

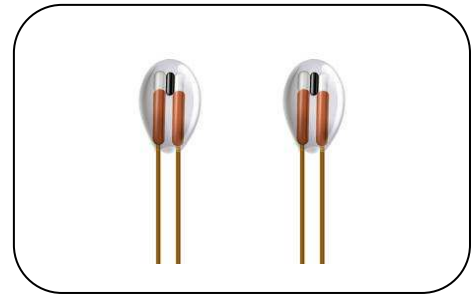
NTC Thermistor: TGM Series



Glass Encapsulated Type for Temperature Sensing/Compensation

■ Features

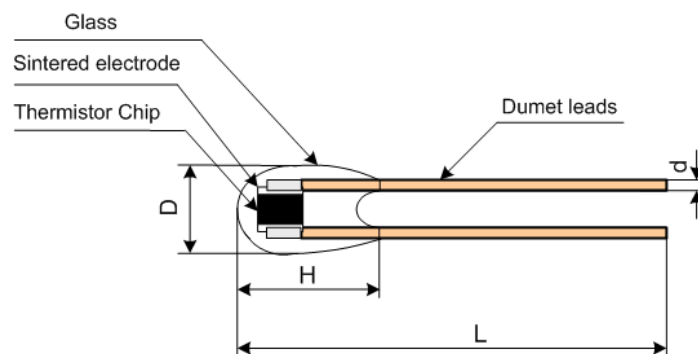
1. RoHS compliant
2. Glass-encapsulated and heat-resistive
3. Body size: $\phi 2.5\text{mm}$
4. Operating temperature range: $-40 \sim +250\text{ }^{\circ}\text{C}$



■ Recommended Applications

1. Home appliances
2. Automotive electronics

■ Structure and Dimensions



Unit: mm

Part No.	D	H	L	d
TGMA	2.5 ± 0.2	3.8 ± 0.5	≥ 40	0.30 ± 0.02

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■ Electrical Characteristics

