 0.020                      | 7.20  | 6.10  |
| TVP26-002     | 3    | 62.0                                      | 0.120                      | 3.80  | 1.60  |
| TVP29-002     | 3    | 70.0                                      | 0.020                      | 4.80  | 6.10  |
| TVP26-001     | 3    | 90.0                                      | 0.030                      | 4.80  | 5.70  |

# THT POWER INDUCTORS

## Toroidal Series

|           |   |        |       |      |      |
|-----------|---|--------|-------|------|------|
| TVP36-001 | 3 | 100.0  | 0.030 | 6.80 | 5.70 |
| TVP28-002 | 3 | 270.0  | 0.080 | 3.70 | 2.20 |
| TVP28-004 | 3 | 380.0  | 0.080 | 3.70 | 2.30 |
| TVP49-001 | 3 | 400.0  | 0.100 | 4.50 | 1.80 |
| TVP28-001 | 3 | 650.0  | 0.150 | 2.40 | 1.30 |
| TVP28-005 | 3 | 700.0  | 0.180 | 1.50 | 1.00 |
| TVP28-003 | 3 | 1000.0 | 0.220 | 1.50 | 0.70 |
| THB18-001 | 4 | 45.0   | 0.040 | 1.50 | 4.90 |
| THB40-001 | 4 | 550.0  | 0.070 | 4.10 | 2.60 |
| TH19-001  | 5 | 20.0   | 0.020 | 8.80 | 6.20 |
| TH18-001  | 5 | 35.0   | 0.040 | 1.50 | 5.00 |
| TH17-001  | 5 | 100.0  | 0.100 | 0.90 | 1.90 |
| TH40-001  | 5 | 650.0  | 0.070 | 4.10 | 2.60 |

1. Operating Temperature:  $-40^{\circ}\text{C}\sim+120^{\circ}\text{C}$  (Includes temperature when the coil is heated)
2. Saturation Current: DC current which causes the inductance to drop 30% from the nominal value
3. Temperature Rise Current: DC current which causes the coil temperature rise  $40^{\circ}\text{C}$  ( $T_a=20^{\circ}\text{C}$ )

## Mechanical

Fig. 1

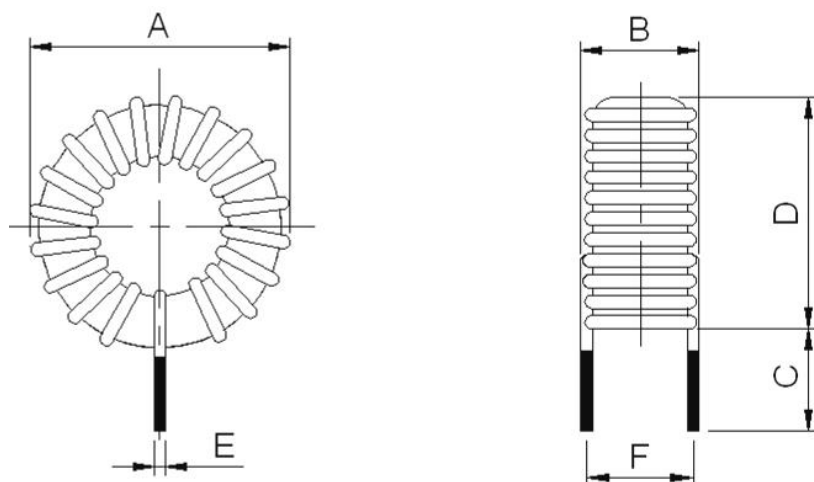
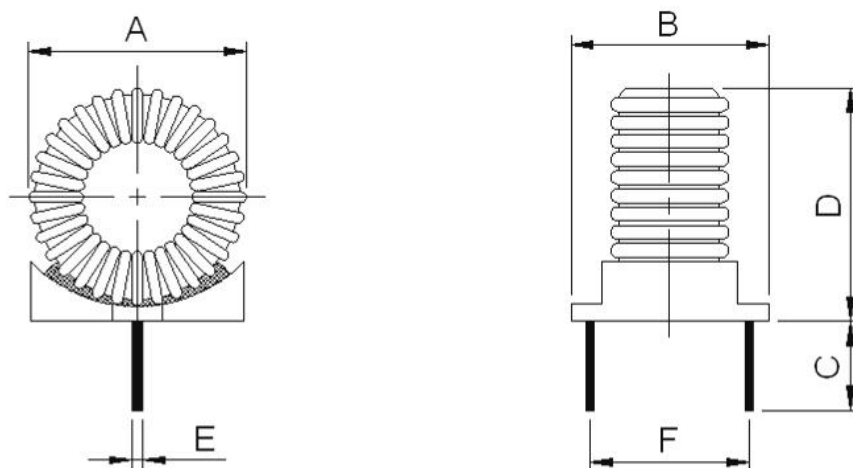


