

NTC Thermistor: XNGR Series



Glass Encapsulated Type for Temperature -controlled/Measure

XNGR Features

1. RoHS compliant
2. Glass-encapsulated and heat-resistive
3. Body size: $\phi 1.2$ mm $\phi 1.35$ mm $\phi 1.7$ mm $\phi 2.0$ mm $\phi 2.5$ mm
4. Operating temperature range: $-40 \sim +300$ °C



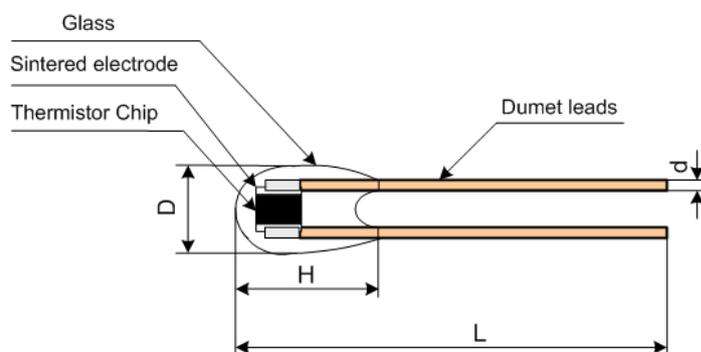
Recommended Applications

1. Home appliances
2. Automotive electronics
3. medical equipment

Part Number Code

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16			
X	N	G	R	A	1	0	4	F	A	3	4	D	1	A	0			
XINGXIANG NTC Thermistor XNG Series			SIZE the fourth code A:axial R: radial the fifth code A: $\phi 1.2$ B: $\phi 1.35$ C: $\phi 1.7$ D: $\phi 2.0$ E: $\phi 2.5$		Zero Power Resistance at 25°C (R25) 104.10 $\cdot 10^4 \Omega$			Tolerance of R25 F:1% G:2% H:3% J:5% K:10% A:0.5% B:0.75%		Definition of B Value A:B25/85 B:B25/50 X:special			B Value the first two digits are unchanged and the latter represents two digits.1:10 \cdots 9:90 A:15 B:25 \cdots 1:95 example 34D:3435 395:3950		Tolerance of B value 1.1% 2.2% 3.3% ...		optional suffix	

