TMPIT05030F Series

Power Inductor SMD (5.4 X 6.0 X 3.0 mm)

FEATURES

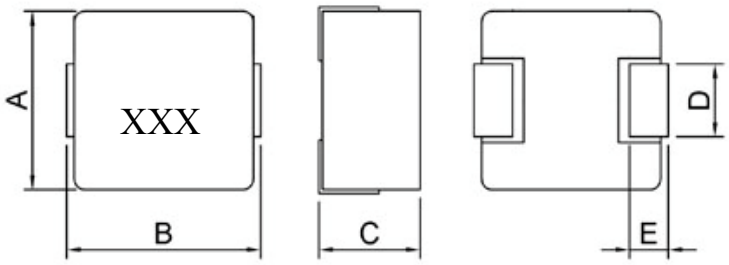
- Iron Powder Molding
- Shielded Construction
- Halogen Free RoHS compliant
- Low DCR
- Low acoustic noise

SPECIFICATION

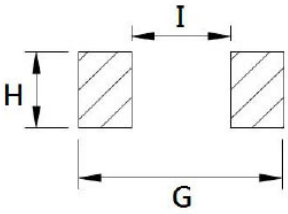
Part No.	Inductance (μH)	DC Resistance (mΩ) Max. (Typ.)	Rated DC Current (A) Typ. ΔL/L=20%	ΔT=40°C
TMPIT05030F-R22M	0.22±20%	4.40 (3.70)	21.0	15.5
TMPIT05030F-R33M	0.33±20%	5.00 (4.30)	18.0	14.0
TMPIT05030F-R47M	0.47±20%	7.40 (6.40)	16.0	12.0
TMPIT05030F-R56M	0.56±20%	10.0 (8.00)	15.0	10.0
TMPIT05030F-R68M	0.68±20%	12.0 (10.0)	14.0	8.5
TMPIT05030F-1R0M	1.0±20%	14.0 (13.0)	11.0	7.0
TMPIT05030F-1R5M	1.5±20%	25.0 (16.0)	10.0	6.0
TMPIT05030F-2R2M	2.2±20%	35.0 (25.0)	9.0	5.5
TMPIT05030F-3R3M	3.3±20%	38.0 (32.0)	8.0	5.0
TMPIT05030F-4R7M	4.7±20%	53.0 (50.0)	6.0	4.6
TMPIT05030F-5R6M	5.6±20%	63.0 (55.0)	4.5	4.25
TMPIT05030F-6R8M	6.8±20%	76.2 (68.0)	4.3	4.0
TMPIT05030F-100M	10±20%	128 (110)	3.5	2.75
TMPIT05030F-150M	15±20%	190 (165)	2.6	2.1
TMPIT05030F-220M	22±20%	250 (220)	1.7	1.9
TMPIT05030F-330M	33±20%	440 (380)	1.6	1.6

