

# SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

## HS-TP25D SERIES

### 1. FEATURES:

- (1) Power Rating Up to 150 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-TP25D 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, off-the-shelf catalog parts can be arranged to 130 different winding configurations. 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.

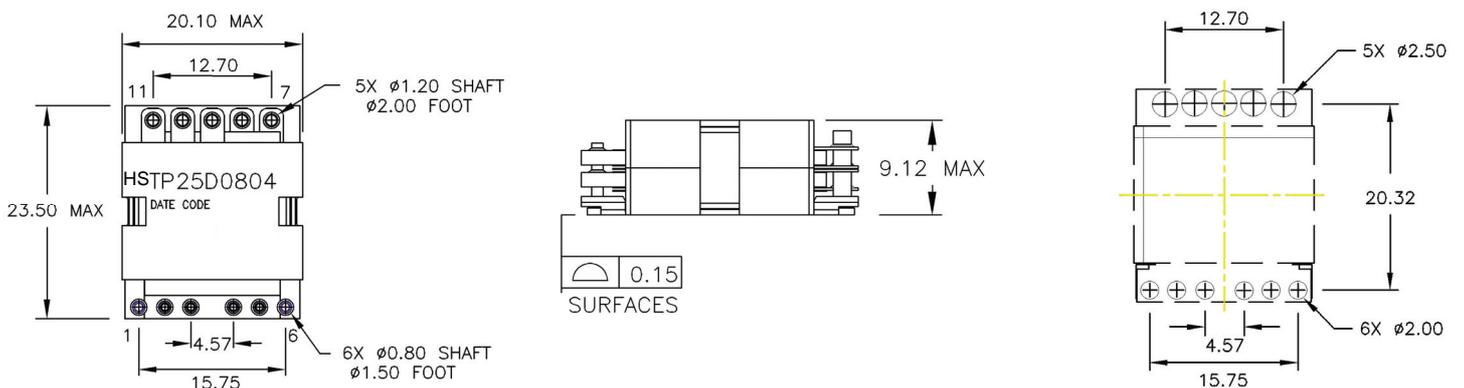
### 3. PART NUMBER SYSTEM:

HS-TP - 25D - 0802

(1)        (2)        (3)

- (1) Series name.
- (2) 25D is size.
- (3) 0601 is sequence number.

### 4. PHYSICAL CHARACTERISTICS:



SUGGESTED PAD LAY-OUT

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### 5. ELECTRICAL CHARACTERISTICS:

ELECTRICAL SPECIFICATIONS											
Part Number	Primary <sup>1</sup> Inductance (uH min. )	Leakage <sup>2</sup> Inductance ( uH max. )	DC Resistance (mΩ Max)				Turns Ratio		primary Second Hi Pot	Figure	M. Height
			Primary			Secondary	Primary	Secondary			
			A	B	AUX		(A/B)				
HSTP25D0802	161.0	0.43	18.0	18.0	N/A	0.85&0.85	4T/4T	1T & 1T	1500 Vdc	A	9.12 mm Max
HSTP25D0902	204.0	0.43	18.0	20.0	N/A		4T/5T				
HSTP25D1002	252.0	0.48	20.0	20.0	N/A		5T/5T				
HSTP25D1102	304.0	0.55	20.0	25.0	N/A		5T/6T				
HSTP25D1202	362.0	0.60	25.0	25.0	N/A		6T/6T				
HSTP25D0803	161.0	0.43	18.0	18.0	N/A	1.70 & 1.70	4T/4T	2T & 1T		B	
HSTP25D0903	204.0	0.43	18.0	20.0	N/A		4T/5T				
HSTP25D1003	252.0	0.48	20.0	20.0	N/A		5T/5T				
HSTP25D1103	304.0	0.55	20.0	25.0	N/A		5T/6T				
HSTP25D1203	362.0	0.60	25.0	25.0	N/A		6T/6T				
HSTP25D0804	161.0	0.43	18.0	18.0	N/A	7.00	4T/4T	4T (1T:1T:1T:1T)	C		
HSTP25D0904	204.0	0.43	18.0	20.0	N/A		4T/5T				
HSTP25D1004	252.0	0.48	20.0	20.0	N/A		5T/5T				
HSTP25D1104	304.0	0.55	20.0	25.0	N/A		5T/6T				
HSTP25D1204	362.0	0.60	25.0	25.0	N/A		6T/6T				

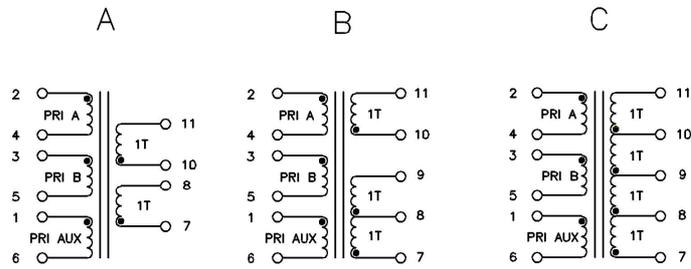
#### NOTES:

1. The inductance is measured with both primary windings connected in series Pin (2--5) with Pin (3--4) shorted.
2. The leakage inductance is measured in winding Pin (2 -4) with all other winding shorted.
3. All specifications typical at T<sub>A</sub>=25° C.

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### 5. SCHEMATICS:



SCHEMATICS