

LAN Transformer – SLT Series

Operating Temp. : -40℃~+105℃



FEATURES

- Standard product for 10/100M BASE-T
- Low insertion loss
- High return loss
- Excellent dielectrics Hi-Pot

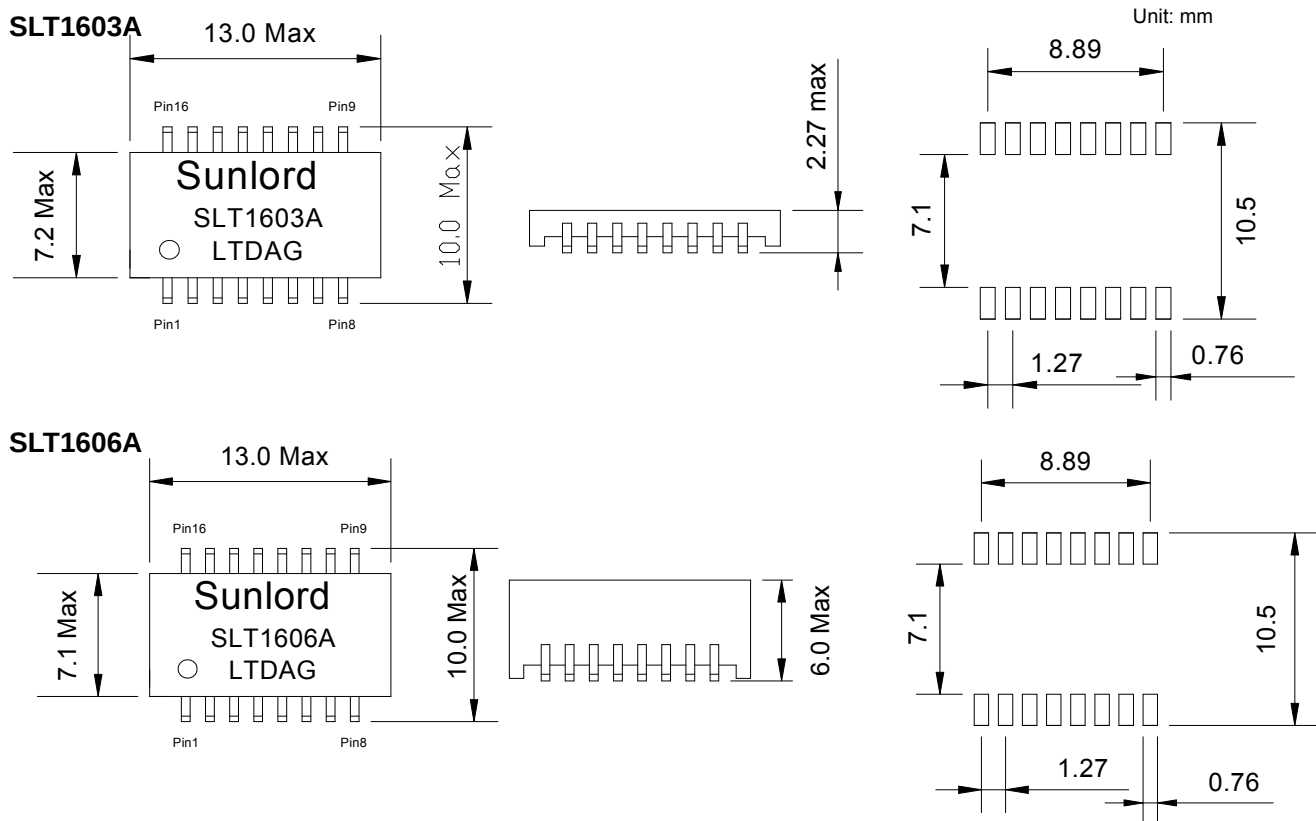
APPLICATIONS

- Using for PC, digital TV, STB
- Reception & transmission
- Protect IC from lightning stroke

PRODUCT IDENTIFICATION

①	②	③	④
①	②	③	④
Product Type		Numbers for Pins	
SLT	Lan Transformer	16	16Pins
		Height	
		03	3.0mm
		06	6.0mm
④			
Series Code			
A			

SHAPE AND DIMENSIONS



Sunlord

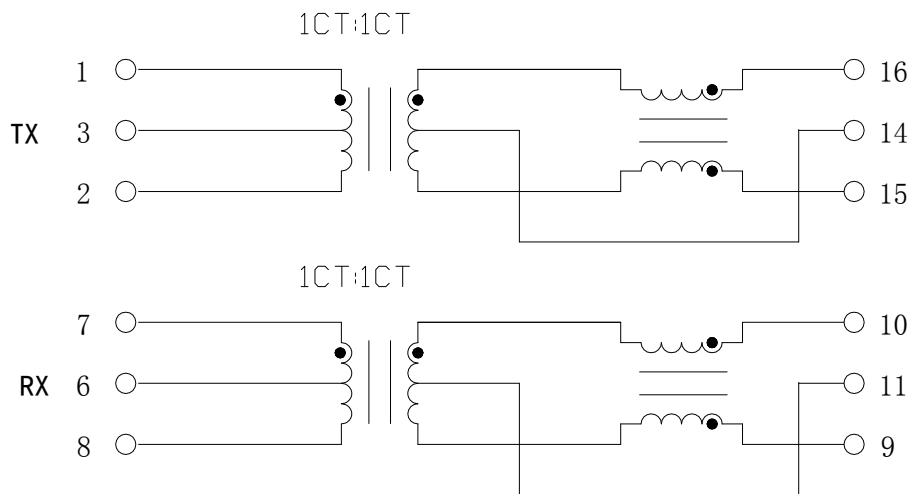
Specifications subject to change without notice. Please check our website for latest information. Revised 2012/06/21

