

# Positive Tempco Thermistor Type PT72

ISO 9001:2000  
CERTIFIED  
TS-16949  
CERTIFIED

## 1. Features

- Reduced size, light weight and small mounting area
- Quick thermal response
- Curie temperature: 70°C, 80°C, 100°C
- Marking: Black coating for 70°C Curie temperature  
Brown coating for 80°C Curie temperature  
Blue coating for 100°C Curie temperature

## 2. Dimensions

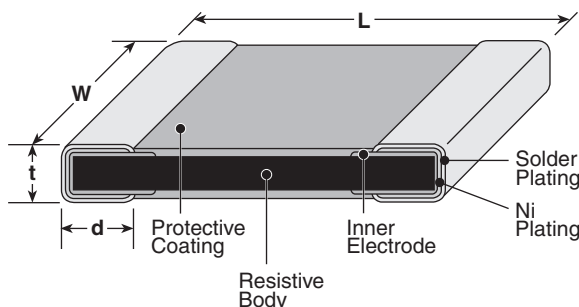
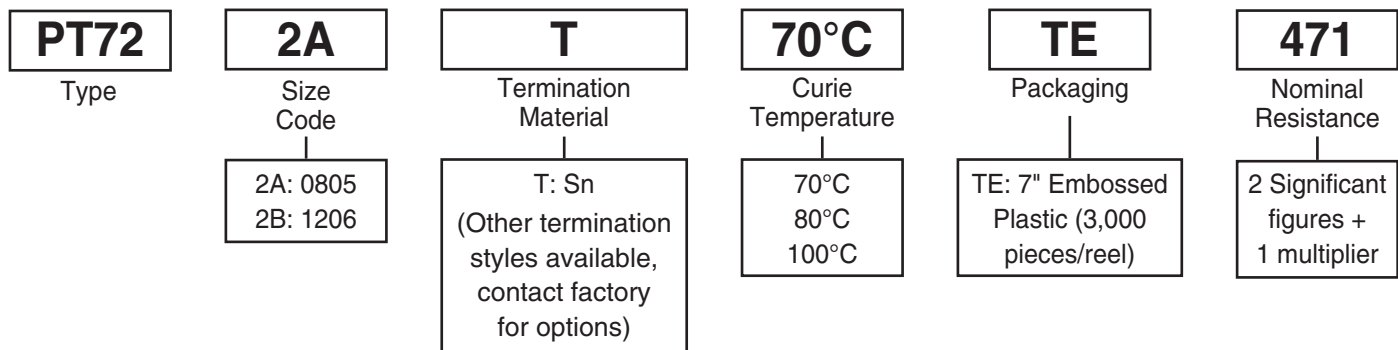


Table 1

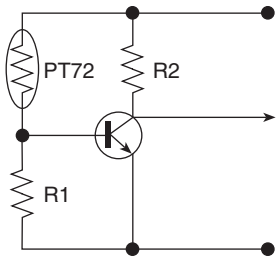
Dimensions - inches (mm)				
Type	L	W	t	d
<b>2A (0805)</b>	.079±.008 (2.0±0.2)	.049±.008 (1.25±0.2)	.039±.008 (1.0±0.2)	.016±.008 (0.4±0.2)
<b>2B (1206)</b>	.126±.008 (3.2±0.2)	.063±.008 (1.6±0.2)	.039±.008 (1.0±0.2)	.020±.012 (0.5±0.3)

## 3. Type Designation

Type designation shall be as the following form.