Fig. 2



# THT POWER INDUCTORS

## Toroidal Series

Fig. 3

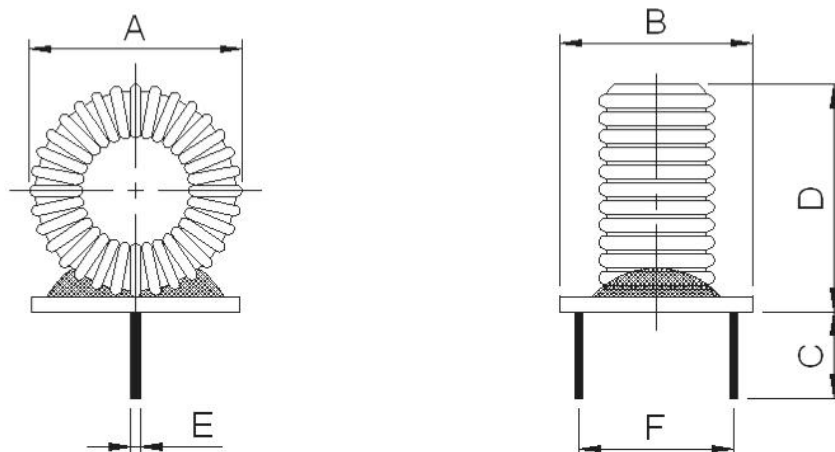


Fig. 4

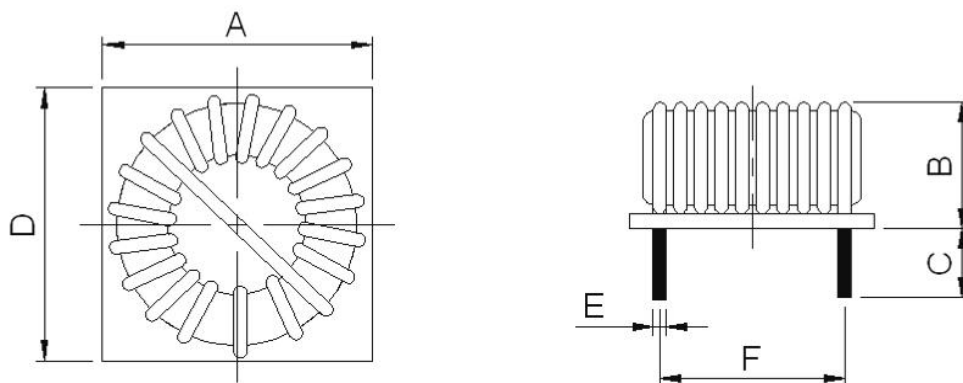
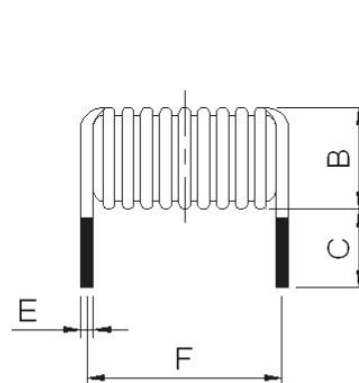
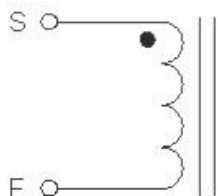


Fig. 5



## Schematic



# THT POWER INDUCTORS

## Toroidal Series

### Dimensions (mm)

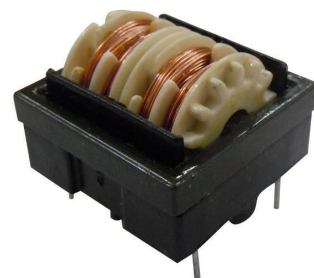
| Ordering Code | Fig. | A (Max.) | B (Max.) | C (Nom.) | D (Max.) | E (Nom.) | F (Nom.) |
|---------------|------|----------|----------|----------|----------|----------|----------|
| TV32-001      | 1    | 36.0     | 21.0     | 5.0      | 36.0     | 2.0      | 19.0     |
| TV38-001      | 1    | 44.0     | 26.0     | 5.0      | 44.0     | 2.2      | 24.0     |
| TV39-001      | 1    | 45.0     | 39.0     | 5.0      | 45.0     | 3.6      | 35.0     |
| TV30-002      | 1    | 35.0     | 14.0     | 5.0      | 35.0     | 1.6      | 12.0     |
| TV19-0002     | 1    | 23.0     | 13.0     | 5.0      | 23.0     | 1.1      | 8.0      |
| TV30-003      | 1    | 35.0     | 25.0     | 5.0      | 35.0     | 3.8      | 13.0     |
| TV25-001      | 1    | 29.0     | 22.0     | 5.0      | 29.0     | 1.3      | 19.0     |
| TV15-001      | 1    | 17.0     | 10.0     | 5.0      | 17.0     | 0.6      | 7.0      |
| TV21-001      | 1    | 25.0     | 11.0     | 5.0      | 25.0     | 0.7      | 9.0      |
| TV18-001      | 1    | 22.0     | 12.0     | 5.0      | 22.0     | 0.8      | 10.0     |
| TV28-001      | 1    | 34.0     | 18.0     | 5.0      | 34.0     | 1.1      | 18.0     |
| TV28-002      | 1    | 34.0     | 21.0     | 5.0      | 34.0     | 1.1      | 18.0     |
| TV30-001      | 1    | 35.0     | 20.0     | 5.0      | 35.0     | 0.8      | 17.0     |
| TV17-001      | 1    | 19.0     | 12.0     | 5.0      | 19.0     | 0.8      | 9.5      |
| TV19-001      | 1    | 23.0     | 12.0     | 5.0      | 23.0     | 0.6      | 11.0     |
| TVB29-001     | 2    | 36.0     | 17.0     | 5.0      | 38.0     | 1.6      | 15.0     |
| TVB29-003     | 2    | 36.0     | 17.0     | 5.0      | 39.0     | 1.6      | 15.0     |
| TVB26-002     | 2    | 29.0     | 15.0     | 5.0      | 31.0     | 1.2      | 13.0     |
| TVB29-002     | 2    | 36.0     | 20.0     | 5.0      | 39.0     | 3.2      | 17.0     |
| TVB26-001     | 2    | 29.0     | 23.0     | 5.0      | 31.0     | 1.5      | 20.0     |
| TVB36-001     | 2    | 44.0     | 30.0     | 5.0      | 47.0     | 1.5      | 27.0     |
| TVB28-002     | 2    | 35.0     | 21.0     | 5.0      | 36.0     | 1.2      | 18.0     |
| TVB28-004     | 2    | 35.0     | 23.0     | 5.0      | 39.0     | 1.3      | 20.0     |
| TVB49-001     | 2    | 54.0     | 24.0     | 5.0      | 59.0     | 1.3      | 21.0     |
| TVB28-001     | 2    | 35.0     | 22.0     | 5.0      | 37.0     | 1.2      | 19.0     |
| TVB28-005     | 2    | 35.0     | 22.0     | 5.0      | 38.0     | 1.0      | 19.0     |
| TVB28-003     | 2    | 35.0     | 21.0     | 5.0      | 38.0     | 1.0      | 18.0     |
| TVP29-001     | 3    | 36.0     | 17.0     | 5.0      | 38.0     | 1.6      | 15.0     |
| TVP29-003     | 3    | 36.0     | 17.0     | 5.0      | 39.0     | 1.6      | 15.0     |
| TVP26-002     | 3    | 29.0     | 15.0     | 5.0      | 31.0     | 1.2      | 13.0     |
| TVP29-002     | 3    | 36.0     | 20.0     | 5.0      | 39.0     | 3.2      | 17.0     |
| TVP26-001     | 3    | 29.0     | 23.0     | 5.0      | 31.0     | 1.5      | 20.0     |
| TVP36-001     | 3    | 44.0     | 30.0     | 5.0      | 47.0     | 1.5      | 27.0     |
| TVP28-002     | 3    | 35.0     | 21.0     | 5.0      | 36.0     | 1.2      | 18.0     |
| TVP28-004     | 3    | 35.0     | 23.0     | 5.0      | 39.0     | 1.3      | 20.0     |
| TVP49-001     | 3    | 54.0     | 24.0     | 5.0      | 59.0     | 1.3      | 21.0     |
| TVP28-001     | 3    | 35.0     | 22.0     | 5.0      | 37.0     | 1.2      | 19.0     |
| TVP28-005     | 3    | 35.0     | 22.0     | 5.0      | 38.0     | 1.0      | 19.0     |
| TVP28-003     | 3    | 35.0     | 21.0     | 5.0      | 38.0     | 1.0      | 18.0     |
| THB18-001     | 4    | 20.0     | 14.0     | 5.0      | 20.0     | 0.9      | 18.5     |
| THB40-001     | 4    | 42.0     | 30.0     | 5.0      | 42.0     | 1.6      | 44.0     |
| TH19-001      | 5    | 21.0     | 23.0     | 5.0      | 21.0     | 1.6      | 29.0     |
| TH18-001      | 5    | 20.0     | 14.0     | 5.0      | 20.0     | 0.9      | 18.5     |
| TH17-001      | 5    | 19.0     | 12.0     | 5.0      | 19.0     | 0.8      | 14.0     |
| TH40-001      | 5    | 44.0     | 29.0     | 5.0      | 44.0     | 1.6      | 44.0     |