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SPECIFICATIONS

1. Lan Transformer SLT1603A

(1) Terminal connection diagram



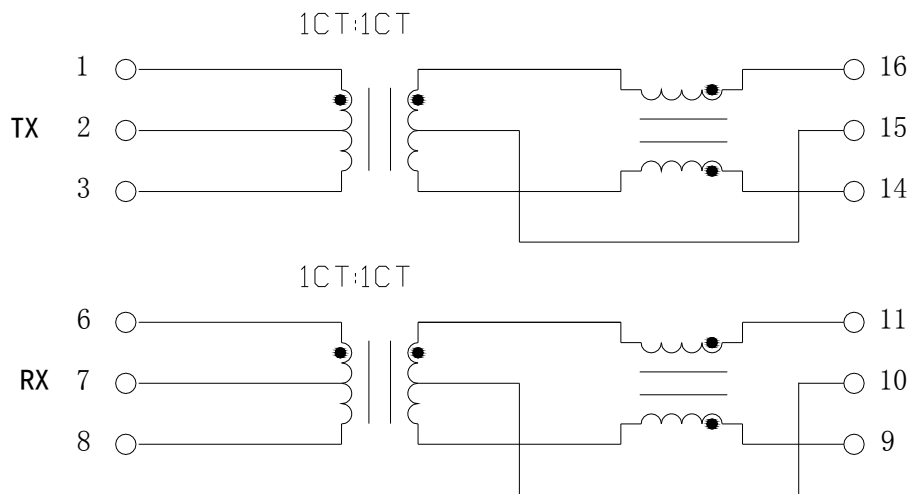
(2) Electrical Characteristics

Item	Standard	Test Conditions
Inductance	350 μ H Min.	100kHz, 0.2V, 8mA, DC
Leakage Inductance	0.5 μ H Max.	100kHz, 0.2V
Turn Ratio (1,2):(16,15)	1:1 $\pm$ 3% Within	100kHz, 0.2V
Turn Ratio (7,8):(10,9)	1:1 $\pm$ 3% Within	100kHz, 0.2V
RDC: (1,2), (7,8)	1.0 Ω Max.	at 25 $^{\circ}$ C
RDC: (16,15), (10,9)	1.4 Ω Max.	at 25 $^{\circ}$ C
C _{ww}	15pF Max.	100kHz, 0.2V
Hi-Pot	AC 1500Vrms	50Hz/60Hz
Insertion Loss	1.1dB Max.	0.1~100MHz
Return Loss	16.0dB Min.	0.3~30MHz
	14.0dB Min.	40MHz
	12.0dB Min.	50MHz
	10.0dB Min.	60~80MHz
Cross Talk	35.0dB Min.	0.1~100MHz
CMRR	30.0dB Min.	0.1~100MHz

SPECIFICATIONS

2. Lan Transformer of SLT1606A.

(1) Terminal connection diagram



(2) Electrical Characteristics

Item	Standard	Test conditions
Inductance	350 μ H Min.	100kHz, 0.1V, 8mA, DC
Leakage Inductance	0.5 μ H Max.	100kHz, 0.1V
Turn ratio (1,3):(14,16)	1:1 $\pm$ 3% Within	100kHz, 0.1V
Turn ratio (6,8):(11,9)	1:1 $\pm$ 3% Within	100kHz, 0.1V
RDC: (1,3), (6,8)	1.0 Ω Max.	at 25 $^{\circ}$ C
RDC: (14,16), (11,9)	1.0 Ω Max.	at 25 $^{\circ}$ C
C _{ww}	28pF Max	100kHz, 0.1V
Hi-Pot	AC 1500Vrms	50Hz/60Hz
Insertion Loss	1.0dB Max.	0.3~100MHz
Return Loss	16.0dB Min.	1~30MHz
	14.0dB Min.	30~60MHz
	12.0dB Min.	60~80MHz
Cross Talk	35.0dB Min.	1~100MHz
CMRR	40.0dB Min.	1~30MHz
	30.0dB Min.	30~60MHz
	25.0dB Min.	60~80MHz

Low Profile Electronic Transformer

Product Identification

I P H WEE13 ■■■■ V □□□ E
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

Note:

- ① Transformer;
- ② Pin type. P: DIP ; S: SMD;
- ③ Classification. H: for High frequency; L: for Low frequency; P: Plane Structure;
- ④ Core type. Five characters, for example, WEE13=EE13 core, "W" is placeholder. If the placeholder is "A", means the dimension value is over 100mm, then the unit is cm; EFD38=EFD38 core;
- ⑤ External Dimensions (L×H). Four numbers, the former two numbers show length, the later two numbers show height, Unit: mm or cm which lies on the item ④;
- ⑥ Configuration. H: Horizontal type; V: Vertical type;
- ⑦ Process code: 001, 002, ~999;
- ⑧ Hazardous Substance Free

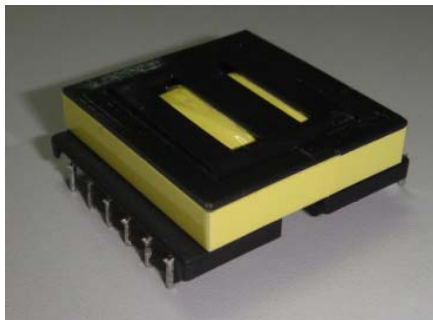
Core type EFD, EM, OI Reference Data

Feature and Application

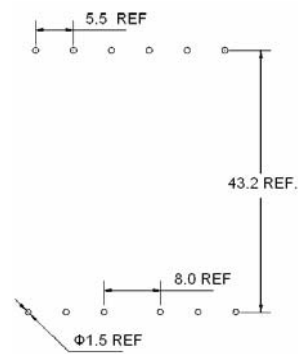
- Low-back, high power density, self-cooling, automatic production
- Can be made SMD construction (large weight not recommended)
- Widely used in LED-backlit display/TV, LED power, precision instruments, power supply modules, computer terminal output and so on.

