

# ACCURATE AXIAL TYPE THERMISTOR

## IT THERMISTOR

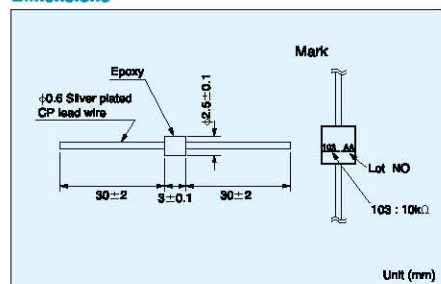
Our newly developed IT thermistors are axial leaded diode type packaged in high-density resin mold and featured strength against various operating environments.

We offer IT thermistor with  $\pm 2\%$  tolerance for a resistance value of 25°C and  $\pm 1\%$  for B value. IT thermistors are the most appropriate device for accurate temperature control below 100°C.

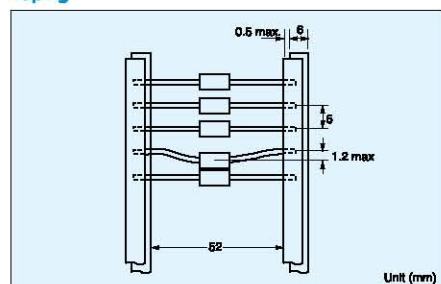
### Part number

<b>103 IT - 52</b>	52Z : Ammpack 52R : Reel
	IT thermistor
	Rated zero-power resistance at 25°C 103 : $10 \times 10^3 \Omega$

### Dimensions



### Taping



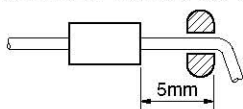
### Resistance-Temperature

Temperature (°C)	Type								Temperature (°C)	Type							
	302IT	502IT	103IT	203IT	303IT	503IT	104IT	302IT		502IT	103IT	203IT	303IT	503IT	104IT		
-50	182.1	303.4	367.7	1026	1539	3135	9584	50	1.109	1.849	4.147	7.632	11.45	17.93	32.51		
-40	93.35	155.6	204.7	540.5	810.8	1602	4572	60	0.7744	1.291	3.011	5.380	8.070	12.33	21.61		
-30	49.85	83.09	118.5	296.7	445.1	855.0	2282	70	0.5513	0.9189	2.224	3.861	5.792	8.588	14.66		
-20	27.75	46.25	71.02	169.2	253.8	474.4	1191	80	0.4000	0.6667	1.668	2.815	4.223	6.064	10.13		
-10	16.02	26.70	43.67	99.85	149.8	272.7	647.2	90	0.2951	0.4918	1.267	2.083	3.125	4.338	7.135		
0	9.541	15.90	27.70	60.87	91.31	161.9	365.0	100	0.2210	0.3683	0.9753	1.564	2.346	3.142	5.111		
10	5.876	9.793	18.07	38.21	57.32	99.13	212.5	110	0.1680	0.2800		1.190	1.785	2.302	3.720		
20	3.728	6.214	12.11	24.66	36.99	62.38	127.7	120	0.1295	0.2158		0.9159	1.374	1.705	2.746		
30	2.431	4.051	8.301	16.31	24.47	40.24	78.88	125	0.1142	0.1903		0.8067	1.210	1.472	2.371		
40	1.623	2.705	5.811	11.04	16.56	26.58	50.03										

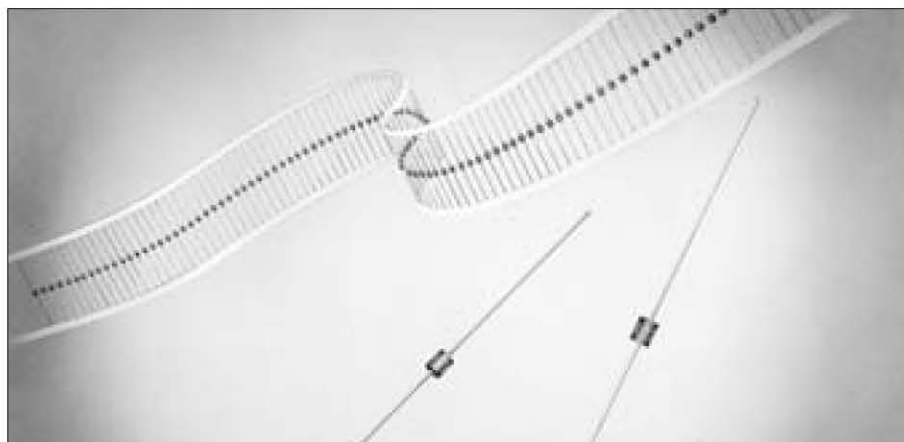
Unit (k $\Omega$ )

## CAUTION

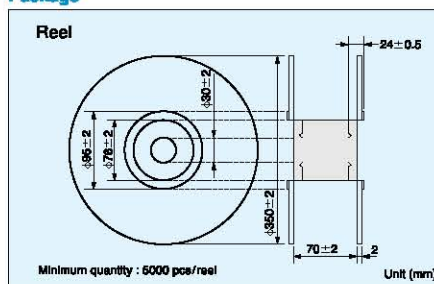
- \* Do not bend the lead wire shorter than 5mm from its root.
- \* Fix with a longnose pliers and bend the lead wire.
- \* Do not spin the thermistor when the wire is fixed.



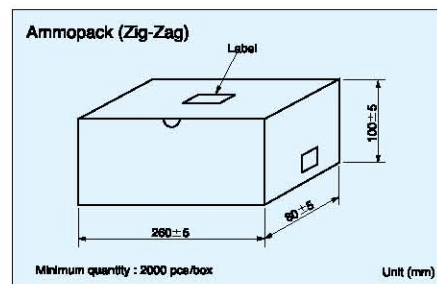
- \* Solder point must be 5mm or longer from the root of lead wire.
- \* Soldering time should be marked less than 7 sec. at the point of 340 degree C. using 50W soldering iron.



### Package



Minimum quantity : 6000 pcs/reel



Minimum quantity : 2000 pcs/box

### Specifications

Part No.	Res* <sup>1</sup>	B value* <sup>2</sup>	Dissipation factor (mW/°C) Approx.	Thermal time constant(s)* <sup>3</sup> Approx.	Rated maximum power dissipation (at 25°C)(mW)	Category temp. range(°C)
302IT	3.0k $\Omega \pm 2\%$	3860K $\pm 1\%$	3.6	13.5	18.0	-50 ~ +125
502IT	5.0k $\Omega \pm 2\%$	3860K $\pm 1\%$				-50 ~ +100
103IT	10.0k $\Omega \pm 2\%$	3435K $\pm 1\%$				-50 ~ +125
203IT	20.0k $\Omega \pm 2\%$	3760K $\pm 1\%$				
303IT	30.0k $\Omega \pm 2\%$	3760K $\pm 1\%$				
503IT	50.0k $\Omega \pm 2\%$	4055K $\pm 1\%$				
104IT	100.0k $\Omega \pm 2\%$	4390K $\pm 1\%$				

\*<sup>1</sup> Res : Rated zero-power resistance value at 25°C,  $\pm 1\%$  and 3% are also available.

\*<sup>2</sup> B value : determined by rated zero-power resistance at 25°C and 85°C.

\*<sup>3</sup> Time when thermistor temperature reaches 63.2% of the temperature difference. The value is measured in the air.