- Measurement frequency of Inductance value : 100KHz, 1V

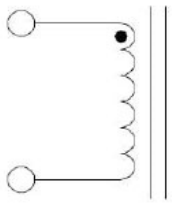
DIMENSION



SOLDER PATTERN



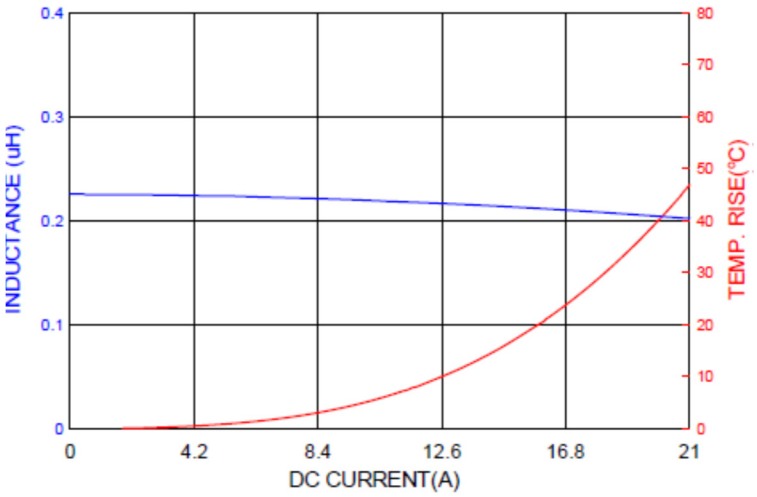
SCHEMATIC



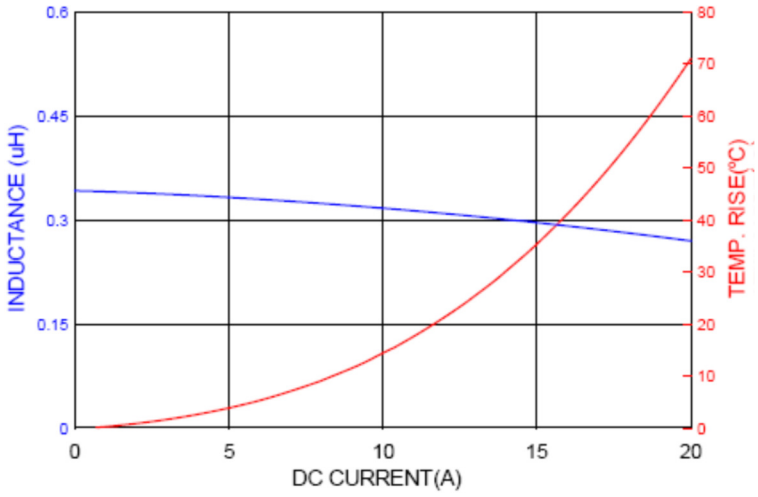
	A	B	C	D	E	G	H	I
mm	5.40 Max	6.00 Max	3.00 Max	1.50 ±0.3	1.20 Ref	6.20	2.00	2.50

TMPIT05030F Series

TMPIT05030F-R22M



TMPIT05030F-R33M



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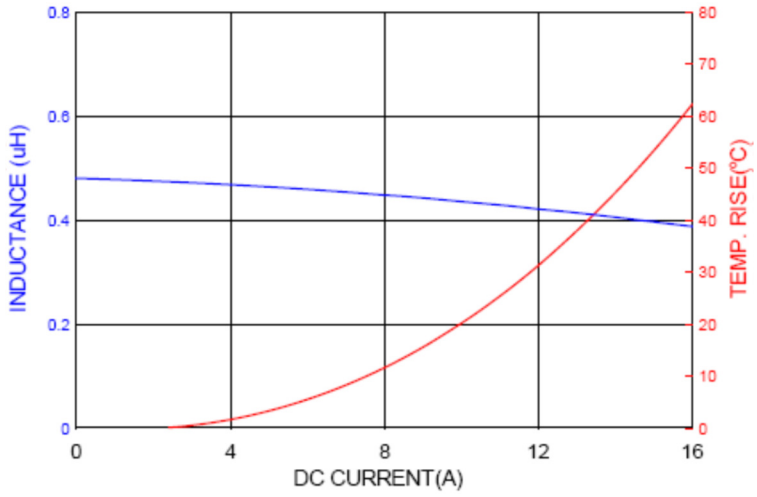