# THT COMMON MODE CHOKES

## ET Series – Horizontal

### Features

- Inductance is up to 80mH/最大电感值 80mH
- 1500Vrms isolation between windings/耐压 1500Vrms
- Wide range of inductance and current available/宽范围电感和电流



### Application

- Switching mode power supply/开关电源

### Electrical Specifications @25°C

| Type  | Ordering Code | Inductance @1kHz<br>(mH Min.) | D.C.R.<br>( $\Omega$ Max.) | I <sub>rated</sub> (A) <sup>2</sup> |
|-------|---------------|-------------------------------|----------------------------|-------------------------------------|
| ET24H | ET24H-001     | 3.3                           | 0.110                      | 2.30                                |
|       | ET24H-002     | 6.8                           | 0.170                      | 1.70                                |
|       | ET24H-003     | 8.2                           | 0.180                      | 1.60                                |
|       | ET24H-004     | 15.0                          | 0.390                      | 1.00                                |
|       | ET24H-005     | 20.0                          | 0.400                      | 0.95                                |
|       | ET24H-006     | 39.0                          | 1.000                      | 0.67                                |
|       | ET24H-007     | 47.0                          | 1.000                      | 0.67                                |
|       | ET24H-008     | 68.0                          | 2.000                      | 0.45                                |
|       | ET24H-009     | 80.0                          | 2.100                      | 0.43                                |
| ET28H | ET28H-001     | 1.8                           | 0.080                      | 2.50                                |
|       | ET28H-002     | 6.8                           | 0.230                      | 1.60                                |
|       | ET28H-003     | 12.0                          | 0.380                      | 1.20                                |
|       | ET28H-004     | 22.0                          | 0.650                      | 1.00                                |
|       | ET28H-005     | 39.0                          | 1.450                      | 0.70                                |
|       | ET28H-006     | 68.0                          | 1.850                      | 0.60                                |
|       | ET28H-007     | 80.0                          | 2.200                      | 0.40                                |
| ET35H | ET35H-001     | 5.0                           | 0.060                      | 6.00                                |
|       | ET35H-002     | 10.0                          | 0.120                      | 3.00                                |
|       | ET35H-003     | 39.0                          | 0.350                      | 2.20                                |
|       | ET35H-004     | 47.0                          | 0.500                      | 1.60                                |
|       | ET35H-005     | 80.0                          | 0.700                      | 1.20                                |

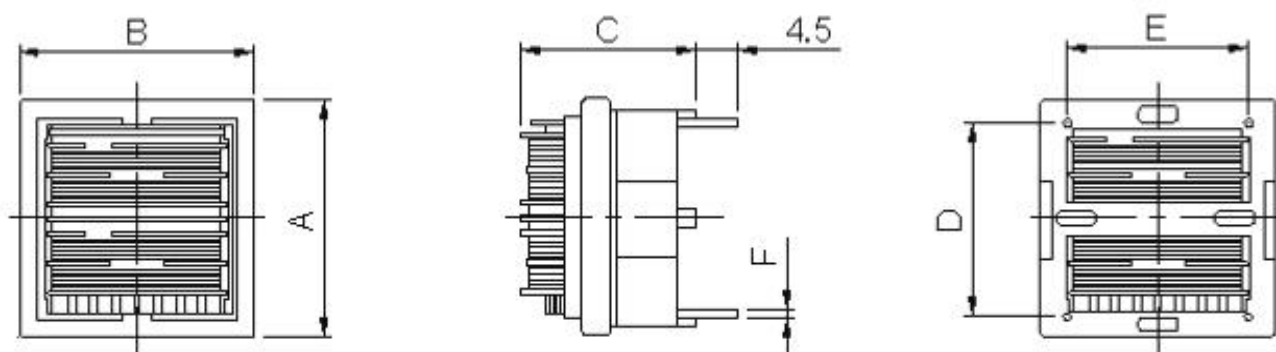
1. Operating Temperature: -40°C~+120°C (Includes temperature when the coil is heated)

2. I<sub>rated</sub>: DC current which causes the coil temperature rise 40°C (T<sub>a</sub>=20°C)

# THT COMMON MODE CHOKES

## ET Series – Horizontal

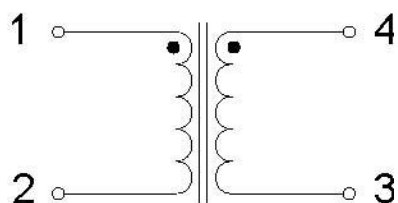
### Mechanical



### Dimensions (mm)

| Ordering Code | A (Max.) | B (Max.) | C (Nom.) | D (Max.) | E (Nom.) | F (Nom.) |
|---------------|----------|----------|----------|----------|----------|----------|
| ET24H         | 25.0     | 25.0     | 20.0     | 21.0     | 15.0     | Φ0.8     |
| ET28H         | 31.0     | 31.0     | 25.0     | 24.0     | 20.0     | Φ0.8     |
| ET35H         | 38.0     | 38.0     | 30.0     | 30.0     | 25.0     | Φ1.2     |

### Schematic



# THT COMMON MODE CHOKES

## ET Series –Vertical

### Features

- Inductance is up to 80mH/最大电感值 80mH
- 1500Vrms isolation between windings/耐压 1500Vrms
- Wide range of inductance and current available/宽范围电感和电流