Product Information

■ P/N: TPHEFD384513H□□□F



Core Type: EFD38



Recommended PCB Layout

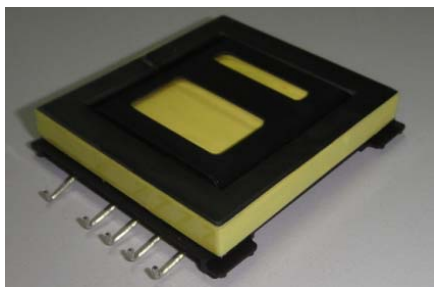
Reference dimension (L*W*H): 45 (include pins) *39*13mm Max.

Power: 100W ref.

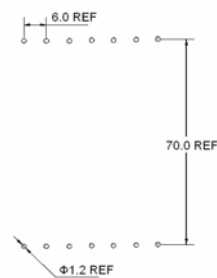
13.0mm low-back, suitable for 26'~32' LED-backlit display/TV

Core type EFD, EM, OI Reference Data

■ P/N: TPHWEM497213H□□□F



Core Type: EM49



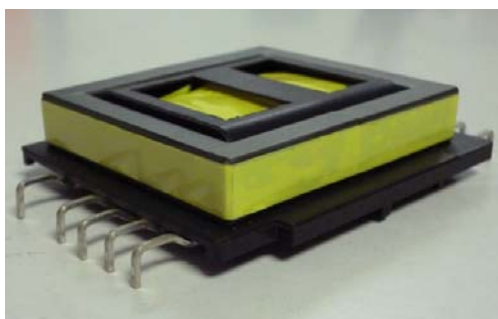
Recommended PCB Layout

Reference dimension (L*W*H): 72 (include pins) *54*13mm Max.

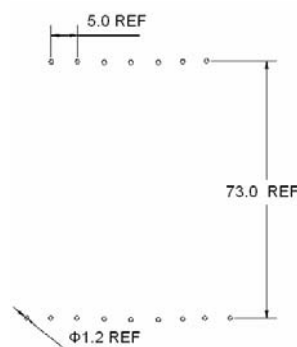
Power: 120W ref.

13.0mm low-back, suitable for 32'~42' LED-backlit display/TV

■ P/N: TPHEFD507514H□□□F



Core Type: EFD50



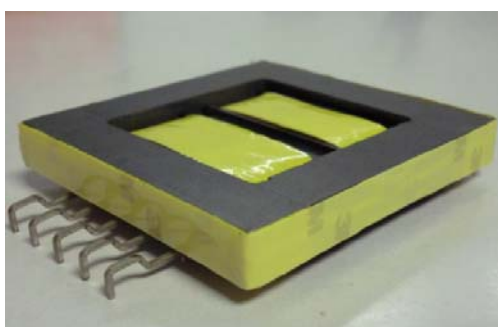
Recommended PCB Layout

Reference dimension (L*W*H): 75 (include pins) *52*14mm Max.

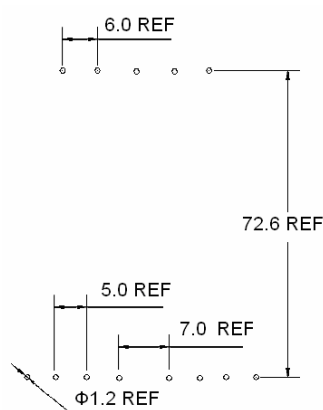
Power: 150W ref.

13.0mm low-back, drop in PCB type, suitable for 42'~47' LED-backlit display/TV

■ P/N: TPHWOI507508H□□□F (In Development and verification)



Core Type: OI50



Recommended PCB Layout

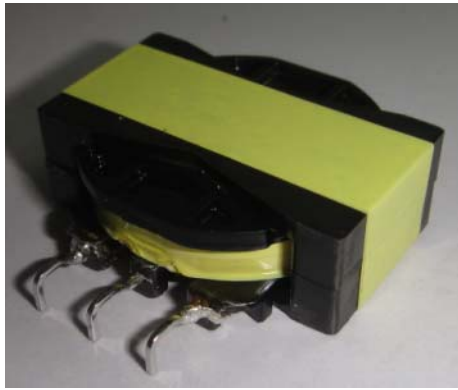
Reference dimension (L*W*H): 75 (include pins) *52*8.0mm Max.

Power: 100W ref.

