

Power Inductor SMD (7.80 X 7.00 X 5.00 mm)

FEATURES

- Ideal for Reflow
- High Current Capacity
- Halogen Free RoHS compliant
- Open Winding

SPECIFICATION

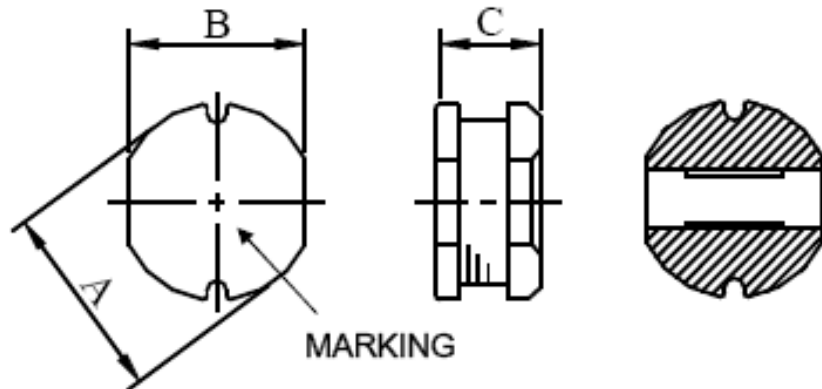
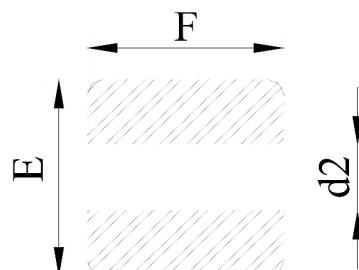
Part Number	Ind. (μH)	Test Freq (Hz)	DCR (Ω) Max.	IDC (A) Max.
TP0705BF-1R0_	1.0	7.96M	0.020	7.00
TP0705BF-2R2_	2.2	7.96M	0.023	4.50
TP0705BF-3R3_	3.3	7.96M	0.023	4.00
TP0705BF-4R7_	4.7	7.96M	0.025	3.50
TP0705BF-6R8_	6.8	7.96M	0.042	3.20
TP0705BF-8R2_	8.2	7.96M	0.050	3.00
TP0705BF-100_	10	2.52M	0.070	2.30
TP0705BF-120_	12	2.52M	0.080	2.00
TP0705BF-150_	15	2.52M	0.090	1.80
TP0705BF-180_	18	2.52M	0.100	1.60
TP0705BF-220_	22	2.52M	0.110	1.50
TP0705BF-270_	27	2.52M	0.120	1.30
TP0705BF-330_	33	2.52M	0.130	1.20

Part Number	Ind. (μH)	Test Freq (Hz)	DCR (Ω) Max.	IDC (A) Max.
TP0705BF-390_	39	2.52M	0.160	1.10
TP0705BF-470_	47	2.52M	0.180	1.10
TP0705BF-560_	56	2.52M	0.240	0.94
TP0705BF-680_	68	2.52M	0.280	0.85
TP0705BF-820_	82	2.52M	0.370	0.78
TP0705BF-101_	100	1K	0.430	0.72
TP0705BF-121_	120	1K	0.470	0.66
TP0705BF-151_	150	1K	0.640	0.58
TP0705BF-181_	180	1K	0.710	0.51
TP0705BF-221_	220	1K	0.960	0.49
TP0705BF-331_	330	1K	1.260	0.40
TP0705BF-471_	470	1K	1.960	0.34

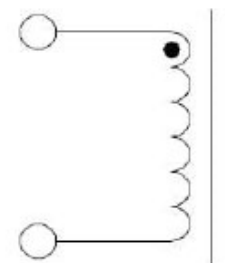
- Rated current: Min(Isat, Irms), Isat: drop 10% typ., Irms: ΔT=40°C typ. at 25°C ambient.
- Inductance tolerance option at end of part number: K: ±10% ; M: ±20%
- Test equipment: CH1062A / CH1320

DIMENSION

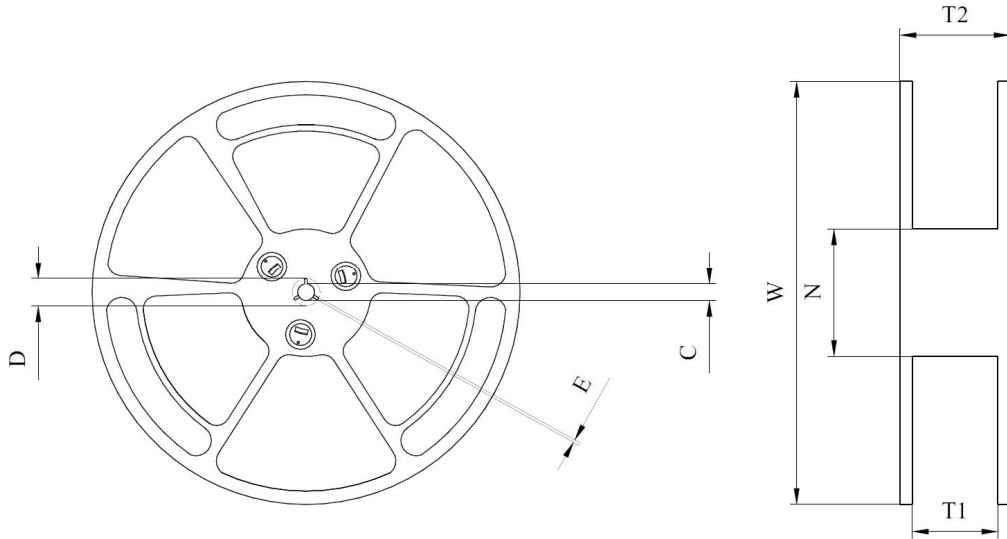
	mm
A	7.80 ±0.30
B	7.00 ±0.30
C	5.00 ±0.50


