



• **DESCRIPTION**

SMD,INDUCTOR,10uH±20%

• **ELECTRICAL REQUIREMENTS**

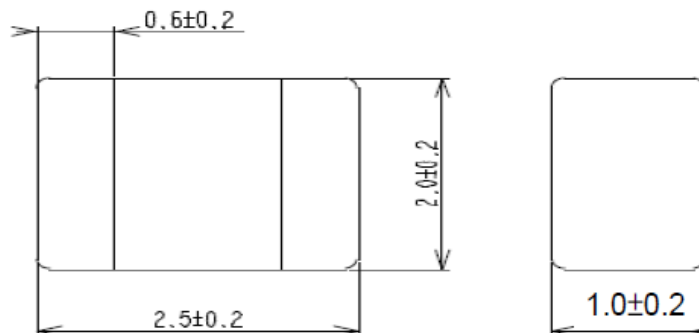
1. INDUCTANCE: 10uH±20%
2. DCR: 390mΩ±20%.
3. ACR: 1.9Ω±20%.
4. Isat Current: 1.00A (Drops 20% typ.)
5. Irms Current: 1.0A(ΔT=40°C typ.)



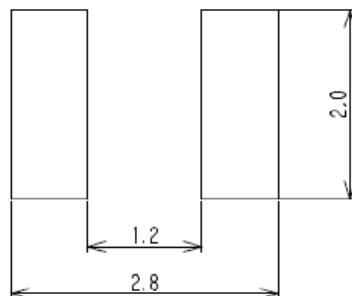
• **TEST METHOD**

1. TEST EQUIPMENT: CH3302 / CH1320
2. TEST FREQUENCY : 1MHz, 1V

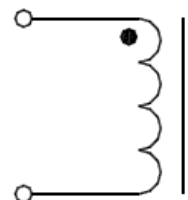
• **DIMENSION (UNIT:mm)**



**LAND PATTERNS:**



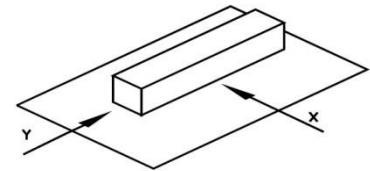
**SCHEMATICS:**





● **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)  
Applied force: 5N; Duration: 60sec.
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 degree Celsius)  
Inductance deviation within±5%, 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 (10~55~10Hz) with 1.5mm P-P amplitudes.
9. Shock resistance:  
Inductance deviation within ±5%, after being dropped once with 981m/s<sup>2</sup> (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 attached recommend reflow)
11. Storage environment:  
Storage condition:  
Temperature Range: 0°C ~ 35°C; -40°C ~ 105°C (after PCB)  
Humidity Range: 50% ~ 70% RH

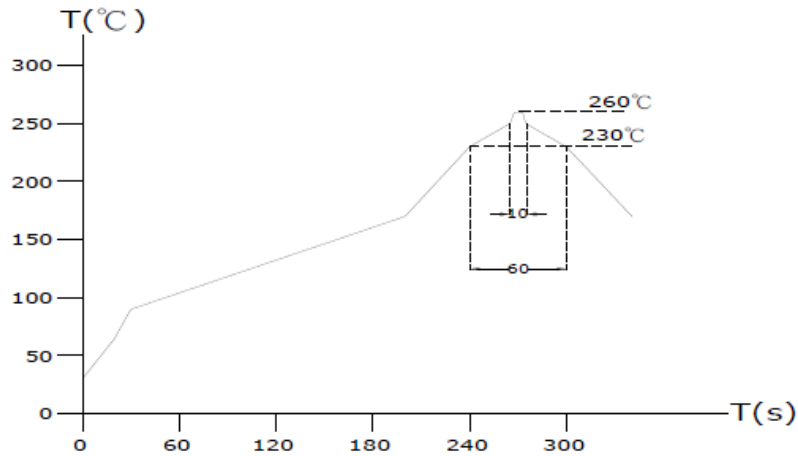


Use components within 12 months. If 12 months or more have elapsed, check solderability before use.



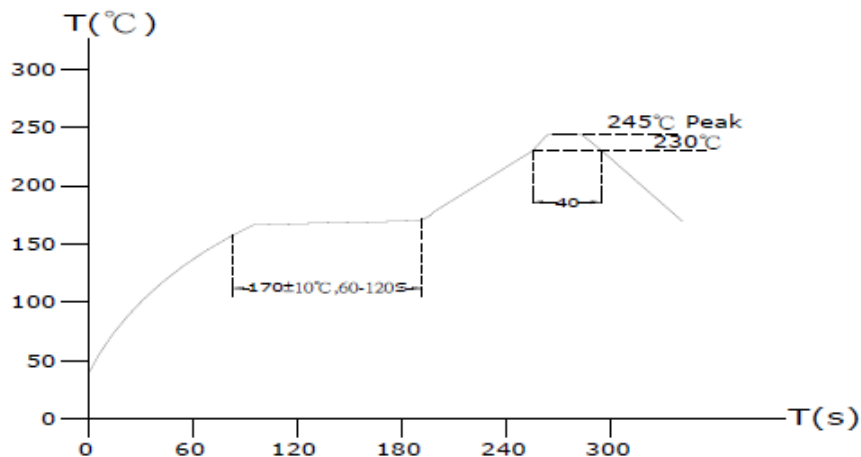
• **GENERAL CHARACTERISTICS**

Lead - free heat endurance test



- ✘ The test should be made under the conditions according to the chart, after the test it is kept for 2hours under the normal temperature and humidity. Then, no mechanical and electrical defect should be found out.
- ✘ The reflow test can be done twice, but the interval should be more than one hour under the normal conditions.
- ✘ The reflow test conditions are based on the testing instruments available in our company.

Lead-free the recommended reflow condition



- ✘ The reflow condition recommended above is according to the machine used by our company. Big differences will arise as a result of the type of machine, reflow conditions, method, etc used. Hence, before setting up your reflow conditions, please confirm with the above.