10.0mm low-back, drop in PCB type to reduce the height to 8.0mm Max. over board, suitable for 26'~32' LED-backlit display/TV

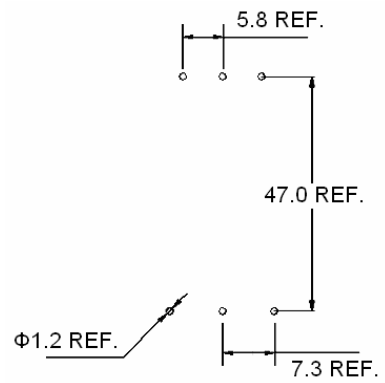
PFC Choke

■ P/N: TPHWPQ384913H□□F



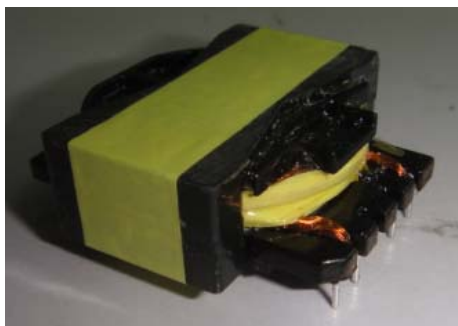
Core Type: PQ38

Reference dimension (L*W*H): 49 (Include PINS) *39*13mm Max.



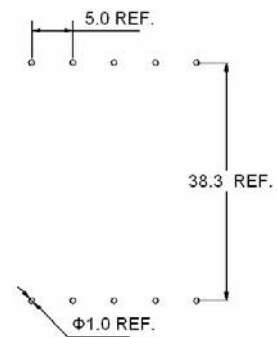
Recommended PCB Layout

■ P/N: TPHWPQ384213H□□F



Core Type: PQ38

Reference dimension (L*W*H): 42*39*13mm Max.



Recommended PCB Layout

Remark

- The picture is for reference and the real product may be different.
- Other types such as PQ, RM, POT are also available.
- We can customize products according to your requirements. Please contact your local sales.

Electronic Transformer

Product Identification

I P H WEE13 ■■■■ V □□□ E
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

Note:

- ① Transformer;
- ② Pin type. P: DIP ; S: SMD;
- ③ Classification. H: for High frequency; L: for Low frequency; P: Plane Structure;
- ④ Core type. Five characters, for example, WEE13=EE13 core, "W" is placeholder. If the placeholder is "A", means the dimension value is over 100mm, then the unit is cm; EFD38=EFD38 core;
- ⑤ External Dimensions (L×H). Four numbers, the former two numbers show length, the later two numbers show height, Unit: mm or cm which lies on the item ④;
- ⑥ Configuration. H: Horizontal type; V: Vertical type;
- ⑦ Process code: 001, 002, ~999;
- ⑧ Hazardous Substance Free

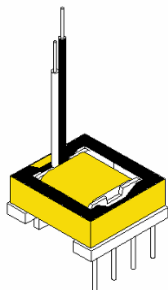
Core type EFD, EPC Reference Data

Feature and Application

- High power density, self-cooling, automatic production
- Can be made SMD construction (large weight not recommended)
- Widely used in LED-backlit display/TV, LED power, precision instruments, power supply modules, computer terminal output and so on.

Product Information

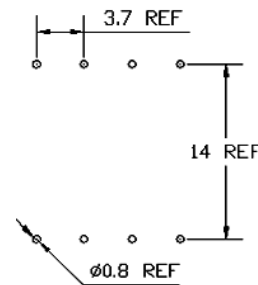
■ P/N: TPHEFD151711H□□□F



Core Type: EFD15

Reference dimension (L*W*H): 17*16*11mm Max.

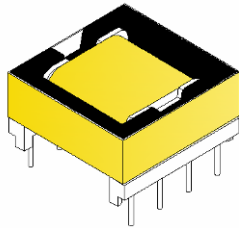
Power: 8W Max.



Recommended PCB Layout

Core type EFD, EPC Reference Data

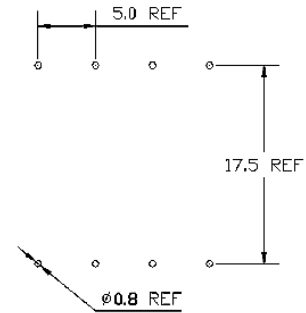
■ P/N: TPHEFD202112H□□□F



Core Type EFD20

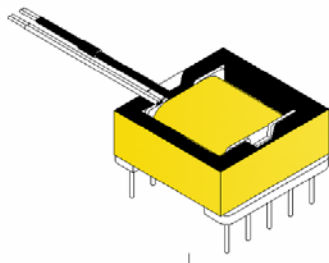
Reference dimension (L*W*H): 21*21*12mm Max.

Power: 22W Max.



Recommended PCB Layout

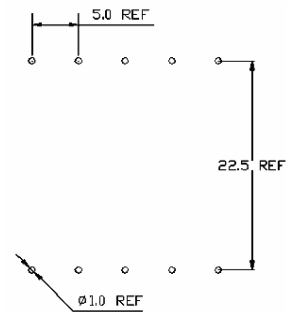
■ P/N: TPHEFD252813H□□□F



Core Type: EFD25

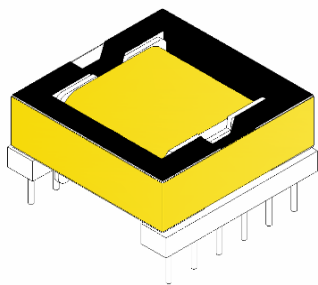
Reference dimension (L*W*H): 28*26*13mm Max.

Power: 50W Max.



Recommended PCB Layout

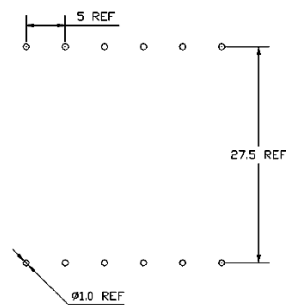
■ P/N: TPHEFD303217H□□□F



Core Type: EFD30

Reference dimension (L*W*H): 32*31*17mm Max.

