

SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

HS-TP25F SERIES

1. FEATURES:

- (1) Power Rating Up to 140 Watts.
- (2) High Efficiency of Over 98%.
- (3) High Power Density of 600 Watts Per Cubic Inch.
- (4) Footprint 23.5mm X 20.1mm.
- (5) Lower Profile of 9.12mm.
- (6) High Isolation (operational) 1500 Vdc.
- (7) High Frequency 200 kHz - 700 kHz.
- (8) Operating Temperature -40°C to + 125°C.

2. APPLICATIONS:

The HS-TP25F series of planar transformers are optimised for power supplies of high performance DC/DC converters. Due to an optimised core, winding geometry and interleaving technology, they are able to offer a high efficiencies up to over 98 percent, high power density of 600 watts per cubic inch, but lower profile of 9.12mm. The series consist of 15 part numbers. Adding a primary auxiliary winding or a small gap to transformers, they will be have more expanding of configurations. They series are intended for use of DC-DC converters supply with forward, full-bridge, half-bridge and push - pull power supplies. Topologies in application with input voltages between 18 and 75 volts, and output voltages from 52 volts down to 1.0 volts.

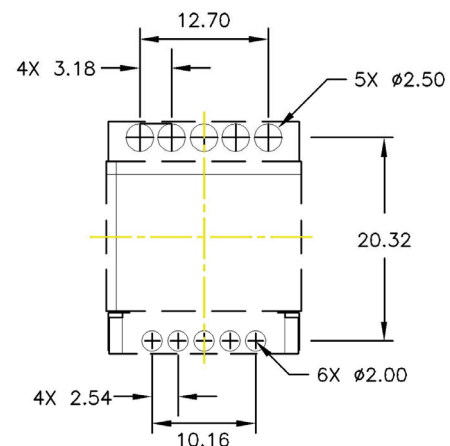
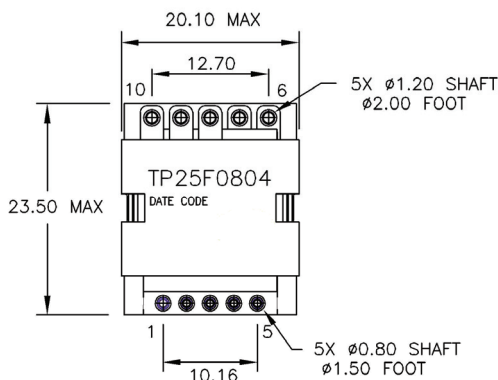
3. PART NUMBER SYSTEM:

HS-TP - 25F - 0802

(1) (2) (3)

- (1) Series name.
- (2) 25F is size.
- (3) 0802 is sequence number.

4. PHYSICAL CHARACTERISTICS:



SUGGESTED PAD LAY-OUT

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5. ELECTRICAL CHARACTERISTICS:

ELECTRICAL SPECIFICATIONS											
Part Number	Primary ¹ Inductance (uH min.)	Leakage ² Inductance (uH max.)	DC Resistance (m Ω Max)			Secondary	Turns Ratio		primary Second Hi Pot	Figure	M. Height
			Primary				Primary (A/B)	Secondary			
			A	B	AUX						
HSTP25F0802	161.0	0.43	18.0	18.0	N/A	0.5 & 0.5	4T/4T	1T & 1T	1500 (VDC)	A	
HSTP25F0902	204.0	0.43	18.0	20.0	N/A		4T/5T				
HSTP25F1002	252.0	0.45	20.0	20.0	N/A		5T/5T				
HSTP25F1102	304.0	0.55	20.0	26.0	N/A		5T/6T				
HSTP25F1202	362.0	0.60	26.0	26.0	N/A		6T/6T				
HSTP25F0803	161.0	0.43	18.0	18.0	N/A	1.0 & 1.0	4T/4T	2T & 1T	1500 (VDC)	B	
HSTP25F0903	204.0	0.43	18.0	20.0	N/A		4T/5T				
HSTP25F1003	252.0	0.45	20.0	20.0	N/A		5T/5T				
HSTP25F1103	304.0	0.55	20.0	26.0	N/A		5T/6T				
HSTP25F1203	362.0	0.60	26.0	26.0	N/A		6T/6T				
HSTP25F0804	161.0	0.43	18.0	18.0	N/A	4.00	4T/4T	4T (1T:1T:1T:1T)	1500 (VDC)	C	
HSTP25F0904	204.0	0.43	18.0	20.0	N/A		4T/5T				
HSTP25F1004	252.0	0.45	20.0	20.0	N/A		5T/5T				
HSTP25F1104	304.0	0.55	20.0	26.0	N/A		5T/6T				
HSTP25F1204	362.0	0.60	26.0	26.0	N/A		6T/6T				

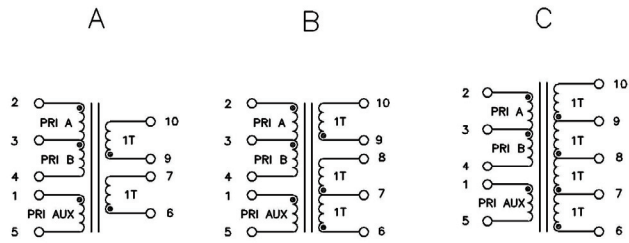
NOTES:

1. The inductance is measured on HP4284 between pins 2 - 4 at 100 kHz, 100 mVrms, 0 Adc.
2. The leakage inductance is measured between pins 2 - 4 with all other winding shorted.
3. All specifications typical at T_A=25° C.

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5. SCHEMATICS:



SCHEMATICS