SOLDER PATTERN


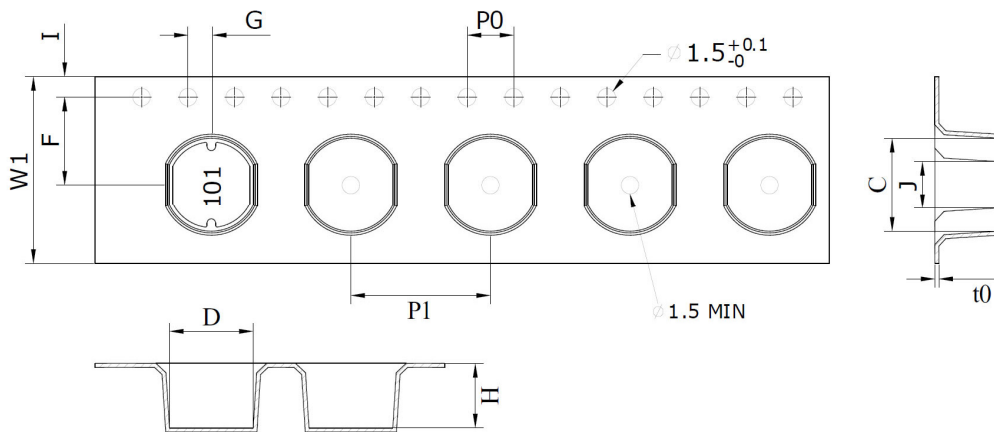
	mm
E	8.00
F	7.20
d2	2.10

SCHEMATIC


REEL DIMENSIONS (1000 pcs per reel)



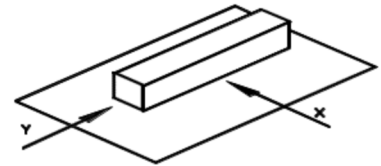
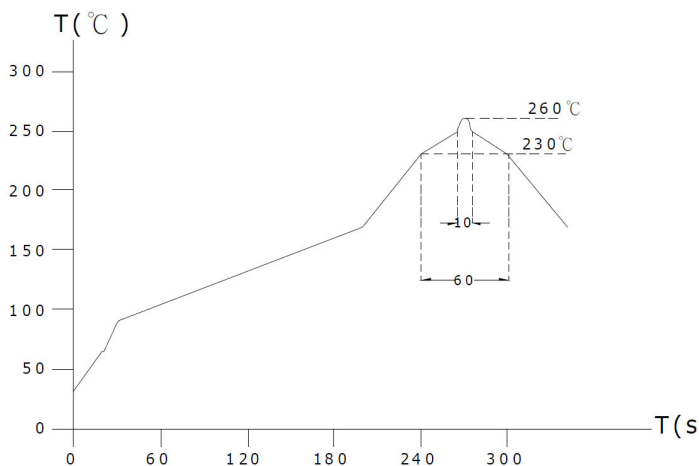
	mm
W	330±1.5
D	21.5+0.5/-0
C	13+0.5/-0.2
T1	16.5+0.5/-0
N	100±1.5
T2	21.4±0.4
E	2.00±0.5



	mm
W1	16.00±0.3
I	1.75±0.1
F	7.50±0.1
P0	4.00±0.1
G	2.00±0.1
P1	12.00±0.1
C	8.10±0.1
t0	0.35±0.05
D	7.20±0.1
H	5.50±0.1
J	3.70±0.1

RELIABILITY TEST

1. Operating temperature range
-40 TO + 105°C (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.Y withstanding 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 $(0\sim 2,000)\times 10^{-6}/^{\circ}\text{C}$ (-25~+80°C)
inductance deviation within $\pm 5.0\%$, after 96 hours
7. Humidity characteristics (Moisture Resistance)
Inductance deviation within $\pm 5\%$, after 96 hours in 90~95% relative humidity at $40 \pm 2^{\circ}\text{C}$ and 1 hour drying under normal condition.
8. Vibration resistance
Inductance deviation within $\pm 5\%$, 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 $\pm 5\%$, after being dropped once with 981m/s^2 (100G) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat: 260°C, 10 seconds (See recommended reflow)
11. Storage environment
Temperature Range: 10°C ~ 35°C (Generally: 21°C ~ 31°C)
Humidity Range: 50% ~ 80% RH (Generally: 65% ~ 75%)
Transportation condition:
Temperature Range: -35°C ~ 85°C
Humidity Range: 50% ~ 95% RH
12. Use components within 12 months.
If 12 months or more have elapsed, check solderability before use.


LEAD-FREE HEAT ENDURANCE TEST

LEAD-FREE RECOMMENDED REFLOW