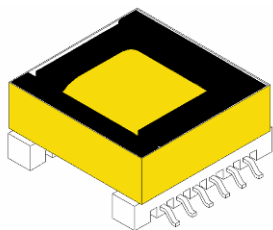
Power: 68W Max.



Recommended PCB Layout

Core type EFD, EPC Reference Data

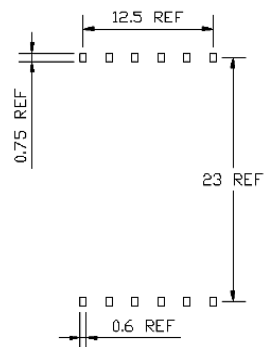
■ P/N: TSHEPC192411H□□□F



Core Type: EPC19

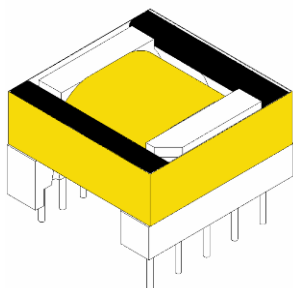
Reference dimension (L*W*H): 24*21*11mm Max.

Power: 15W Max.



Recommended PCB Layout

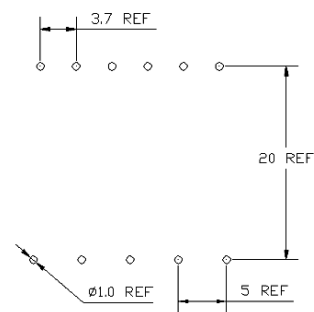
■ P/N: TPHEPC252718H□□□F



Core Type: EPC25

Reference dimension (L*W*H): 27*26*18mm Max.

Power: 40W Max.



Recommended PCB Layout

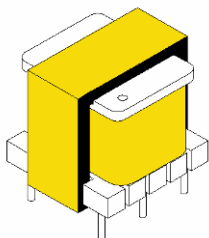
Core Type EE, EF, EI Reference Data

Feature and Application

- Common types, open shape for easy selection and good heat dissipation
- Widely used in the power of program-controlled switches, high-power UPS inverter power supplies, computer power, energy-saving lamps, and so on.

Product Information

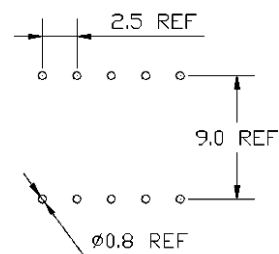
■ P/N:TPHWEE131414V□□□F



Core Type: EE13

Reference dimension (L*W*H): 14*13*14mm Max.

Power: 8W Max.



Recommended PCB Layout

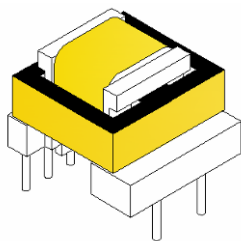
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Core Type EE, EF, EI Reference Data

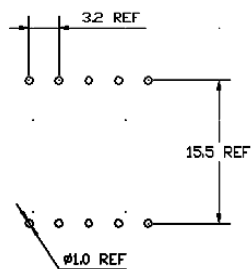
■ P/N: TPHWEE161814H□□□F



Core Type: EE16

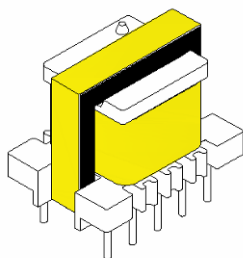
Reference dimension (L*W*H): 18*16*14mm Max.

Power: 10W Max.



Recommended PCB Layout

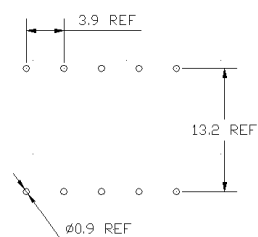
■ P/N: TPHWEE192118V□□□F



Core Type: EE19

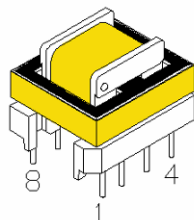
Reference dimension (L*W*H): 21*16*18mm Max.

Power: 15W Max.



Recommended PCB Layout

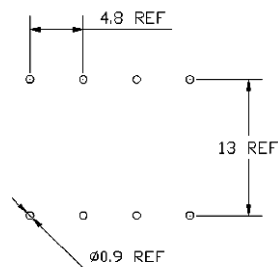
■ P/N: TPHWEE192117H□□□F



Core Type: EE19

Reference dimension (L*W*H): 21*18*17mm Max.

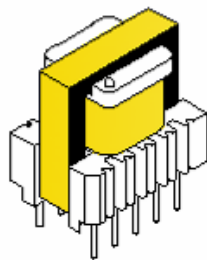
Power: 15W Max.



Recommended PCB Layout

Core Type EE, EF, EI Reference Data

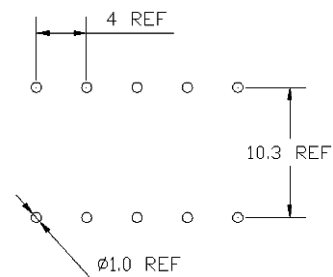
■ P/N: TPHWEE222319V□□□F



Core Type: EE22

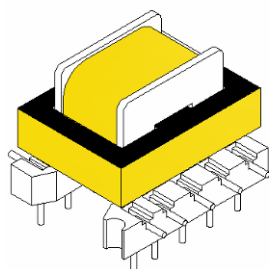
Reference dimension (L*W*H): 23*16*19mm Max.

Power: 20W Max.



