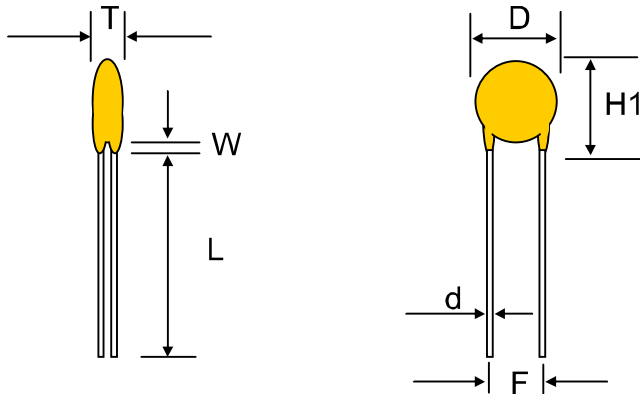


## Structure and Dimensions



( Unit : mm )

Body Size	D max.	T max.	F±1.0	d±0.05	L min	W max	H1 max
Φ 5 mm	6.0	3.5	3.5	0.5	25.0	3.0	8.0

Material of coating : Epoxy powder

Color of coating : Yellowish brown

## Electrical Characteristics

Part No.	Zero Power Resistance at 25°C	Tolerance of R <sub>25</sub>	B25/50 Value	Tolerance of B Value	Max. Power Rating at 25°C
	R <sub>25</sub> (KΩ)	(± %)	(K)	(± %)	P <sub>max</sub> (mW)
	Option	Option	Option	Option	450

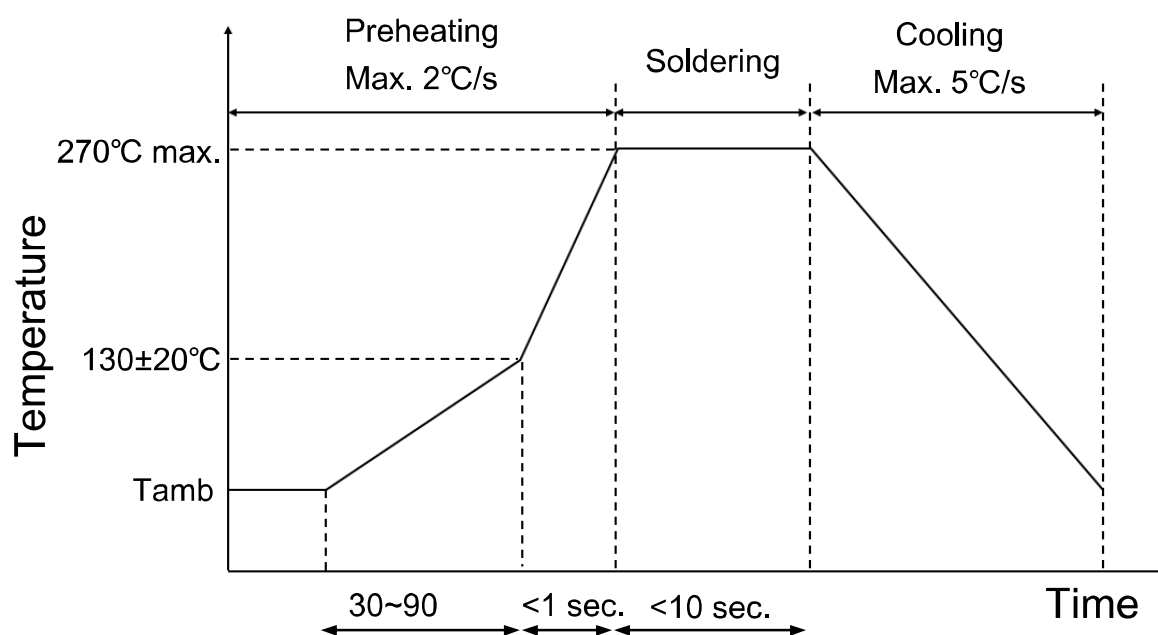
Part No.	Dissipation Factor	Thermal Time Constant	Operating Temperature Range
	δ (mW/°C)	τ (sec.)	T <sub>L</sub> ~T <sub>U</sub> ( °C )
	7.5	18	-40 ~ +125