### Application

- Switching mode power supply/开关电源

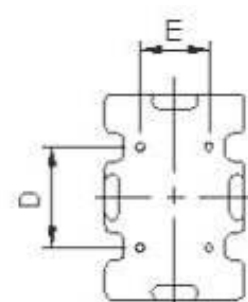
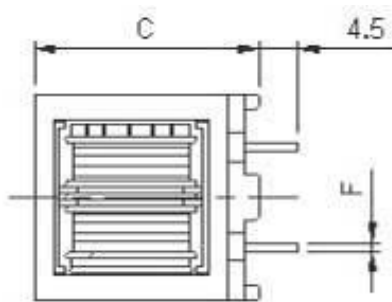
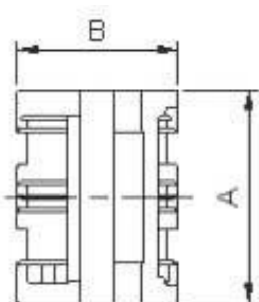
### Electrical Specifications @25°C

| Type | Ordering Code | Inductance @1kHz<br>(mH Min.) | D.C.R.<br>( $\Omega$ Max.) | I <sub>rated</sub> (A) <sup>2</sup> |
|------|---------------|-------------------------------|----------------------------|-------------------------------------|
| ET24 | ET24-0001     | 3.3                           | 0.110                      | 2.30                                |
|      | ET24-002      | 6.8                           | 0.170                      | 1.70                                |
|      | ET24-003      | 8.2                           | 0.180                      | 1.60                                |
|      | ET24-004      | 15.0                          | 0.390                      | 1.00                                |
|      | ET24-005      | 20.0                          | 0.400                      | 0.95                                |
|      | ET24-006      | 39.0                          | 1.000                      | 0.67                                |
|      | ET24-007      | 47.0                          | 1.000                      | 0.67                                |
|      | ET24-008      | 68.0                          | 2.000                      | 0.45                                |
|      | ET24-009      | 80.0                          | 2.100                      | 0.43                                |
| ET28 | ET28-001      | 1.8                           | 0.080                      | 2.50                                |
|      | ET28-002      | 6.8                           | 0.230                      | 1.60                                |
|      | ET28-003      | 12.0                          | 0.380                      | 1.20                                |
|      | ET28-004      | 22.0                          | 0.650                      | 1.00                                |
|      | ET28-005      | 39.0                          | 1.450                      | 0.70                                |
|      | ET28-006      | 68.0                          | 1.850                      | 0.60                                |
|      | ET28-007      | 80.0                          | 2.200                      | 0.40                                |
| ET35 | ET35-001      | 5.0                           | 0.060                      | 6.00                                |
|      | ET35-002      | 10.0                          | 0.120                      | 3.00                                |
|      | ET35-003      | 39.0                          | 0.350                      | 2.20                                |
|      | ET35-004      | 47.0                          | 0.500                      | 1.60                                |
|      | ET35-005      | 80.0                          | 0.700                      | 1.20                                |

1. Operating Temperature: -40°C~+120°C(Includes temperature when the coil is heated)

2. I<sub>rated</sub>: DC current which causes the coil temperature rise 40°C(T<sub>a</sub>=20°C)

### Mechanical



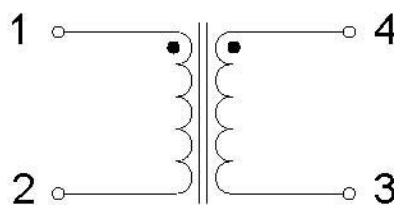
# THT COMMON MODE CHOKES

## ET Series –Vertical

### Dimensions (mm)

| Ordering Code | A (Max.) | B (Max.) | C (Nom.) | D (Max.) | E (Nom.) | F (Nom.) |
|---------------|----------|----------|----------|----------|----------|----------|
| ET24          | 26.0     | 19.0     | 32.0     | 13.0     | 10.0     | Φ0.8     |
| ET28          | 31.0     | 23.0     | 37.0     | 13.0     | 10.0     | Φ0.8     |
| ET35          | 38.0     | 27.0     | 44.0     | 21.0     | 15.0     | Φ1.2     |

### Schematic

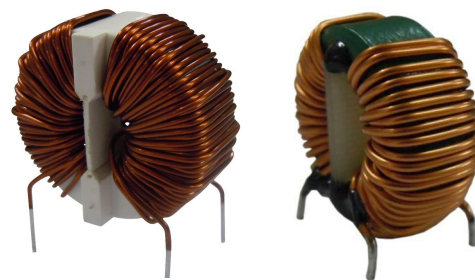


# THT COMMON MODE CHOKES

## Toroidal Series

### Features

- Inductance is up to 68mH/最大电感值 68mH
- 1500Vrms isolation between windings/耐压 1500Vrms
- Wide range of inductance and current available/宽范围电感和电流



### Application

- Switching mode power supply/开关电源

### Electrical Specifications @25°C

| Type     | Fig. | Inductance @1kHz<br>(mH Min.) | D.C.R.<br>(Ω Max.) | I <sub>rated</sub> (A) <sup>2</sup> |
|----------|------|-------------------------------|--------------------|-------------------------------------|
| TCC-001  | 1    | 0.24                          | 0.005              | 14.40                               |
| TCC-002  | 1    | 0.55                          | 0.006              | 12.00                               |
| TCC-003  | 1    | 0.98                          | 0.009              | 11.00                               |
| TCC-004  | 1    | 1.30                          | 0.014              | 9.80                                |
| TCC-005  | 1    | 2.20                          | 0.020              | 6.00                                |
| TCC-006  | 1    | 3.30                          | 0.030              | 5.00                                |
| TCC-007  | 1    | 4.60                          | 0.045              | 4.00                                |
| TCC-008  | 1    | 6.80                          | 0.100              | 2.80                                |
| TCC-009  | 1    | 8.00                          | 0.110              | 2.50                                |
| TCC-010  | 1    | 10.00                         | 0.140              | 2.10                                |
| TC16-001 | 2    | 0.20                          | 0.080              | 3.00                                |
| TC12-001 | 2    | 0.80                          | 0.020              | 6.00                                |
| TC25-002 | 2    | 0.90                          | 0.020              | 6.00                                |
| TC25-003 | 2    | 3.50                          | 0.050              | 4.00                                |
| TC20-001 | 2    | 4.90                          | 0.080              | 3.00                                |
| TC18-001 | 2    | 6.00                          | 0.050              | 4.00                                |
| TC16-002 | 2    | 13.00                         | 0.025              | 5.50                                |
| TC38-001 | 2    | 15.00                         | 0.070              | 3.50                                |
| TC25-001 | 2    | 68.00                         | 1.300              | 0.70                                |