Recommended PCB Layout

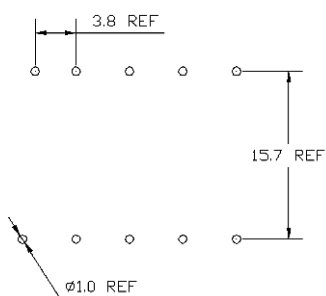
■ P/N: TPHWEE252721H□□□F



Core Type: EE25

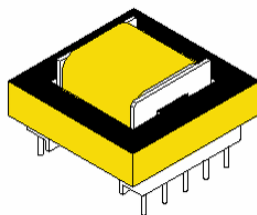
Reference dimension (L*W*H): 27*27*21mm Max.

Power: 30W Max.



Recommended PCB Layout

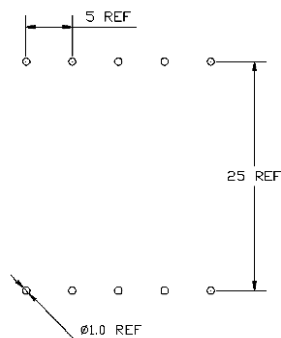
■ P/N: TPHWEE303119H□□□F



Core Type: EE30

Reference dimension (L*W*H): 31*31*19mm Max.

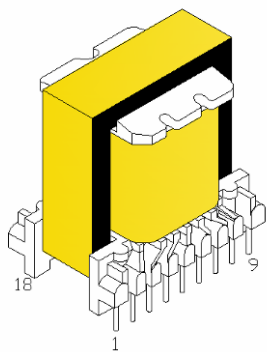
Power: 60W Max.



Recommended PCB Layout

Core Type EE, EF, EI Reference Data

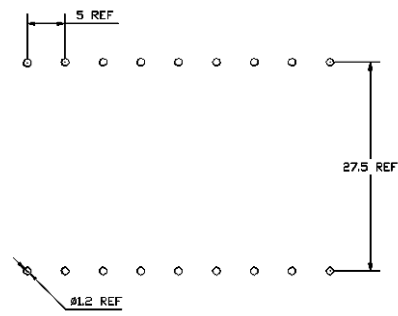
■ P/N: TPHWEE424649V□□□F



Core Type: EE42

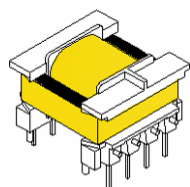
Reference dimension (L*W*H): 46*32*49mm Max.

Power: 250W Max.



Recommended PCB Layout

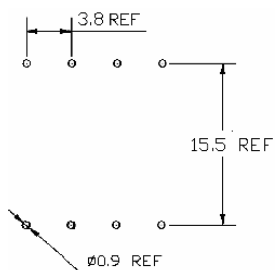
■ P/N: TPHWEF162014H□□□F



Core Type: EF16

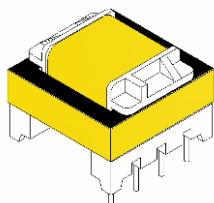
Reference dimension (L*W*H): 20*18*14mm Max.

Power: 12W Max.



Recommended PCB Layout

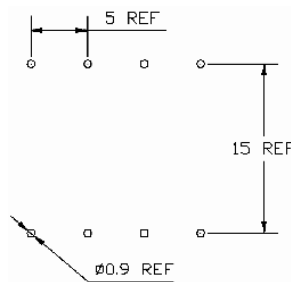
■ P/N: TPHWEF202116H□□□F



Core Type: EF20

Reference dimension (L*W*H): 21*21*16mm Max.

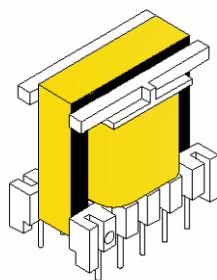
Power: 22W Max.



Recommended PCB Layout

Core Type EE, EF, EI Reference Data

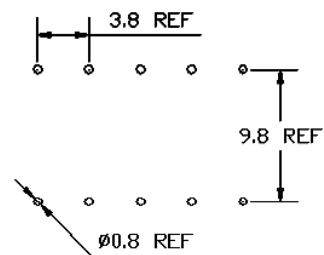
■ P/N: TPHWEF202323V□□□F



Core Type: EF20

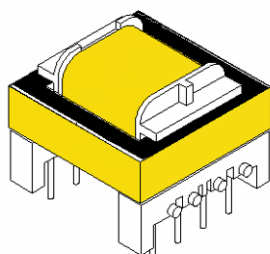
Reference dimension (L*W*H): 23*14*23mm Max.

Power: 22W Max.



Recommended PCB Layout

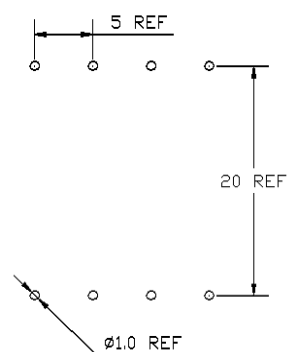
■ P/N: TPHWEF252822H□□□F



Core Type: EF25

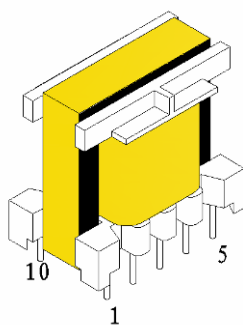
Reference dimension (L*W*H): 28*26*22mm Max.

Power: 45W Max.



Recommended PCB Layout

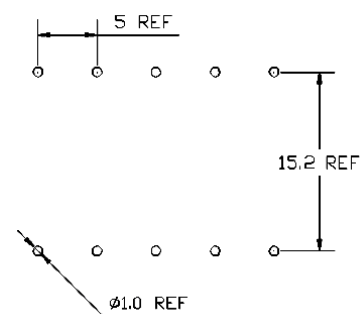
■ P/N: TPHWEF252927V□□□F



Core Type: EF25

Reference dimension (L*W*H): 29*18*27mm Max.