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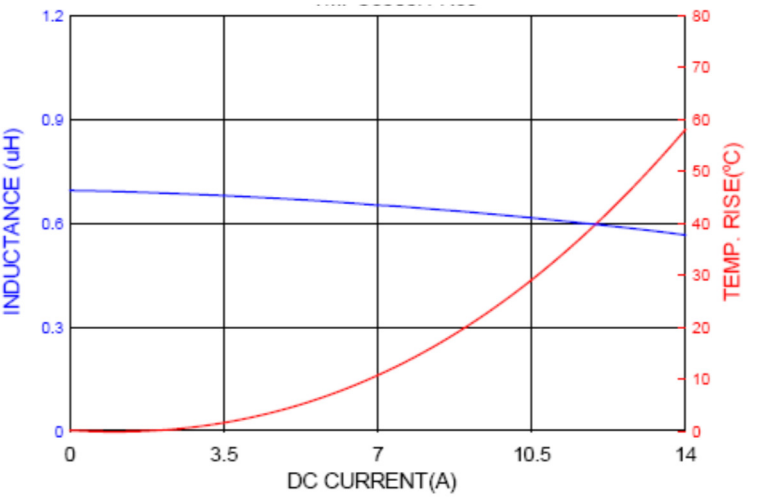
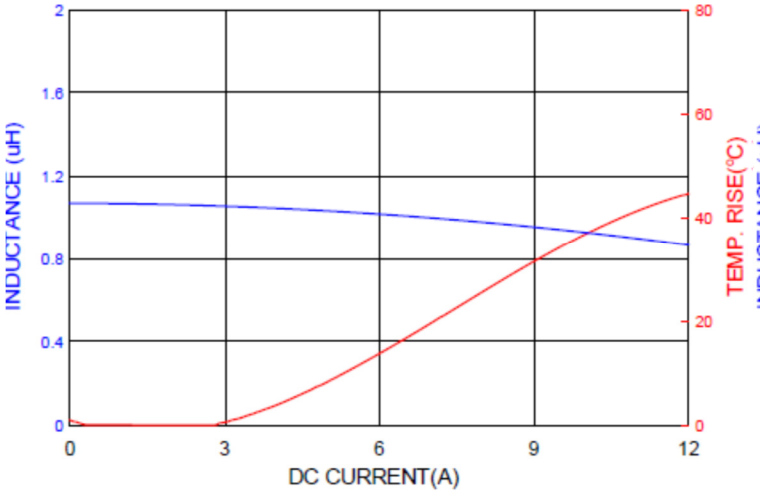


TMPIT05030F-1R0M



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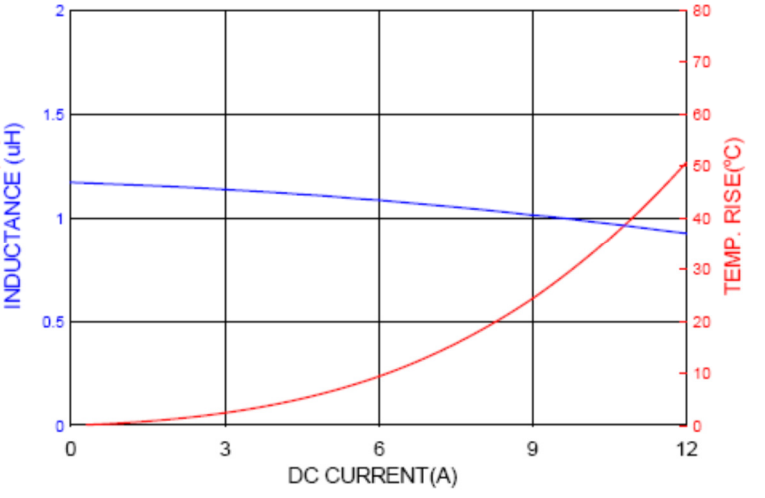
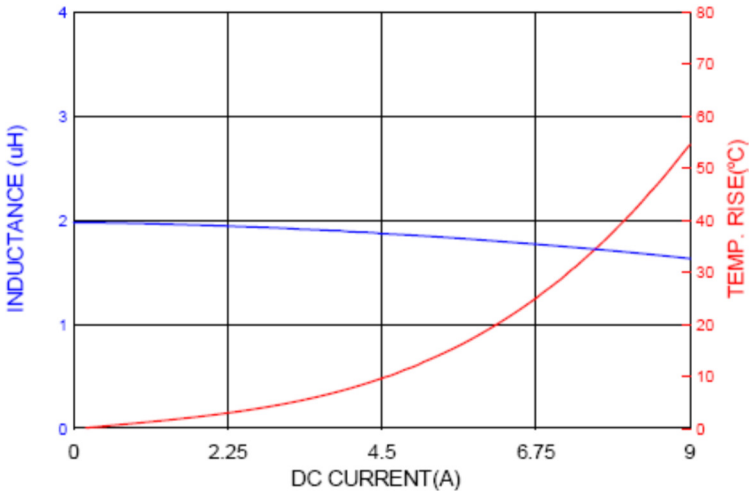
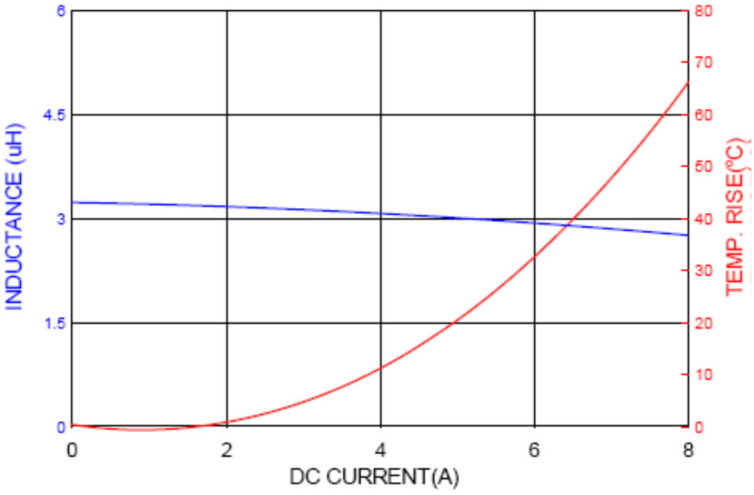