1. Operating Temperature: -40°C~+120°C(Includes temperature when the coil is heated)

2. I<sub>rated</sub>: DC current which causes the coil temperature rise 40°C(T<sub>a</sub>=20°C)

# THT COMMON MODE CHOKES

## Toroidal Series

### Mechanical

Fig. 1

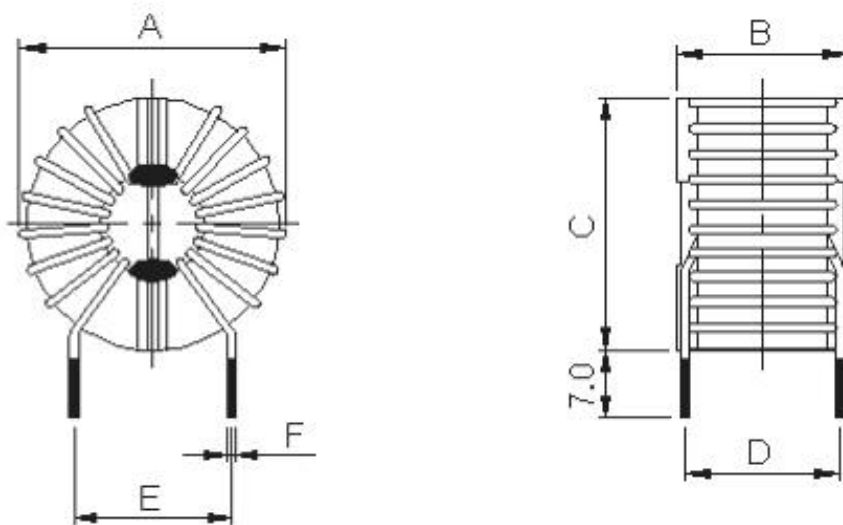
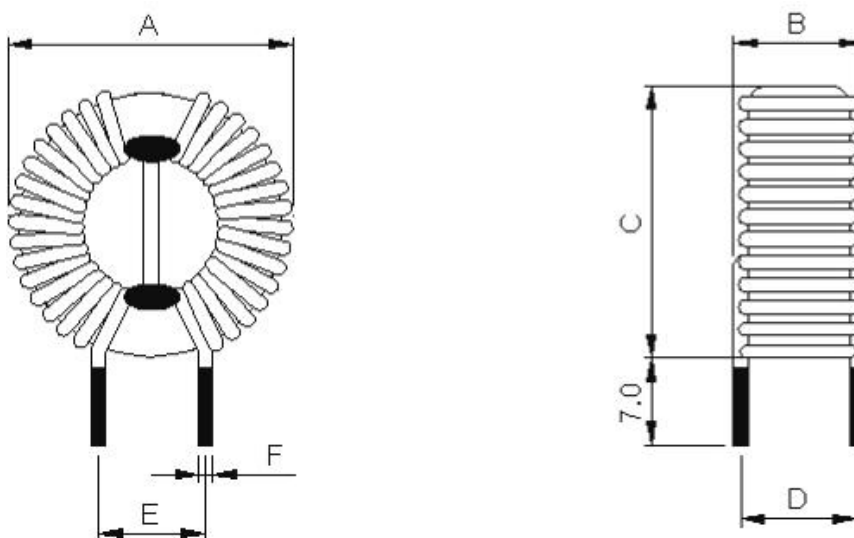


Fig. 2



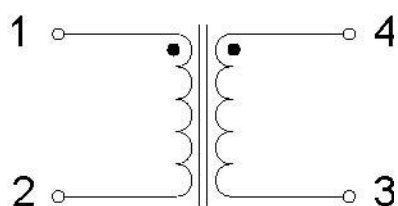
# THT COMMON MODE CHOKES

## Toroidal Series

### Dimensions (mm)

| Ordering Code | Fig. | A (Max.) | B (Max.) | C (Nom.) | D (Max.) | E (Nom.) | F (Nom.) |
|---------------|------|----------|----------|----------|----------|----------|----------|
| TCC-001       | 1    | 35.0     | 21.0     | 34.0     | 18.0     | 11.0     | Φ1.5     |
| TCC-002       | 1    | 35.0     | 21.0     | 34.0     | 18.0     | 11.0     | Φ1.5     |
| TCC-003       | 1    | 35.0     | 20.0     | 33.0     | 17.0     | 11.0     | Φ1.2     |
| TCC-004       | 1    | 35.0     | 20.0     | 33.0     | 17.0     | 11.0     | Φ1.1     |
| TCC-005       | 1    | 34.0     | 20.0     | 32.0     | 17.0     | 10.0     | Φ1.0     |
| TCC-006       | 1    | 33.0     | 20.0     | 32.0     | 17.0     | 10.0     | Φ0.9     |
| TCC-007       | 1    | 33.0     | 20.0     | 32.0     | 17.0     | 10.0     | Φ0.8     |
| TCC-008       | 1    | 32.0     | 20.0     | 31.0     | 17.0     | 10.0     | Φ0.6     |
| TCC-009       | 1    | 32.0     | 20.0     | 31.0     | 17.0     | 10.0     | Φ0.6     |
| TCC-010       | 1    | 32.0     | 20.0     | 31.0     | 17.0     | 10.0     | Φ0.5     |
| TC16-001      | 1    | 22.0     | 14.0     | 22.0     | 11.0     | 12.0     | Φ1.0     |
| TC12-001      | 2    | 16.0     | 8.0      | 16.0     | 6.0      | 10.0     | Φ0.6     |
| TC25-002      | 2    | 31.0     | 18.0     | 31.0     | 16.0     | 18.0     | Φ1.3     |
| TC25-003      | 2    | 31.0     | 18.0     | 31.0     | 16.0     | 18.0     | Φ1.0     |
| TC20-001      | 2    | 25.0     | 17.0     | 25.0     | 11.0     | 10.0     | Φ0.7     |
| TC18-001      | 2    | 23.0     | 13.0     | 23.0     | 10.0     | 5.0      | Φ0.7     |
| TC16-002      | 2    | 22.0     | 14.0     | 22.0     | 11.0     | 12.0     | Φ0.4     |
| TC38-001      | 2    | 51.0     | 29.0     | 51.0     | 25.0     | 35.0     | Φ1.1     |
| TC25-001      | 2    | 27.0     | 19.0     | 27.0     | 16.0     | 20.0     | Φ0.3     |

### Schematic

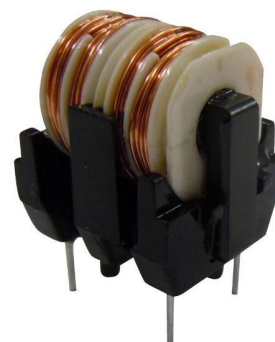


# THT COMMON MODE CHOKES

## UT Series

### Features

- Inductance is up to 47mH/最大电感值 47mH
- 1500Vrms isolation between windings/耐压 1500Vrms
- Wide range of inductance and current available/宽范围电感和电流