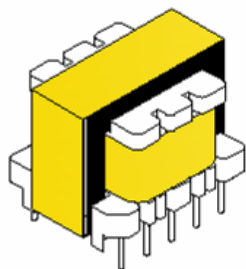
Power: 45W Max.



Recommended PCB Layout

Core Type EE, EF, EI Reference Data

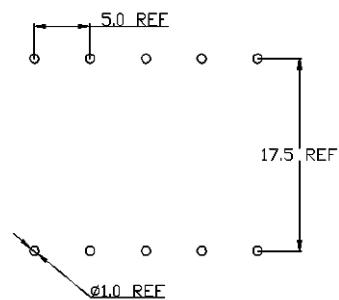
■ P/N: TPHWEI282923V□□□F



Core Type: EI28

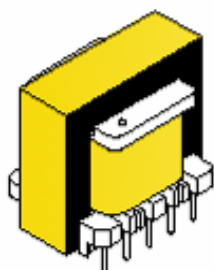
Reference dimension (L*W*H): 29*23*23mm Max.

Power: 60W Max.



Recommended PCB Layout

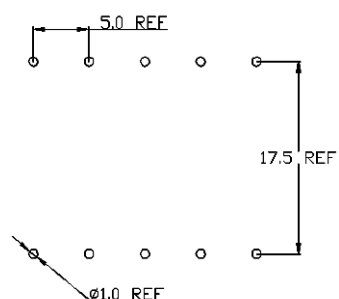
■ P/N: TPHWEI303128V□□□F



Core Type: EI30

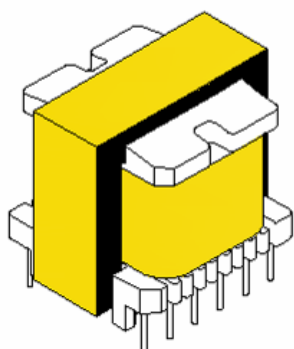
Reference dimension (L*W*H): 31*23*28mm Max.

Power: 100W Max.



Recommended PCB Layout

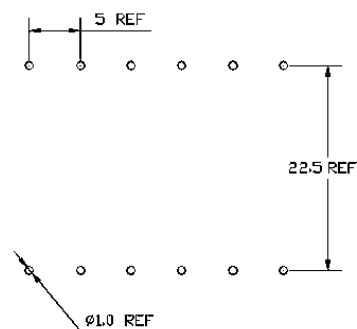
■ P/N: TPHWEI333434V□□□F



Core Type: EI33

Reference dimension (L*W*H): 34*26*34mm Max.

Power: 125W Max.



Recommended PCB Layout

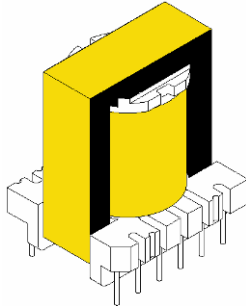
Core Type ERL, ER, Reference Data

Feature

- Common types, round bobbin suitable for winding
- Leakage inductance is easy to be controlled
- Open structure, self-cooling.
- Widely used in SMPS, Ballast, home appliances, communications, lighting, medical equipment, OA equipments, industry instruments, and so on.

Product Information

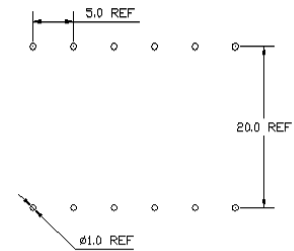
■ P/N: TPHERL283138V□□□F



Core Type: ERL28

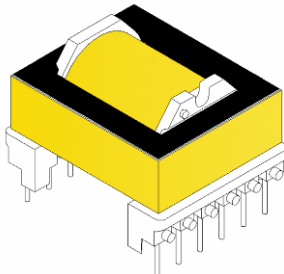
Reference dimension (L*W*H): 31*28*38mm Max.

Power: 100W Max.



Recommended PCB Layout

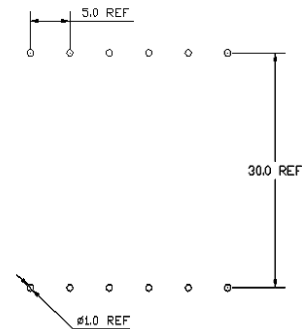
■ P/N: TPHERL283825H□□□F



Core Type: ERL28

Reference dimension (L*W*H): 38*31*25mm Max.

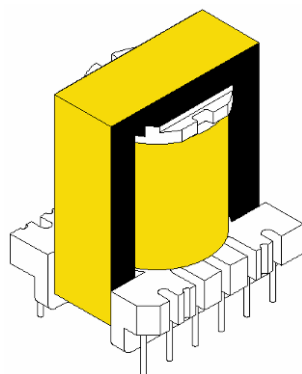
Power: 100W Max.



