SHENZHEN HIGHSTARTECH ELECTRONICS CO., LTD

HS-TI25 SERIES

1. FEATURES:

(1) High Thermal Efficiency & Energy Storage.
(2) High Current Rating Up to 73 Amps.
(3) Lower Profile of 7.4mm Max.
(4) Wider Flexibility of Inductances.
(5) Footprint 23.5mm X 19.5mm.
(6) Operating Temperature -40℃ to + 130℃.

2. APPLICATIONS:

The HS-TI25 series of planar transformers are optimised for DC/DC power supplies of high current. Due to a lead-free constructions, they are able to offer high thermal efficiency and high current handing with the lowest DCR ratings. The main windings inductor serves as an output choke, while the auxiliary windings controls input current to the PWM (HS-TI25S1604). Application also include power systems for telecommunications, industrial control systems, automotive and heavy equipment vehicle systems where desired to high density and high energy efficiency.

3. PART NUMBER SYSTEM:

HS-TI - 25D - 221

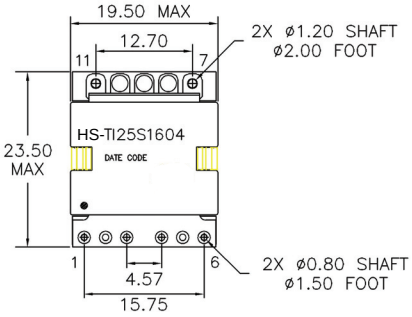
(1) (2) (3)

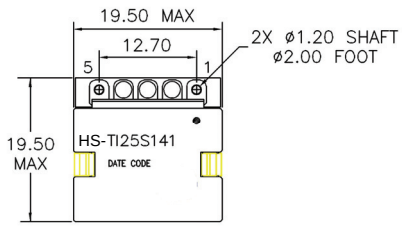
(1) Series name.

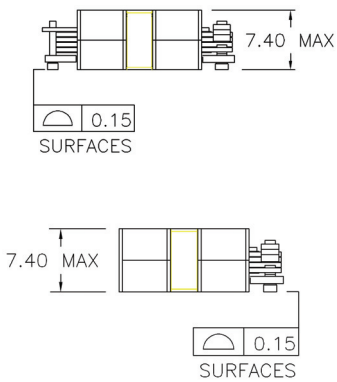
(2) 25D is size.

(3) 221 is sequence number.

4. PHYSICAL CHARACTERISTICS:







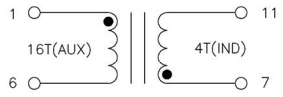
5. ELECTRICAL CHARACTERISTICS:

ELECTRICAL SPECIFICATIONS											
Part Number	Inductance[1] @ 0 Adc (uH±10%)	Inductance[1] @ Irated (uH±15%)	Irated[2] A dc	DCR (mΩ Max)		Turns Ratio		Main Aux. Hi-Pot	Isaturation[3] (Amps)		Iheating[4] (Amps)
				Main	Aux	Main	Aux.		@25° C	@100° C	
HS-TI25S1604	2.10	2.00	30.0	2.0	1500	4	16	1500	45	40	37.0
2//2 Turns											
HS-TI25D221	0.46	0.45	73.0	0.40	N/A	2	N/A	N/A	95	80	73
HS-TI25D222	0.67	0.63	55.0	0.40	N/A	2	N/A	N/A	63	53	73
HS-TI25D223	0.90	0.85	39.0	0.40	N/A	2	N/A	N/A	46	37	73
HS-TI25D224	1.12	1.05	30.0	0.40	N/A	2	N/A	N/A	35	30	73
HS-TI25D225	1.35	1.25	25.0	0.40	N/A	2	N/A	N/A	29	26	73
HS-TI25D226	1.56	1.45	21.0	0.40	N/A	2	N/A	N/A	24	22	73
2 Turns											
HS-TI25S121	0.46	0.45	53.0	0.80	N/A	2	N/A	N/A	95	80	52
HS-TI25S122	0.67	0.63	52.0	0.80	N/A	2	N/A	N/A	63	53	52
HS-TI25S123	0.90	0.85	39.0	0.80	N/A	2	N/A	N/A	46	37	52
HS-TI25S124	1.12	1.05	30.0	0.80	N/A	2	N/A	N/A	35	30	52
HS-TI25S125	1.35	1.25	26.0	0.80	N/A	2	N/A	N/A	29	26	52
HS-TI25S126	1.56	1.45	22.0	0.80	N/A	2	N/A	N/A	24	22	52
3 Turns											
HS-TI25S131	1.00	0.95	42.0	1.20	N/A	3	N/A	N/A	68	54	42
HS-TI25S132	1.50	1.45	36.0	1.20	N/A	3	N/A	N/A	43	35	42
HS-TI25S133	2.00	1.95	25.0	1.20	N/A	3	N/A	N/A	29	25	42
HS-TI25S134	2.50	2.45	20.0	1.20	N/A	3	N/A	N/A	23	21	42
HS-TI25S135	3.00	2.85	15.0	1.20	N/A	3	N/A	N/A	18	16	42
HS-TI25S136	3.50	3.45	12.0	1.20	N/A	3	N/A	N/A	15	13	42
4 Turns											
HS-TI25S141	1.78	1.65	37.0	1.60	N/A	4	N/A	N/A	55	43	37
HS-TI25S142	2.66	2.45	30.0	1.60	N/A	4	N/A	N/A	35	27	37
HS-TI25S143	3.55	3.35	17.0	1.60	N/A	4	N/A	N/A	20	18	37
HS-TI25S144	4.45	4.00	14.0	1.60	N/A	4	N/A	N/A	16	15	37
HS-TI25S145	5.33	4.85	11.0	1.60	N/A	4	N/A	N/A	13	12	37
HS-TI25S146	6.21	5.80	9.0	1.60	N/A	4	N/A	N/A	11	10	37

NOTES:

1. Inductance of HS-TI25S1604 measured on Agilient/HP4284 between pins 7 & 11 at 100 kHz, 0.1 Vrms.
2. The rated is either 85% of the saturation or the heating depending which is lower.
3. The saturation is the current which causes the inductance to drop by 15% of its nominal value.
4. The heating is the current which causes the temperature of the part to increase by approximately 45° C.

5. SCHEMATICS:



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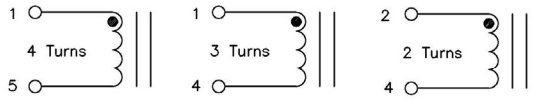

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