TMPIT05030F Series

TMPIT05030F-2R2M



TMPIT05030F-3R3M



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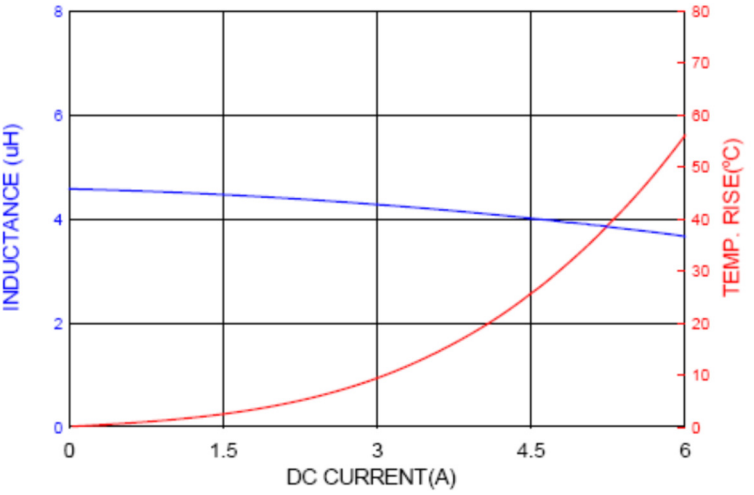