### Application

- Switching mode power supply/开关电源

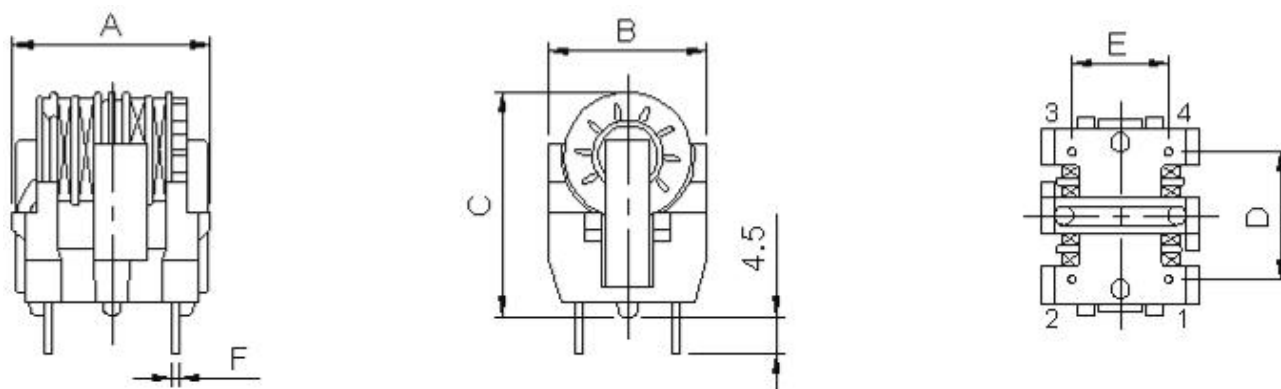
### Electrical Specifications @25°C

| Type | Ordering Code | Inductance @1kHz<br>(mH Min.) | D.C.R.<br>( $\Omega$ Max.) | I <sub>rated</sub> (A) <sup>2</sup> |
|------|---------------|-------------------------------|----------------------------|-------------------------------------|
| UT20 | UT20-001      | 0.33                          | 0.030                      | 3.20                                |
|      | UT20-002      | 0.47                          | 0.050                      | 2.60                                |
|      | UT20-003      | 0.68                          | 0.070                      | 2.20                                |
|      | UT20-004      | 1.00                          | 0.080                      | 1.80                                |
|      | UT20-005      | 2.20                          | 0.240                      | 1.30                                |
|      | UT20-006      | 3.90                          | 0.400                      | 1.00                                |
|      | UT20-007      | 10.00                         | 1.000                      | 0.60                                |
|      | UT20-008      | 22.00                         | 2.050                      | 0.40                                |
|      | UT20-009      | 33.00                         | 3.400                      | 0.30                                |
|      | UT20-010      | 47.00                         | 3.800                      | 0.25                                |

1. Operating Temperature: -40°C~+120°C (Includes temperature when the coil is heated)

2. I<sub>rated</sub>: DC current which causes the coil temperature rise 40°C (T<sub>a</sub>=20°C)

### Mechanical



# THT COMMON MODE CHOKES

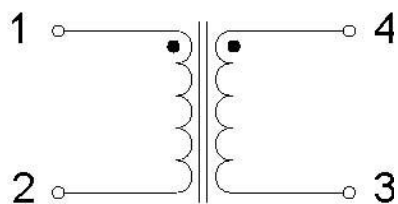
## UT Series

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### Dimensions (mm)

| Ordering Code | A (Max.) | B (Max.) | C (Nom.) | D (Max.) | E (Nom.) | F (Nom.) |
|---------------|----------|----------|----------|----------|----------|----------|
| UT20          | 23.0     | 18.0     | 23.0     | 13.0     | 10.0     | Φ0.8     |

### Schematic

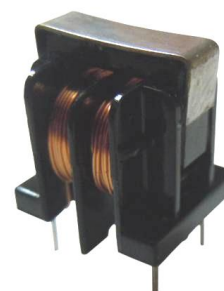


# THT COMMON MODE CHOKES

## UU Series

### Features

- Inductance is up to 50mH/最大电感值 50mH
- 1500Vrms isolation between windings/耐压 1500Vrms
- Wide range of inductance and current available/宽范围电感和电流



### Application

- Switching mode power supply/开关电源

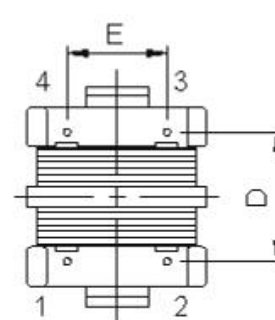
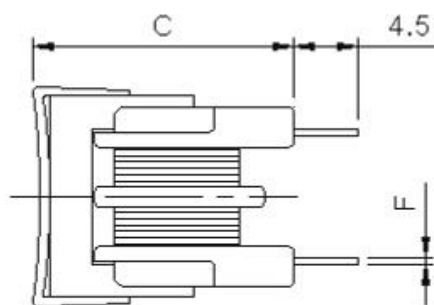
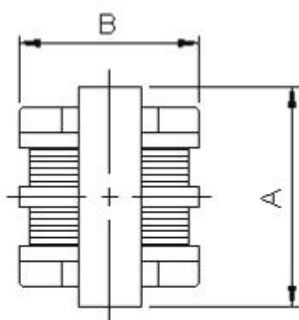
### Electrical Specifications @25°C

| Type   | Ordering Code | Inductance @1kHz<br>(mH Min.) | D.C.R.<br>( $\Omega$ Max.) | I <sub>rated</sub> (A) <sup>2</sup> |
|--------|---------------|-------------------------------|----------------------------|-------------------------------------|
| UU9.8  | UU9.8-001     | 0.47                          | 0.150                      | 1.00                                |
|        | UU9.8-002     | 0.68                          | 0.250                      | 0.85                                |
|        | UU9.8-003     | 1.00                          | 0.350                      | 0.70                                |
|        | UU9.8-004     | 2.20                          | 0.700                      | 0.50                                |
|        | UU9.8-005     | 4.70                          | 1.600                      | 0.34                                |
|        | UU9.8-006     | 6.80                          | 2.500                      | 0.25                                |
|        | UU9.8-007     | 10.00                         | 4.000                      | 0.20                                |
| UU10.5 | UU10.5-001    | 3.30                          | 0.720                      | 0.65                                |
|        | UU10.5-002    | 6.80                          | 1.260                      | 0.43                                |
|        | UU10.5-003    | 12.00                         | 2.200                      | 0.34                                |
|        | UU10.5-004    | 22.00                         | 3.640                      | 0.25                                |
|        | UU10.5-005    | 33.00                         | 5.740                      | 0.20                                |
|        | UU10.5-006    | 50.00                         | 9.200                      | 0.15                                |
| UU16   | UU16-001      | 1.50                          | 0.130                      | 1.85                                |
|        | UU16-002      | 4.00                          | 0.270                      | 1.20                                |
|        | UU16-003      | 8.00                          | 0.460                      | 0.90                                |
|        | UU16-004      | 20.00                         | 1.600                      | 0.50                                |
|        | UU16-005      | 30.00                         | 2.500                      | 0.40                                |

