TPRH1207F Series

Power Inductor SMD (12.0 X 12.0 X 8.0 mm)

FEATURES

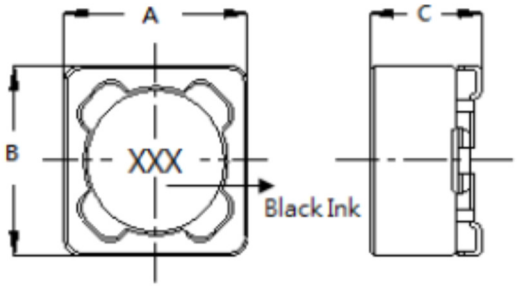
- Magnetic shielded
- Halogen Free RoHS compliant

SPECIFICATION

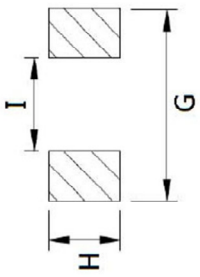
Part No.	Inductance (µH)	Marking	DC Resistance Max. (mΩ)	Rated DC Current (A) Max. ΔL/L=25% ΔT=40°C
TPRH1207F-4R7M	4.7 ±20%	4R7	16.0	6.80
TPRH1207F-100M	10 ±20%	100	22.0	5.40
TPRH1207F-120M	12 ±20%	120	25.0	4.90
TPRH1207F-150M	15 ±20%	150	27.0	4.50
TPRH1207F-180M	18 ±20%	180	40.0	3.90
TPRH1207F-220M	22 ±20%	220	44.0	3.60
TPRH1207F-270M	27 ±20%	270	46.0	3.40
TPRH1207F-330M	33 ±20%	330	65.0	3.00
TPRH1207F-390M	39 ±20%	390	73.0	2.75
TPRH1207F-470M	47 ±20%	470	100.0	2.50
TPRH1207F-560M	56 ±20%	560	110.0	2.35
TPRH1207F-680M	68 ±20%	680	140.0	2.10
TPRH1207F-820M	82 ±20%	820	160.0	1.95
TPRH1207F-101M	100 ±20%	101	220.0	1.70
TPRH1207F-121M	120 ±20%	121	250.0	1.60
TPRH1207F-151M	150 ±20%	151	280.0	1.42
TPRH1207F-181M	180 ±20%	181	350.0	1.30
TPRH1207F-221M	220 ±20%	221	390.0	1.16
TPRH1207F-271M	270 ±20%	271	560.0	1.06
TPRH1207F-331M	330 ±20%	331	640.0	0.95
TPRH1207F-391M	390 ±20%	391	700.0	0.88
TPRH1207F-471M	470 ±20%	471	980.0	0.79
TPRH1207F-561M	560 ±20%	561	1070	0.73
TPRH1207F-681M	680 ±20%	681	1460	0.67
TPRH1207F-821M	820 ±20%	821	1640	0.60
TPRH1207F-102M	1000 ±20%	102	1820	0.55

- Measurement frequency of Inductance value : at 1KHz, 0.25V
- Test equipment: CH1062A / CH1320