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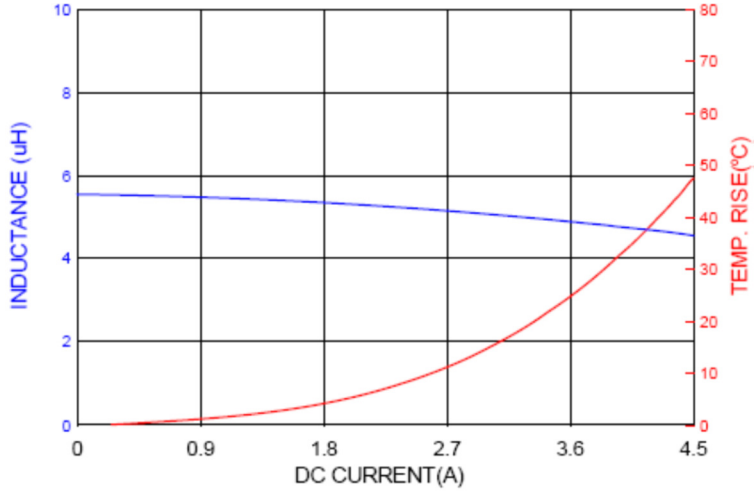
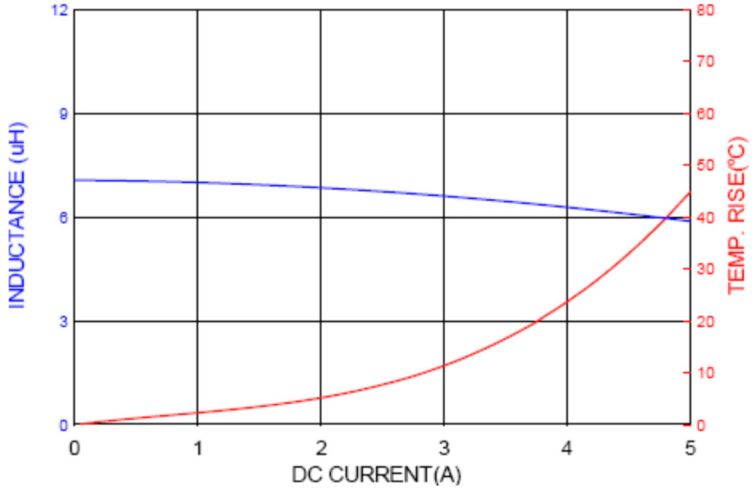
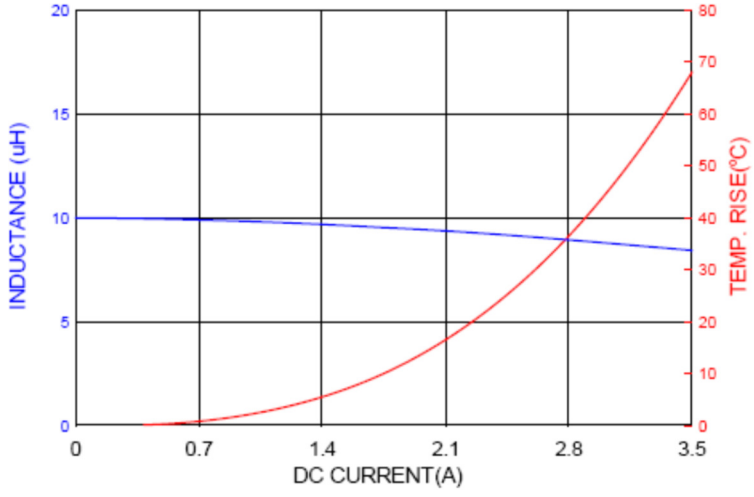