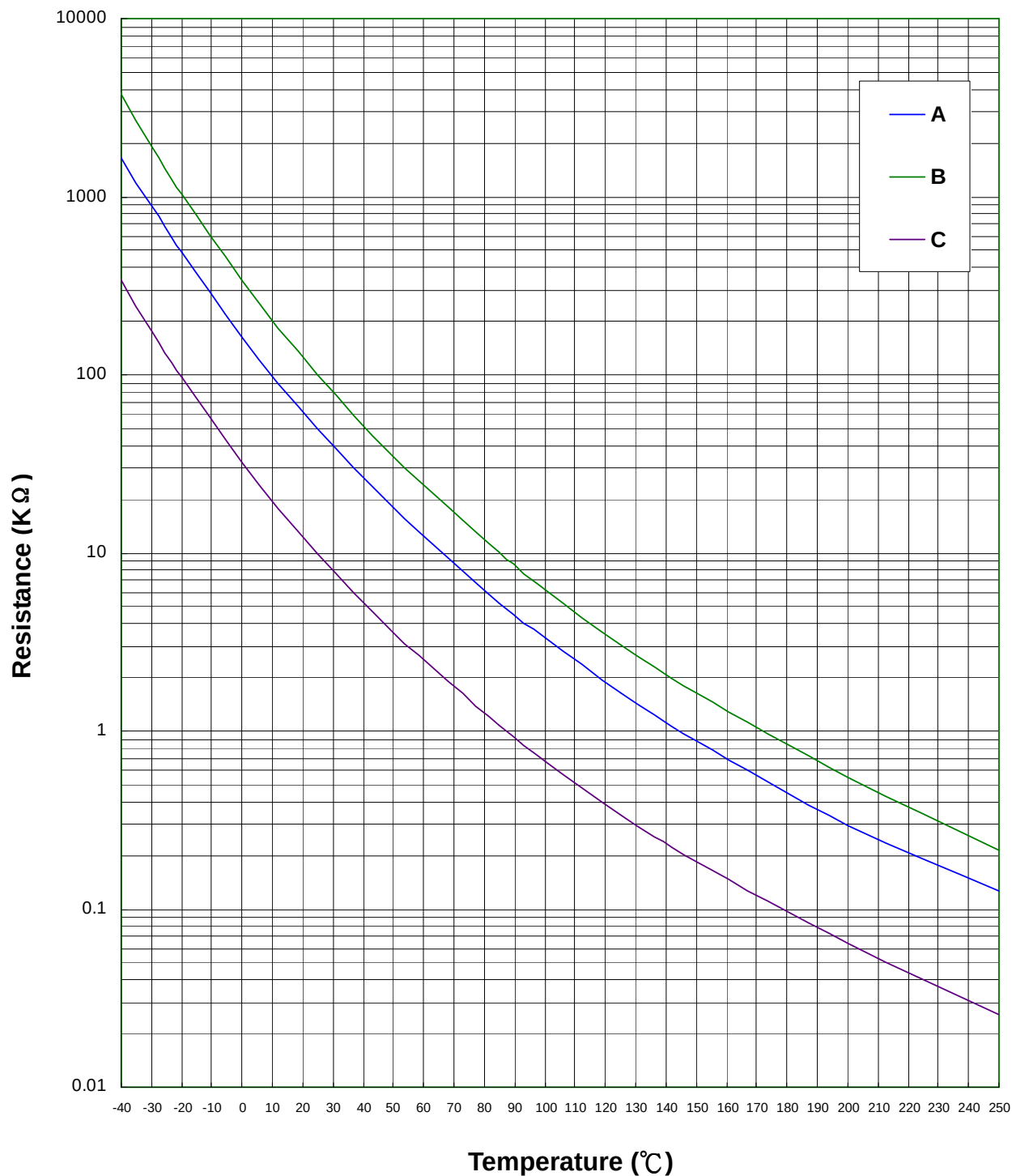
Part No.	Zero Power Resistance	B _{25/85} Value	RT Curve	Max. Power Dissipation at 25℃	Dissipation Factor	Thermal Time Constant	Operating Temperature Range
	(KΩ)	(K)	--	P _{max} (mW)	δ(mW/℃)	τ(Sec.)	T _L ~T _U (℃)
TGMAA503F3993DA6	R100=3.3K±2%	B0/100=3970±3%	A	70	Approx. 1.4	Approx. 14	-40 ~ +250
TGMAA503F3993DA5	R100=3.3K±3%						
TGMAA503F3993DA1	R100=3.3K±5%						
TGMAA503G4013DA1	R25=50K±2%						
TGMAA503H4013DA1	R25=50K±3%						
TGMAA503J4013DA1	R25=50K±5%						
TGMAA104G4113DA1	R25=100K±2%	B100/200=4300±3%	B				
TGMAA104H4113DA1	R25=100K±3%						
TGMAA104J4113DA1	R25=100K±5%						
TGMAA104F4113DA2	R200=0.55K±2%						
TGMAA104F4113DA3	R200=0.55K±3%						
TGMAA104F4113DA5	R200=0.55K±5%						
TGMAA103G39HAD	R25=10K±2%	B25/85= 3975±1.5%	C				
TGMAA103H39HAD	R25=10K±3%						
TGMAA103J39HAD	R25=10K±5%						

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■ R-T Characteristic Curves (representative)



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■ Reliability

Item	Standard	Test conditions / Methods	Specifications															
High Temperature Storage	IEC60068-2-2	Tu ± 5°C, 1000 ± 24 hrs	No visible damage ΔR25/R25 ≤ 5 %															
Damp Heat, Steady State	IEC60068-2-3	40 ± 2°C, 90~95% RH, 1000 ± 24 hrs	No visible damage ΔR25/R25 ≤ 5 %															
Rapid Change of Temperature	IEC60068-2-14	The conditions shown below shall be repeated 5 cycles <table><tr><th>Step</th><th>Temperature (°C)</th><th>Period (minutes)</th></tr><tr><td>1</td><td>-T_L±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>T_u±5</td><td>30±3</td></tr><tr><td>4</td><td>Room temperature</td><td>5±3</td></tr></table>	Step	Temperature (°C)	Period (minutes)	1	-T _L ±5	30±3	2	Room temperature	5±3	3	T _u ±5	30±3	4	Room temperature	5±3	No visible damage ΔR25/R25 ≤ 5 %
Step	Temperature (°C)	Period (minutes)																
1	-T _L ±5	30±3																
2	Room temperature	5±3																
3	T _u ±5	30±3																
4	Room temperature	5±3																
Max. Power Dissipation	IEC 60539-1	25 ± 5°C, Pmax. X 1000 ± 24 hrs	No visible damage ΔR25/R25 ≤ 5 %															

■ Storage Conditions of Products

- Storage Conditions :
 1. Storage Temperature : $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$
 2. Relative Humidity : $\leq 75\% \text{RH}$
 3. Keep away from corrosive atmosphere and sunlight.
- Shelf life : 1 year