## 4. Typical Circuit Schematic

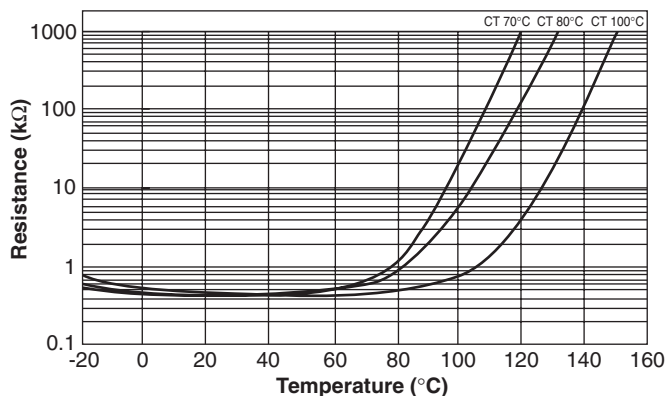


## 5. Applications and Ratings

Part Designation	Curie Temperature	Resistance @ 25°C	Resistance Tolerance	Temperature @ R <sub>25</sub> x 7	Absolute Maximum Working Voltage	Operating Temperature Range
PT722A	70°C	470Ω	±50%	85°C ± 10°C	16V	-55°C to +125°C
	80°C			95°C ± 10°C		
	100°C			115°C ± 10°C		
PT722B	70°C	120Ω, 470Ω, 1kΩ		85°C ± 10°C		
	80°C	50Ω, 470Ω, 1kΩ		95°C ± 10°C		
	100°C	470Ω, 1kΩ		115°C ± 10°C		

## 6. Environmental Applications

### 6.1 Temperature Characteristics

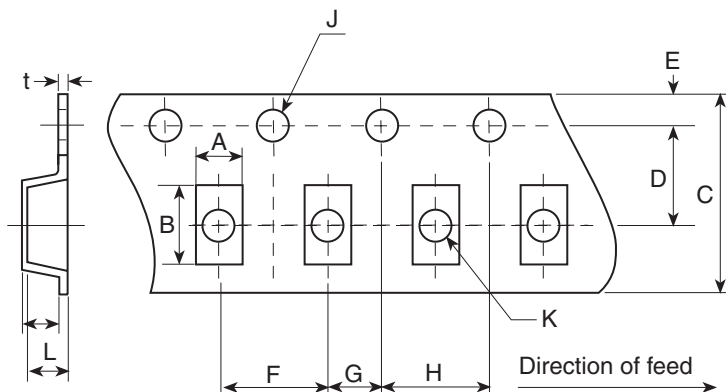


## 6.2 Performance Characteristics

Parameter	Requirement $\Delta R$		Test Method
	Limit	Typical	
Resistance to Solder Heat	$\pm 20.0\%$	$\pm 4.0\%$	$260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ , 10 seconds $\pm$ 1 second
Rapid Change of Temperature	$\pm 20.0\%$	$\pm 4.0\%$	$-55^{\circ}\text{C}$ (30 minutes), $+125^{\circ}\text{C}$ (30 minutes), 5 cycles
Resistance	$\pm 50.0\%$	$\pm 35.0\%$	$25^{\circ}\text{C}$
Humidity Resistance	$\pm 20.0\%$	$\pm 4.0\%$	$40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , 90 - 95% RH, 1000 hours
Load Life	$\pm 5.0\%$	$\pm 4.0\%$	$25^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , 1000 hours, rated voltage

## 7. Packaging Specifications

### 7.1 Dimensions of Plastic Tape



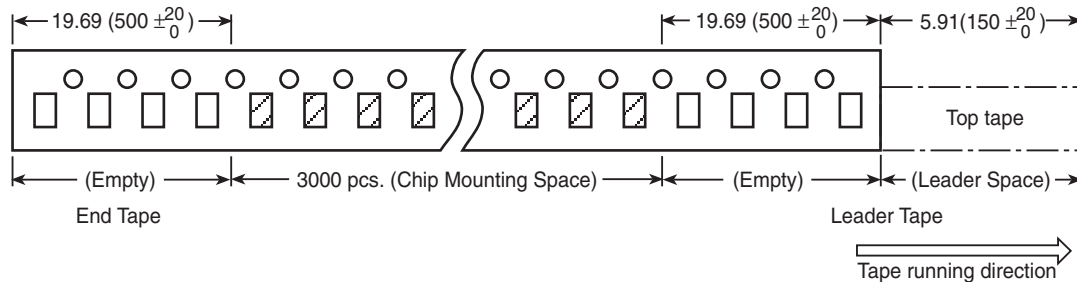
Dimensions in inches (mm)