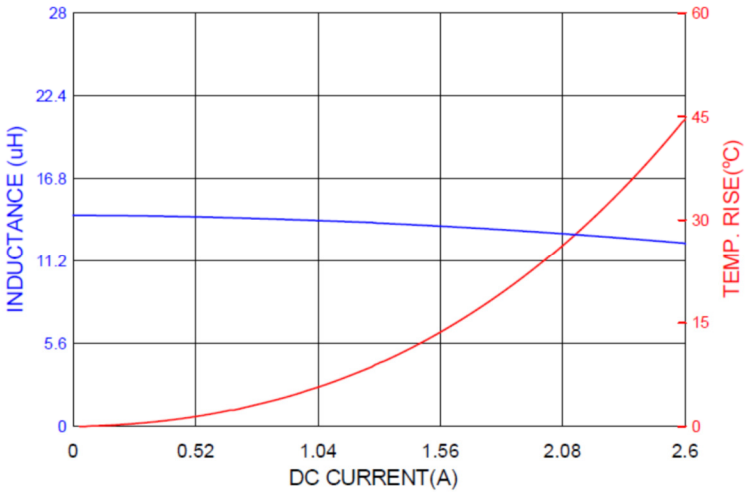
TMPIT05030F-6R8M



TMPIT05030F-100M



TMPIT05030F-150M



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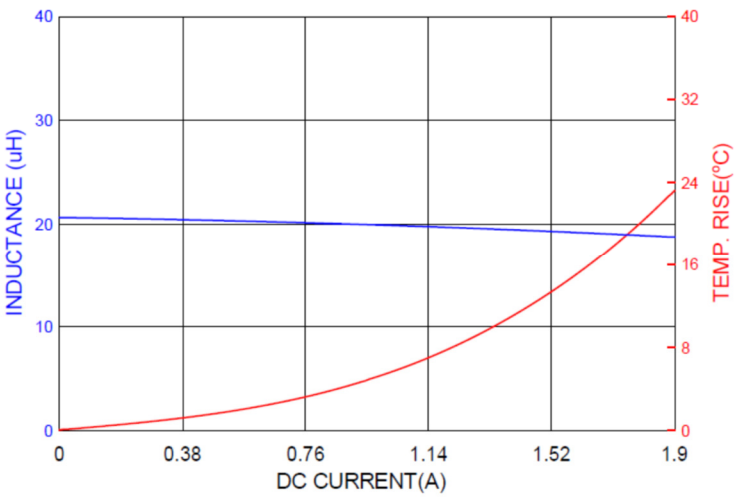
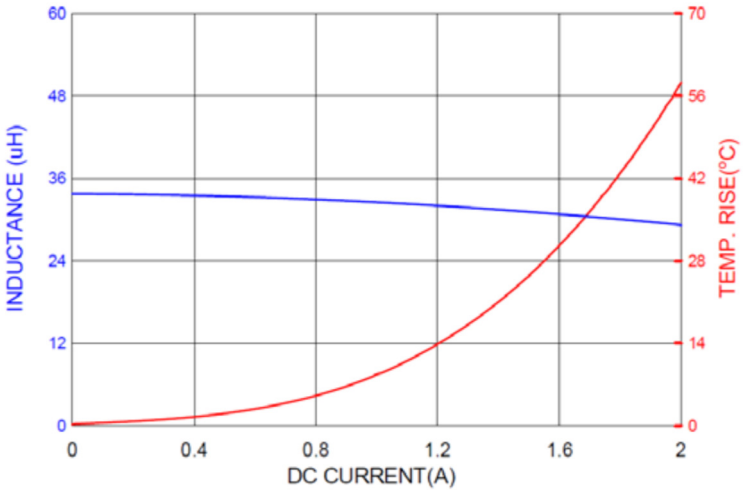
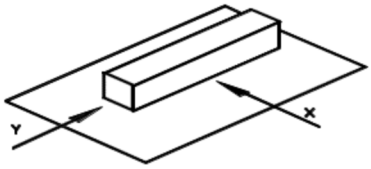


TMPIT05030F-330M



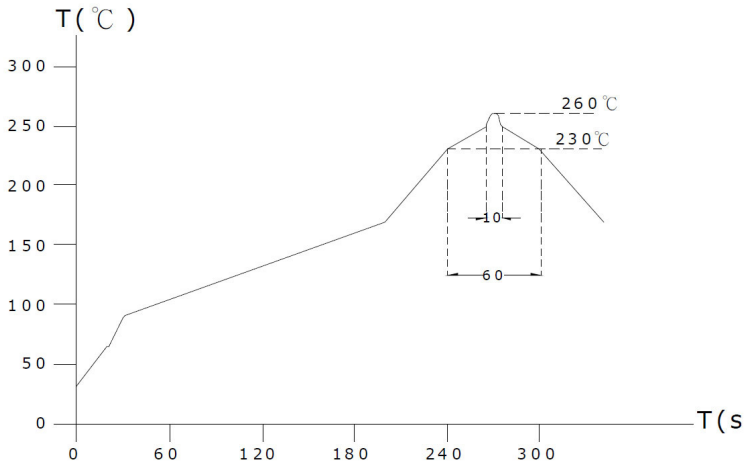
RELIABILITY TEST

1.Operating temperature range
-55 TO + 125°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 recommend reflow)
11. Storage environment
Temperature: 0°C~35°C; -55°C ~ 125°C (after PCB) Humidity Range: 50% ~ 70% 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