

TERMISTOR

Temperature Measurement

E/57180

Leaded Disks

K 164

Applications

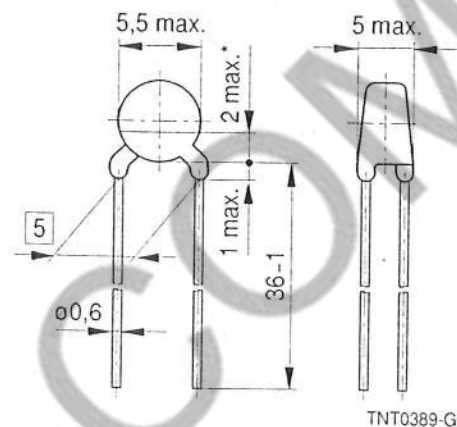
- Temperature compensation
- Temperature measurement
- Temperature control

Features

- Wide resistance range
- Cost-effective
- Lacquer-coated thermistor disk
- Tinned copper leads
- Lead spacing 5,0 mm
- Marked with resistance and tolerance

Delivery mode

Bulk (standard),
cardboard tape, reeled or in Ammo pack



*May be free of lacquer

Dimensions in mm
Approx. weight 0,4 g

Climatic category (IEC 60068-1)		55/125/21	
Max. power at 25 °C	P_{25}	450	mW
Resistance tolerance	$\Delta R_N/R_N$	$\pm 5\%$, $\pm 10\%$	
Rated temperature	T_N	25	°C
B value tolerance	$\Delta B/B$	$\pm 3\%$	
Dissipation factor (in air)	δ_{th}	approx. 7,5	mW/K
Thermal cooling time constant (in air)	τ_c	approx. 20	s
Heat capacity	C_{th}	approx. 150	mJ/K

R_{25} Ω	No. of R/T characteristic	$B_{25/100}$ K	
15	1203	2900	
22	1203	2900	
33	1203	2900	
47	1302	3000	
68	1303	3050	
100	1305	3200	
150	1305	3200	
220	1305	3200	
330	1306	3450	
470	1306	3450	

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R_{25} Ω	No. of R/T characteristic	$B_{25/100}$ K
1 k	1011	3730
1,5 k	1013	3900
2,2 k	1013	3900
3,3 k	4001	3950
4,7 k	4001	3950
6,8 k	2903	4200
10 k	2904	4300
15 k	1014	4250
22 k	1012	4300
33 k	1012	4300
47 k	4003	4450
68 k	2005	4600
100 k	2005	4600
150 k	2005	4600
220 k	2007	4830
330 k	2006	5000
470 k	2006	5000

+: J for $\Delta R_N/R_N = \pm 5\%$
K for $\Delta R_N/R_N = \pm 10\%$

Reliability data

Test	Standard	Test conditions	$\Delta R_{25}/R_{25}$ (typ.)	Remarks
Storage in dry heat	IEC 60068-2-2	Storage at upper category temperature $T: 125\text{ }^\circ\text{C}$ $t: 1000\text{ h}$	< 3 %	No visible damage
Storage in damp heat, steady state	IEC 60068-2-3	Temperature of air: $40\text{ }^\circ\text{C}$ Relative humidity of air: 93 % Duration: 21 days	< 3 %	No visible damage
Rapid temperature cycling	IEC 60068-2-14	Lower test temperature: $-55\text{ }^\circ\text{C}$ Upper test temperature: $125\text{ }^\circ\text{C}$ Number of cycles: 100	< 3 %	No visible damage
Endurance		$P_{\max}: 450\text{ mW}$ $t: 1000\text{ h}$	< 3 %	No visible damage
Long-term stability (empirical value)		Temperature: $125\text{ }^\circ\text{C}$ $t: 10\text{ }000\text{ h}$	< 5 %	No visible damage