Recommended PCB Layout

Core Type ERL, ER, Reference Data

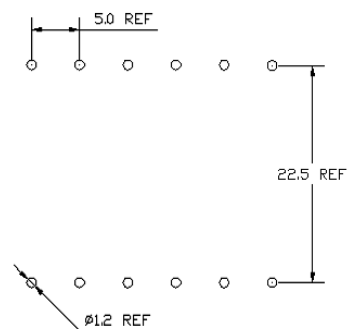
■ P/N: TIPHERL353744V□□□F



Core Type: ERL35

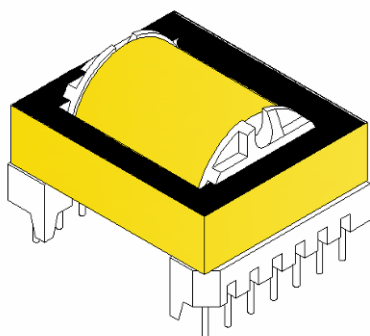
Reference dimension (L*W*H): 37*30*44mm Max.

Power: 160W Max.



Recommended PCB Layout

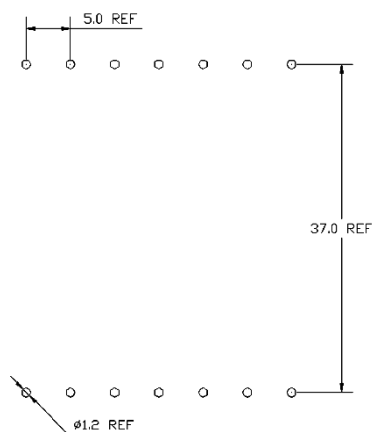
■ P/N: TIPHERL354430H□□□F



Core Type: ERL35

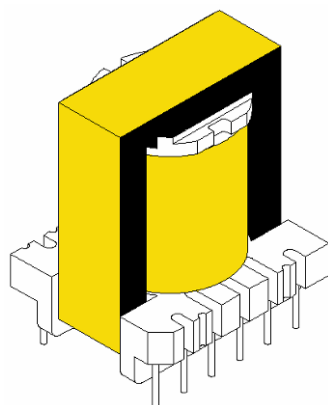
Reference dimension (L*W*H): 44*37*30mm Max.

Power: 160W Max.



Recommended PCB Layout

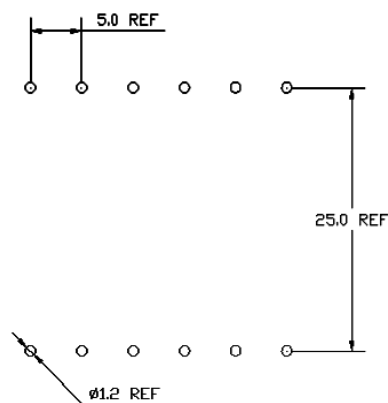
■ P/N: TIPHERL404249V□□□F



Core Type: ERL40

Reference dimension (L*W*H): 42*31*49mm Max.

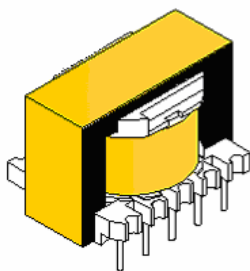
Power: 240W Max.



Recommended PCB Layout

Core Type ERL, ER, Reference Data

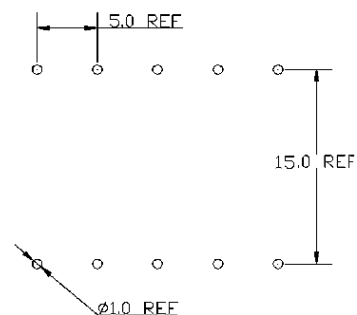
■ P/N: TPHWER252724V□□□F



Core Type: ER25

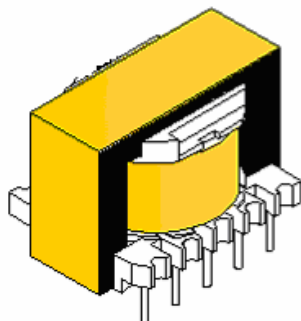
Reference dimension (L*W*H): 27*20*24mm Max.

Power: 25W Max.



Recommended PCB Layout

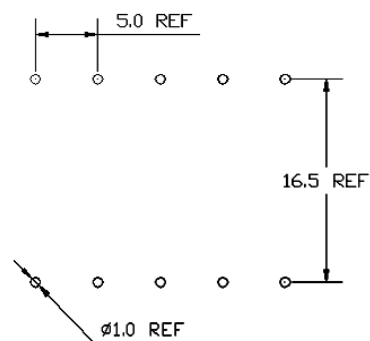
■ P/N: TPHWER282821V□□□F



Core Type: ER28

Reference dimension (L*W*H): 28*25*21mm Max.

Power: 85W Max.



Recommended PCB Layout

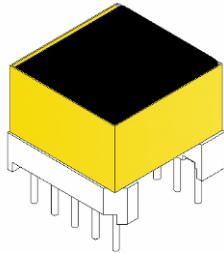
Core Type EP Reference Data

Feature

- Excellent magnetic shielding, low distributed capacitance,
- Low loss, low leakage inductance, uniform magnetic field
- Suitable for SMD construction
- As XDSL transformers, isolation transformers, or matching transformers, widely used in program-controlled switch terminal and precision electronic instrument and so on.

Product Information

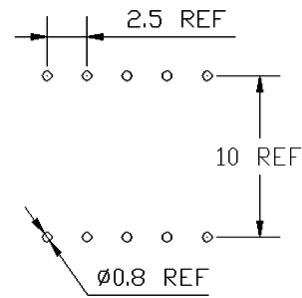
■ P/N: TPHWEP131412H□□□F



Core Type: EP13

Reference dimension (L*W*H): 14*14*12mm Max.

Power: 10W Max.



Recommended PCB Layout

Remark

- The picture is for reference and the real product may be different.
- Other types such as PQ, RM, POT are also available.
- We can customize products according to your requirements. Please contact your local sales.