1. Operating Temperature: -40°C~+120°C(Includes temperature when the coil is heated)

2. I<sub>rated</sub>: DC current which causes the coil temperature rise 40°C(T<sub>a</sub>=20°C)

### Mechanical



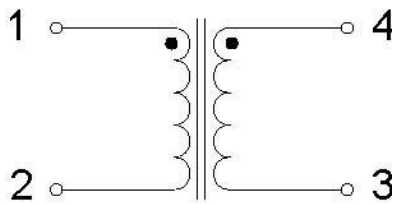
# THT COMMON MODE CHOKES

## UU Series

### Dimensions (mm)

| Ordering Code | A (Max.) | B (Max.) | C (Nom.) | D (Max.) | E (Nom.) | F (Nom.) |
|---------------|----------|----------|----------|----------|----------|----------|
| UU9.8         | 18.0     | 12.0     | 17.0     | 8.0      | 7.0      | Φ0.6     |
| UU10.5        | 19.0     | 18.0     | 24.0     | 13.0     | 10.0     | Φ0.7     |
| UU16          | 24.0     | 21.0     | 29.0     | 13.0     | 10.0     | Φ0.7     |

### Schematic



# SMT COMMON MODE CHOKES

## Toroidal series

### Features

- 1500Vrms isolation between windings/耐压 1500Vrms
- Wide range of inductance and current available/宽范围电感和电流

### Application

- Switching mode power supply/开关电源



### Specifications

| Size  | Fig | A<br>(Max) | B<br>(Max) | C<br>(Max) | D<br>(Nom) | E<br>(Nom) |
|-------|-----|------------|------------|------------|------------|------------|
| 4L3-B | 1   | 13.50      | 13.50      | 5.50       | 8.38       | 10.41      |
| 4L4-A | 2   | 14.50      | 16.50      | 9.00       | 8.64       | 13.46      |
| 4L4-B | 2   | 15.00      | 18.50      | 10.00      | 9.40       | 15.49      |
| 4L4-C | 2   | 17.50      | 19.60      | 10.00      | 11.30      | 16.76      |
| 4L7   | 3   | 31.50      | 25.50      | 12.90      | 15.24      | 27.86      |

1. Operating temperature -40°C to 110°C, storage temperature -40°C to 125°C

### Mechanical

Fig. 1

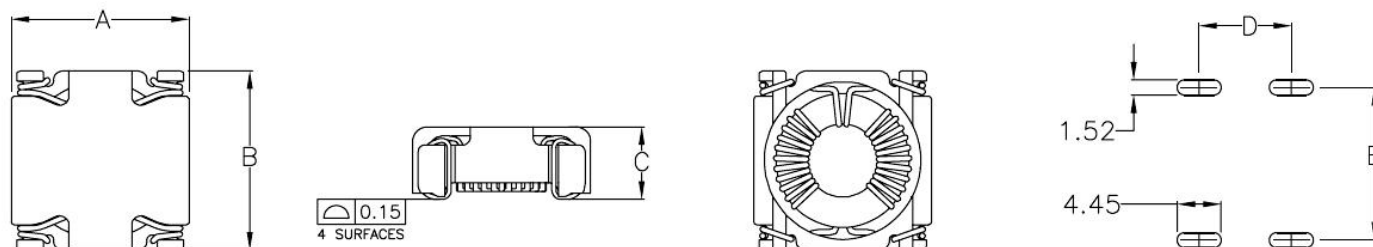
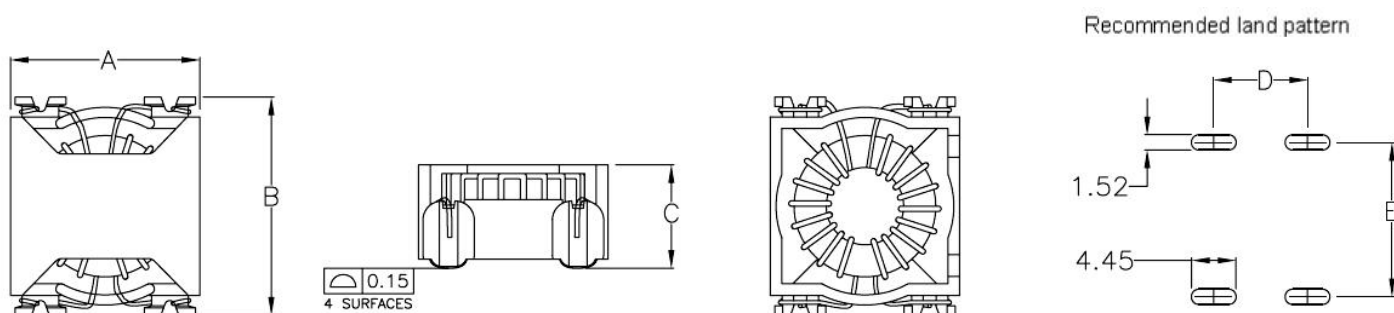


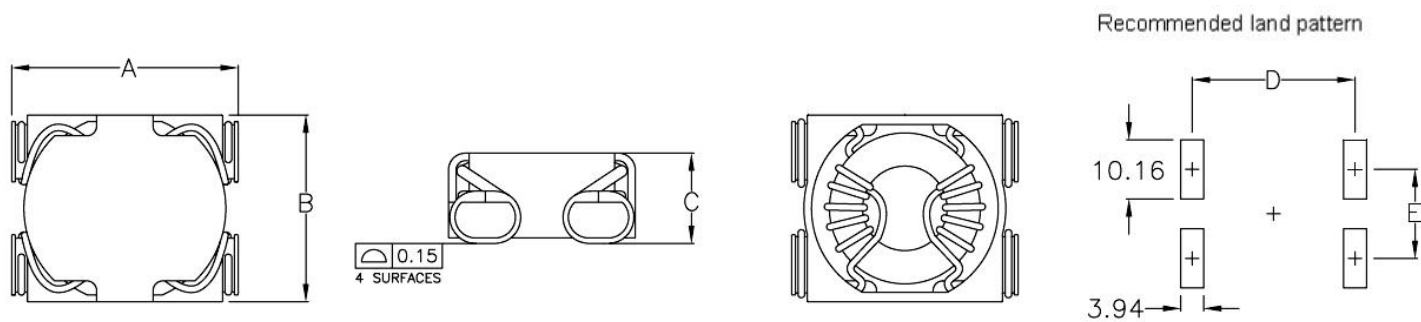
Fig. 2



# SMT COMMON MODE CHOKES

## Toroidal series

Fig. 3



# LAMINATED TRANSFORMES

## Toroidal Series

### Features

- Operating frequency 50Hz/60Hz
- Power up to 3000W
- High efficiency and low loss
- Custom designs available