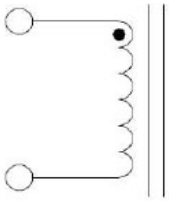
DIMENSION



SOLDER PATTERN



SCHEMATIC



	A	B	C	G	H	I
mm	12.00 ±0.30	12.00 ±0.30	8.00 Max	12.60 REF	5.40 REF	7.00 REF

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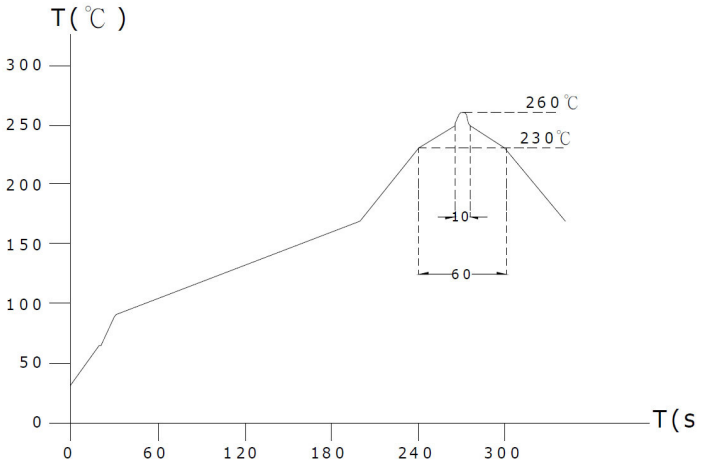
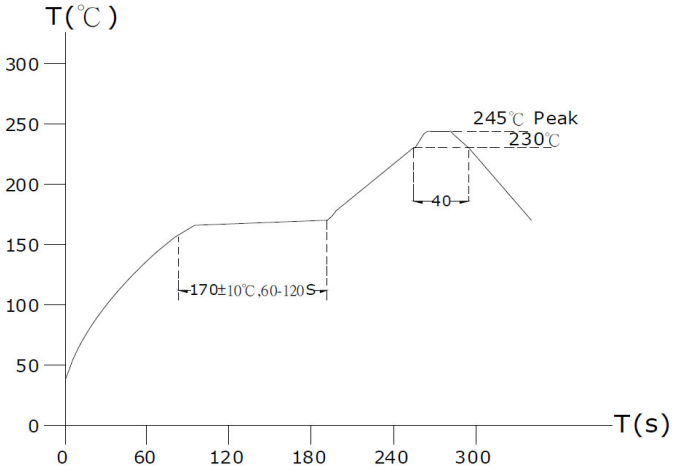
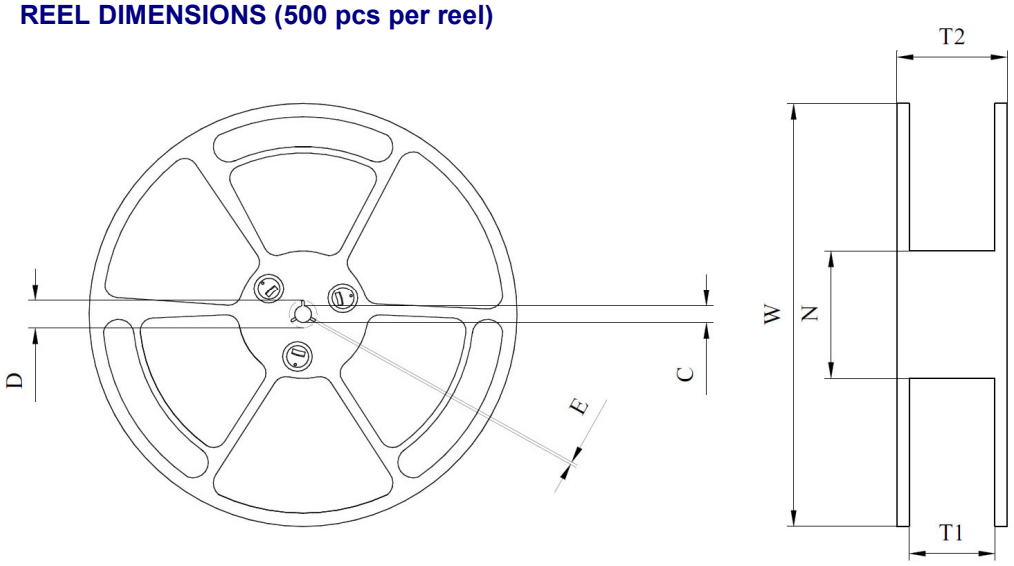
LEAD-FREE HEAT ENDURANCE TEST



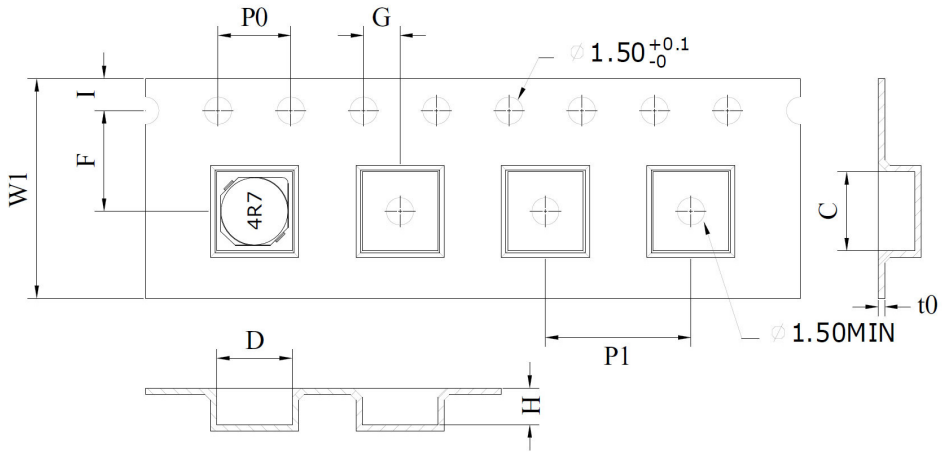
LEAD-FREE RECOMMENDED REFLOW



REEL DIMENSIONS (500 pcs per reel)



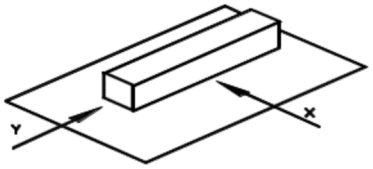
	mm
W	330±1.5
D	21.5+0.5/-0
C	13+0.5/-0.2
T1	24.5+0.5/-0
N	100±1.5
T2	29.5±0.4
E	2.00±0.5



	mm
W1	24.00±0.3
I	1.75±0.1
F	11.50±0.1
P0	4.00±0.1
G	2.00±0.1
P1	16.00±0.1
C	12.55±0.1
t0	0.40±0.05
D	12.55±0.1
H	8.3±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 (0~2,000)x10^{-6}/°C (-25~+80°C)
inductance deviation within ±5.0%, after 96 hours
7. Humidity characteristics (Moisture Resistance)
Inductance deviation within ±5%, after 96 hours in 90~95% relative humidity at 40 ±2°C 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/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: 0°C~35°C; -40°C~105°C (after mounting on PCB)
Humidity Range: 50% ~ 70% RH
12. Use components within 12 months.
If 12 months or more have elapsed, check solderability before use.