**Reliability**

Item	Standard	Test conditions/Methods	Specifications															
Terminal pull strength	IEC 60068-2-21	<p>Gradually applying the force and keeping the unit fixed for 10±1 sec.</p> <table border="1"> <thead> <tr> <th>Terminal diameter (mm)</th> <th>Force (Kg)</th> </tr> </thead> <tbody> <tr> <td>0.3&lt;d ≤ 0.5</td> <td>0.5</td> </tr> <tr> <td>0.5&lt;d ≤ 0.8</td> <td>1.0</td> </tr> </tbody> </table>	Terminal diameter (mm)	Force (Kg)	0.3<d ≤ 0.5	0.5	0.5<d ≤ 0.8	1.0	No visible damage									
Terminal diameter (mm)	Force (Kg)																	
0.3<d ≤ 0.5	0.5																	
0.5<d ≤ 0.8	1.0																	
Bending Strength of Terminals	IEC 60068-2-21	<p>Hold specimen and apply the force specified below to each lead. Bend the specimen to 90° , then return to the original position. Repeat the procedure in the opposite direction.</p> <table border="1"> <thead> <tr> <th>Terminal diameter (mm)</th> <th>Force (Kg)</th> </tr> </thead> <tbody> <tr> <td>0.3&lt;d ≤ 0.5</td> <td>0.25</td> </tr> <tr> <td>0.5&lt;d ≤ 0.8</td> <td>0.50</td> </tr> </tbody> </table>	Terminal diameter (mm)	Force (Kg)	0.3<d ≤ 0.5	0.25	0.5<d ≤ 0.8	0.50	No visible damage									
Terminal diameter (mm)	Force (Kg)																	
0.3<d ≤ 0.5	0.25																	
0.5<d ≤ 0.8	0.50																	
Solderability	IEC 60068-2-20	245±3°C, 3±0.3 sec	At least 95% of terminal electrode is covered by new solder															
Resistance to Soldering Heat	IEC 60068-2-20	260±5°C, 10±1 sec	No visible damage △R25 ≤ ±3%															
High Temperature Storage	IEC 60068-2-2	125±5°C, 1000hrs	No visible damage △R25 ≤ ±5%															
Damp Heat Steady State	IEC 60068-2-3	40±2°C , 90~95% RH, 1000±24hrs	No visible damage △R25 ≤ ±3%															
Rapid Change of Temperature	IEC 60068-2-14	<p>The conditions shown below shall be repeated 5 cycles</p> <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>Period (minutes)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-40±5</td> <td>30±3</td> </tr> <tr> <td>2</td> <td>Room temperature</td> <td>5±3</td> </tr> <tr> <td>3</td> <td>125±5</td> <td>30±3</td> </tr> <tr> <td>4</td> <td>Room temperature</td> <td>5±3</td> </tr> </tbody> </table>	Step	Temperature (°C)	Period (minutes)	1	-40±5	30±3	2	Room temperature	5±3	3	125±5	30±3	4	Room temperature	5±3	No visible damage △R25 ≤ ±3%
Step	Temperature (°C)	Period (minutes)																
1	-40±5	30±3																
2	Room temperature	5±3																
3	125±5	30±3																
4	Room temperature	5±3																
Life Test	IEC 60539-14.26.3	25±5°C , Pmax, 1000hrs	No visible damage △R25 ≤ ±5%															

## Soldering Recommendation

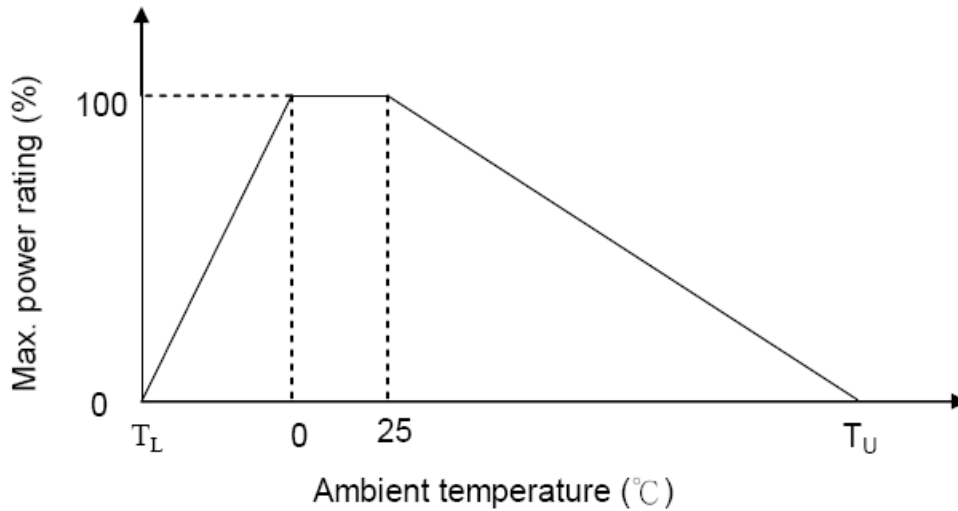
### ■ Wave Flow Soldering Profile



### ■ Recommended Reworking Conditions With Soldering Iron

Item	Conditions
Temperature of Soldering Iron-tip	$380^\circ\text{C}$ (max.)
Soldering Time	2 sec (max.)
Distance form NTC Thermistor	6 mm (min.)

## **Power Derating Curve**



Note :  $T_L$  = Minimum operating temperature (°C)

$T_U$  = Maximum operating temperature (°C)

## **RoHS Compliant Declaration**

We hereby declare that the components delivered to your company are compliant with RoHS directive 2011/65/EU

## **Storage condition of products**

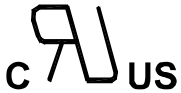
(I) Storage Conditions :

- 1.Storage Temperature : -10 ~ +40°C
- 2.Relative Humidity :  $\leq 75\%RH$
- 3.Keep away from corrosive atmosphere and sunlight.

(II) Period of Storage : 1 year

**Safety Approvals**

( Model No. : JCR )



\* UL 1434 recognized ( File # E171531 )



\* TÜV / EN60539-1:2008 recognized  
( File # R 50357749 )

**Certificate**

(1) ISO 9001 certificate

**Tset Report**

(1) RoHS SGS test report

(2) RoHS2.0 SGS test report

(2) Halogen-free test report