TSD TYPE

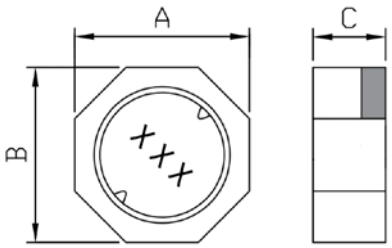
●FEATURE

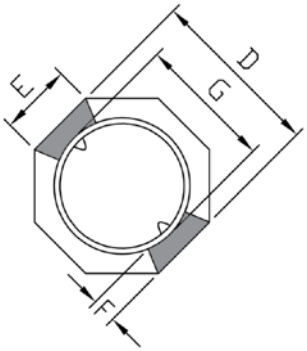
1. Various high power inductors are superior to be high saturation for surface mounting

●Applications

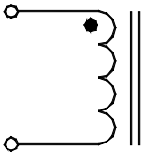
1. Digital Camera, Notebook and others

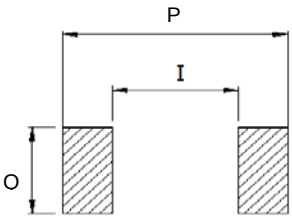
●Shape and Dimension





●Schematics and Land Patterns(mm)





●Specification

Dimension in m/m

TYPE	A	B	C	D	E	F	G	I	P	Q
TSD0302	3.85±0.30	3.85±0.30	1.80 Max	3.90±0.20	1.60	0.50	3.20	3.00	4.55	1.90
TSD0502	5.10±0.20	5.10±0.20	2.00 Max	5.40±0.40	1.60	0.50	4.20	3.90	5.70	1.90
TSD0503	5.10±0.20	5.10±0.20	3.00 Max	5.40±0.40	1.60	0.50	4.20	3.90	5.70	1.90
TSD0602	5.90±0.20	5.90±0.20	2.00 Max	6.40±0.30	2.40	0.80	4.70	4.40	6.50	2.70
TSD06025	5.90±0.20	5.90±0.20	2.50 Max	6.40±0.30	2.40	0.80	4.70	4.40	6.50	2.70
TSD0603	5.90±0.20	5.90±0.20	3.00 Max	6.40±0.30	2.40	0.80	4.70	4.40	6.50	2.70

Note1. Measurement frequency of Inductance value : 0.47uH-8.2uH/100KHz ; 10uH-2200uH/1KHz

Note2. Measurement ambient temperature of L, DCR and IDC : at 25℃

Note3. The rated current indicates the current when the inductance decreases to 70% over of it's nominal value or D.C. current when the temperature rising Δt=30℃ lower, whichever is lower

Note4. Inductance tolerance: N: ±30% ; M: ±20%

Note5. Ordering Code: TYPE NAME: TSD0302

Main Inductance: 100 (10uH)

Tolerance : M (±20%)

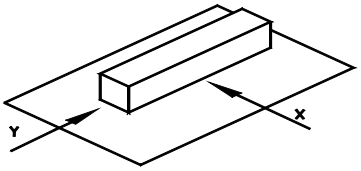
Note6. Packaging: Taping ; Quantity: TSD0302: 3500 Pieces/reel ; TSD0502: 3500 Pieces/reel ; TSD0602: 2500 Pieces/reel ; TSD06025: 2000 Pieces/reel ; TSD0603: 2000 Pieces/reel

Part No. (STAMP)	Inductance(uH)	D.C.R.(Ω Max)/Rated D.C. Current(A)		
		TSD0302	TSD0502	TSD0503
1R0	1.0	0.030 / 1.80		0.015 / 4.00
1R2	1.2	0.083 / 1.70	0.044 / 2.15	0.022 / 3.80
1R8	1.8	0.056 / 1.55		
2R2	2.2	0.058 / 1.50	0.059 / 1.63	0.029 / 2.41
3R3	3.3	0.064 / 1.30	0.062 / 1.50	0.034 / 2.36
3R9	3.9			
4R7	4.7	0.146 / 1.10	0.087 / 1.14	0.045 / 1.87
5R6	5.6	0.176 / 0.95		0.052 / 1.60
6R8	6.8	0.238 / 0.90	0.105 / 0.95	0.068 / 1.51
8R2	8.2	0.272 / 0.80	0.139 / 0.90	
100	10	0.30 / 0.70	0.150 / 0.76	0.090 / 1.33
120	12			
150	15	0.47 / 0.61	0.210 / 0.63	0.142 / 1.05
180	18			
220	22	0.59 / 0.52	0.275 / 0.56	0.208 / 0.86
270	27	0.63 / 0.44		
330	33	1.07 / 0.43	0.455 / 0.44	0.257 / 0.72
390	39			
470	47	1.31 / 0.34	0.730 / 0.35	0.352 / 0.62
680	68	2.61 / 0.25	0.935 / 0.30	0.525 / 0.51
820	82	2.95 / 0.20		
101	100	3.25 / 0.19	1.500 / 0.230	0.800 / 0.43
121	120		1.910 / 0.220	0.850 / 0.34
151	150	3.55 / 0.12	2.680 / 0.210	1.100 / 0.26
181	180		3.040 / 0.200	1.190 / 0.24
221	220		3.520 / 0.195	1.530 / 0.20
331	330	7.28 / 0.08	5.560 / 0.190	2.030 / 0.19
471	470		7.820 / 0.180	3.500 / 0.15
561	560		9.790 / 0.170	3.080 / 0.14
821	820			
102	1000			
152	1500	36.15 / 0.038		10.00 / 0.065
182	1800	57.62 / 0.036		
222	2200	84.43 / 0.035		19.00 / 0.050