Series	A	B	C	D	E	F
2A	$0.057 \pm 0.004$ (1.45 $\pm$ 0.1)	$0.089 \pm 0.004$ (2.25 $\pm$ 0.1)	$0.315 \pm 0.008$ (8.0 $\pm$ 0.2)	$0.138 \pm 0.002$ (3.5 $\pm$ 0.05)	$0.069 \pm 0.004$ (1.75 $\pm$ 0.1)	$0.157 \pm 0.004$ (4.0 $\pm$ 0.1)
2B	$0.075 \pm 0.004$ (1.9 $\pm$ 0.1)	$0.138 \pm 0.004$ (3.5 $\pm$ 0.1)	$0.315 \pm 0.008$ (8.0 $\pm$ 0.2)	$0.138 \pm 0.002$ (3.5 $\pm$ 0.05)	$0.069 \pm 0.004$ (1.75 $\pm$ 0.1)	$0.157 \pm 0.004$ (4.0 $\pm$ 0.1)

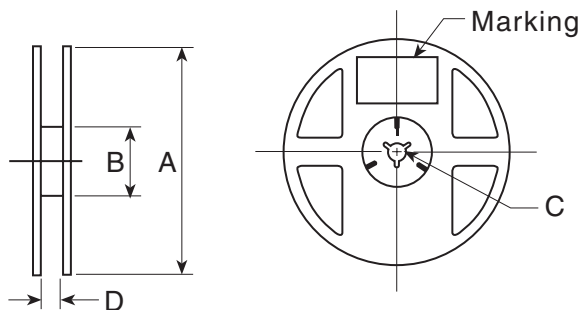
Series	G	H	J	K	L	t
2A	$0.079 \pm 0.002$ (2.0 $\pm$ 0.05)	$0.157 \pm 0.004$ (4.0 $\pm$ 0.1)	$0.059 \pm \begin{smallmatrix} 0.004 \\ 0 \\ 0 \end{smallmatrix}$ (1.5 $\pm \begin{smallmatrix} 0.1 \\ 0 \\ 0 \end{smallmatrix}$ )	$0.039 \pm \begin{smallmatrix} 0.008 \\ 0 \\ 0 \end{smallmatrix}$ (1.0 $\pm \begin{smallmatrix} 0.2 \\ 0 \\ 0 \end{smallmatrix}$ )	$0.049 \pm 0.004$ (1.25 $\pm$ 0.1)	$0.01 \pm 0.002$ (0.25 $\pm$ 0.05)
2B	$0.079 \pm 0.002$ (2.0 $\pm$ 0.05)	$0.157 \pm 0.004$ (4.0 $\pm$ 0.1)	$0.059 \pm \begin{smallmatrix} 0.004 \\ 0 \\ 0 \end{smallmatrix}$ (1.5 $\pm \begin{smallmatrix} 0.1 \\ 0 \\ 0 \end{smallmatrix}$ )	$0.039 \pm \begin{smallmatrix} 0.008 \\ 0 \\ 0 \end{smallmatrix}$ (1.0 $\pm \begin{smallmatrix} 0.2 \\ 0 \\ 0 \end{smallmatrix}$ )	$0.049 \pm 0.004$ (1.25 $\pm$ 0.1)	$0.01 \pm 0.002$ (0.25 $\pm$ 0.05)

**7. Packaging Specifications (Continued)**

**7.2 Leader and End Tape**



**7.3 Reel specifications for taping**



Dimensions in inches (mm)

Series	A	B	C	D	Material
PT72	7.01 ± 0.079 (178 ± 2)	2.36 ± 0.079 (60 ± 2)	0.512 ± 0.020 (13 ± 0.5)	0.354 ± 0.059 (9 ± 1.5)	Plastic