Structure and Dimensions



Unit: mm

Part No.	D	H	L	d
XNGR	1.2~2.5	3~4	20~70	0.2~0.25

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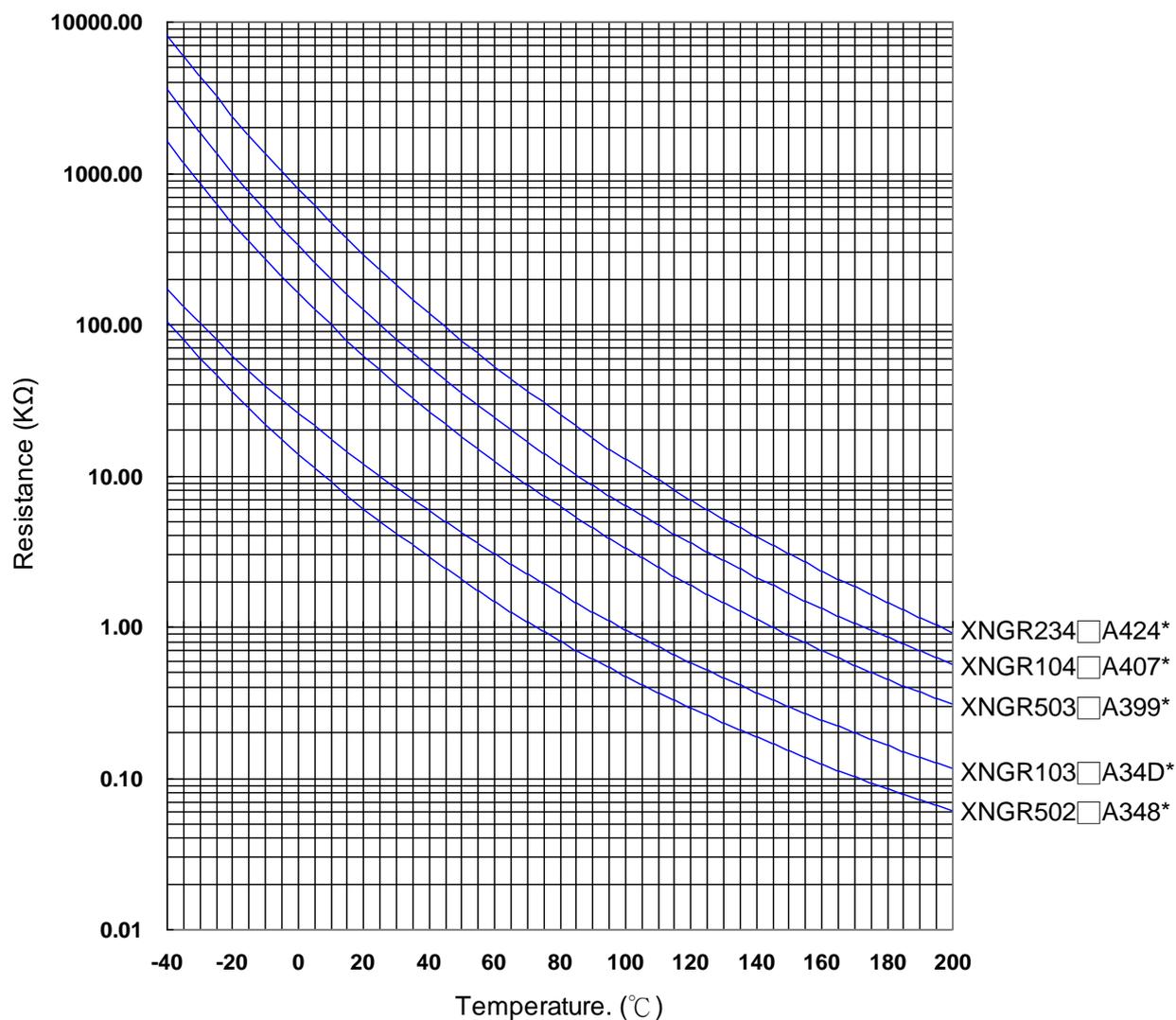
Electrical Characteristics

Part No.	Zero Power Resistance at 25°C	Tolerance of R ₂₅ (±%)	B _{25/85} Value	Tolerance of B Value (±%)	Max. Power Dissipation at 25°C	Dissipation Factor δ(mW/°C)	Thermal Time Constant τ(Sec.)	Operating Temperature Range T _L ~T _U (°C)
	R ₂₅ (KΩ)		(K)		P _{max} (mW)			
XNGR502□A348*	5	2、3 5、10	3480	2、3	70	Approx. 1.4	Approx. 14	-40 ~ +200
XNGR103□A34D*	10		3435					
XNGR503□A399*	50		3990					
XNGR104□A407*	100		4070					
XNGR234□A424*	230		4240					

Note 1: □ = Tolerance of R₂₅

Note 2: * = Tolerance of B value

R-T Characteristic Curves (representative)



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■ Reliability

Item	Standard	Test conditions / Methods	Specifications															
High Temperature Storage	IEC60068-2-2	200 ± 5°C, 1000 ± 24 hrs	No visible damage $\Delta R_{25}/R_{25}$ ≤ 5 %															
Damp Heat, Steady State	IEC60068-2-3	40 ± 2°C, 90~95% RH, 1000 ± 24 hrs	No visible damage $\Delta R_{25}/R_{25}$ ≤ 3 %															
Rapid Change of Temperature	IEC60068-2-14	The conditions shown below shall be repeated 5 cycles <table border="1" style="margin-left: auto; margin-right: auto;"> <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>200±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	200±5	30±3	4	Room temperature	5±3	No visible damage $\Delta R_{25}/R_{25}$ ≤ 3 %
Step	Temperature (°C)	Period (minutes)																
1	-40±5	30±3																
2	Room temperature	5±3																
3	200±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 $\Delta R_{25}/R_{25}$ ≤ 5 %															

■ Storage Conditions of Products

- Storage Conditions :
 1. Storage Temperature : -10°C~+40°C
 2. Relative Humidity : ≤75%RH
 3. Keep away from corrosive atmosphere and sunlight.
- Shelf life : 1 year