### Application

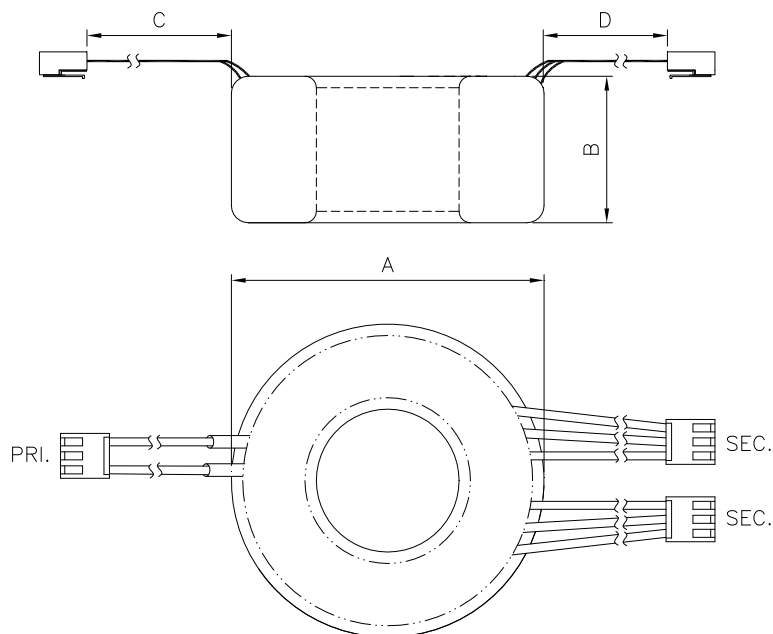
- Amplifier

### Electrical Specifications @25°C

| Ordering Code | Fig. | Input Voltage (Vac) | Frequency (Hz) | Output Voltage (Vac) |            | Output Power(W) |
|---------------|------|---------------------|----------------|----------------------|------------|-----------------|
| TC80          | 1    | 100V                | 50/60Hz        | 40.0V*2/3A           | N/A        | 240W            |
| TC100         | 2    | 220V                | 50/60Hz        | 39.9V*2/4A           | 12.0V*2/1A | 343W            |
| TC120         | 2    | 220V                | 50/60Hz        | 39.9V*2/8A           | 12.0V*2/1A | 662W            |

### Mechanical

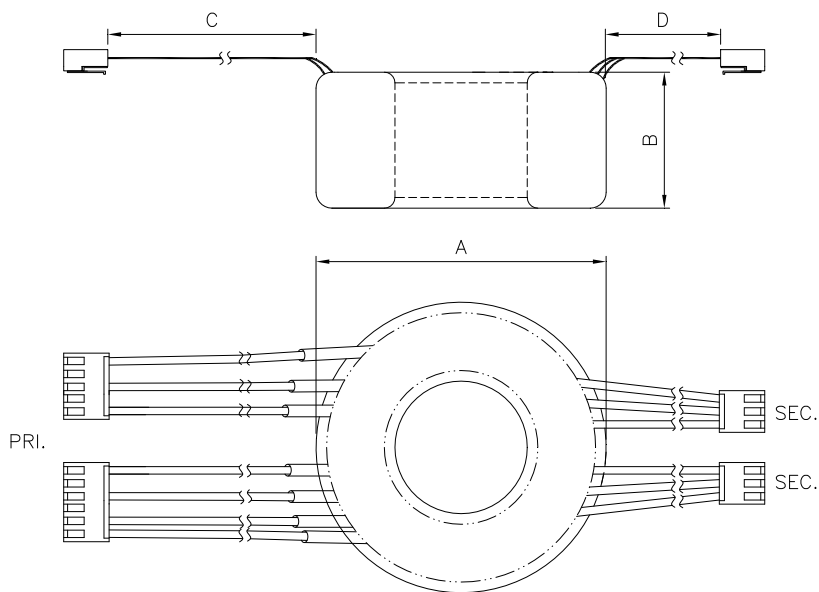
Fig. 1



# LAMINATED TRANSFORMES

## Toroidal Series

Fig. 2

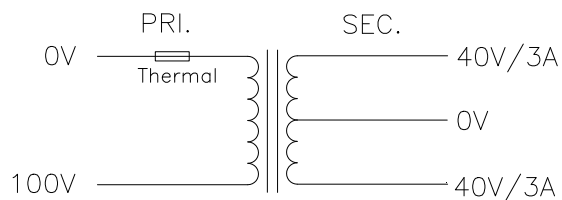


### Dimension (mm)

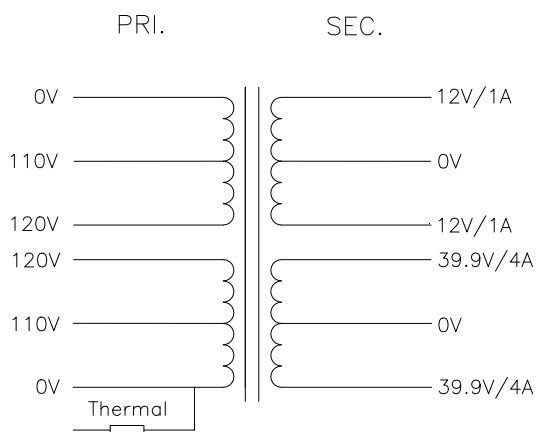
| Ordering Code | Fig. | A (Max.) | B (Max.) | C (Nom.) | D (Nom.) |
|---------------|------|----------|----------|----------|----------|
| TC80          | 1    | 118.0    | 72.0     | 120.0    | 90.0     |
| TC100         | 2    | 126.0    | 86.0     | 300.0    | 160.0    |
| TC120         | 2    | 143.0    | 86.0     | 300.0    | 160.0    |

### Schematic

#### TC80



#### TC100



# LAMINATED TRANSFORMES

## Toroidal Series

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TC120