Part No. (STAMP)	Inductance(uH)	D.C.R.(Ω Max)/Rated D.C. Current(A)		
		TSD0602	TSD06025	TSD0603
1R0	1.0	0.021 / 3.82	0.019 / 4.20	0.014 / 4.70
1R2	1.2	0.025 / 3.02		0.016 / 3.90
1R8	1.8	0.033 / 2.52	0.025 / 3.10	0.019 / 3.25
2R2	2.2	0.038 / 2.30	0.027 / 2.53	0.022 / 2.95
3R3	3.3	0.050 / 1.95	0.034 / 2.22	0.030 / 2.45
3R9	3.9	0.055 / 1.92	0.040 / 2.00	0.034 / 2.35
4R7	4.7	0.064 / 1.62	0.044 / 1.92	0.042 / 2.25
5R6	5.6	0.076 / 1.42	0.050 / 1.68	0.048 / 2.05
6R8	6.8	0.097 / 1.27	0.059 / 1.54	0.054 / 1.85
8R2	8.2	0.105 / 1.10	0.070 / 1.46	0.058 / 1.65
100	10	0.130 / 0.98	0.095 / 1.22	0.065 / 1.45
120	12	0.170 / 0.96	0.108 / 1.08	0.082 / 1.35
150	15	0.190 / 0.94	0.116 / 0.96	0.096 / 1.25
180	18	0.220 / 0.92	0.150 / 0.85	0.110 / 1.15
220	22	0.260 / 0.82	0.187 / 0.82	0.140 / 0.98
270	27	0.320 / 0.74	0.210 / 0.74	0.170 / 0.90
330	33	0.370 / 0.62	0.262 / 0.68	0.210 / 0.80
390	39	0.470 / 0.52	0.312 / 0.64	0.240 / 0.72
470	47	0.560 / 0.50	0.352 / 0.58	0.280 / 0.70
680	68	0.810 / 0.40	0.468 / 0.46	0.410 / 0.58
820	82	1.010 / 0.34	0.640 / 0.44	0.490 / 0.52
101	100	1.30 / 0.32	0.772 / 0.36	0.550 / 0.46
121	120	1.43 / 0.26	0.882 / 0.32	
151	150	1.86 / 0.24	1.020 / 0.28	
181	180	2.25 / 0.22	1.380 / 0.24	
221	220	2.75 / 0.20		
331	330	4.09 / 0.16		
471	470			
561	560			
821	820			
102	1000			
152	1500			
182	1800			
222	2200			

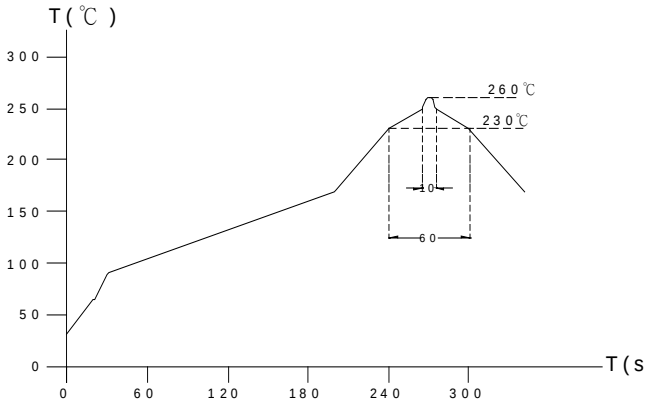
GENERAL CHARACTERISTICS

1. Operating temperature range: -40 TO + 105℃(Includes temperature when the coil is heated)
2. External appearance: On visual inspection, the coil has no external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil. Push in two directions of X.Ywithstanding at below conditions.
   Terminal should not peel off. (refer to figure at right) 5. 0N 60 sec.



4. Insulating resistance: Over 100MΩ at 100V D.C. between coil and core.
5. Dielectric strength: No dielectric breakdown at 100V D.C. for 1 minute between coil and core.
6. Temperature characteristics: Inductance coefficient (0~2,000)x10-6/℃(-25~+80℃).
7. Humidity characteristics(Moisture Resistance): Inductance deviation within ±5%, after 96 hours in 90~95% relative humidity at 40 ±2℃and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within ±5%, after vibration for 1 hour. In each of three orientations at sweep vibration (10~55~10 Hz) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within ±5%, after being dropped once with 981m/s2 (100G) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat: 260℃, 10 seconds(See attached recommend reflow)
11. Storage environment: Storage condition: Temperature Range: 10℃ ~ 35℃ (Generally: 21℃ ~ 31℃) , Humidity Range: 50% ~ 80% RH (Generally: 65% ~ 75%) ; Transportation condition: Temperature Range: -35℃ ~ 85℃ , Humidity Range: 50% ~ 95% RH
12. Use components within 6 months. If 6 months or more have elapsed, check soldarability before use.
13. Reflow profile recommend:

Lead-free heat endurance test



Lead-free the recommended reflow condition

