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Applications

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PART NUMBER

Example: RND 155MF11-103J

RND 155MF11	103	J
Type	Zero Power Resistance @ 25 °C 103 = 10 kΩ	Tolerance F = ± 1% G = ± 2% H = ± 3% J = ± 5%

Electrical Characteristics

	Item	Symbol	Test conditions	Unit	Specification
1.1	Zero Power Resistance at 25 °C	R25	Ta=25±0.1 °C Test Power≤0.1mW	KΩ	10±5%
1.2	B-value	B25/50	$B = [(T_a \times T_b) / (T_b - T_a)] \times \ln(R_a / R_b)$	K	4050±10%
1.3	Thermal dissipation Coefficient	δ	In still air	mW/°C	about 4.5
1.4	Thermal time constant	τ	In still air	sec	about 20
1.5	Insulation resistance	/	1000V/DC 1min	MΩ	≥500
1.6	Operating temperature	/	/	°C	-30 °C ~ 125 °C
1.7	Maximum rated power	Pmax	/	mW	450

Reliability

	Item	Test conditions and methods	Technical requirements
2.1	Terminal strength	Pull: wire diameter(mm) pulling force (N) 0.35<d≤0.5 5,0.5<d≤0.8 10 time: 10±1 sec	No obvious damage, R25 ΔR/R≤±3%
2.2	Solderability	Temperature : 245±5 °C for 2-3sec	the coverage area should be more than 95%.
2.3	Welding heat resistant	Tin pan temperature: 260 °C ±5 °C, immersion depth is apart from the body resistance 6 mm, time 5±1 sec	R25 ΔR/R≤±3%,
2.4	Steady humidity and heat	Temp: 40 °C±2 °C, Humidity: 93±2%, Time : 500hrs	R25 ΔR/R≤±3%,
2.5	Rapid changes in temperature	-30 °C 30min→25 °C 5min→1 25 °C 30min→25 °C 5min , 5 cycles	R25 ΔR/R≤±3%
2.6	High temperature storage	Temp: 125 °C±5 °C, Time :1000hrs	R25 ΔR/R≤±5%
2.7	Low temperature storage	Temp : -30 °C, Time :1000hrs	R25 ΔR/R≤±5%

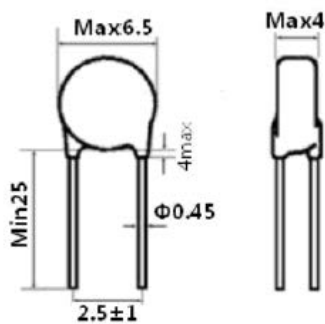
Caution

- 3.1 This product USES: Temperature measurement and control;
- 3.2 When the soldering iron welding, the welding place at least 2 mm space from coating layer and the welding temperature should be lower than 360 °C, welding time < 3 sec.
- 3.3 Storage temp : - 10 ... 40°C; storage humidity :≤75% RH;
- 3.4 Avoid air corrosion or sunlight;
- 3.5 Remake sealed storage after package opening

Certificate

- 4.1 Quality Control System Certification
ISO9001 : 2008 (01115Q20270R5M)
ISOTS16949 : 2009(0192416)
- 4.2 Environment Management System Certification
ISO14001 : 2004 (01113E20060R2M)
- 4.3 Environment Test Report RoHS
- 4.4 CQC Safe Certification (CQC13001089724) 4.5 TUV Certificate (R50245892)

Dimensions



Coating material	Wire material	Body color	Logo color
Epoxy resin	CP wire	Green	Black

R&T Table

R25=10KΩ

B25/50=4050K

T	R	T	R	T	R	T	R	T	R	T	R
-30	193.5	-4	41.904	22	11.46	48	3.797	74	1.451	100	0.6
-29	181.461	-3	39.704	23	10.948	49	3.651	75	1.402	101	0.6
-28	170.268	-2	37.633	24	10.461	50	3.511	76	1.354	102	0.582
-27	159.85	-1	35.681	25	10	51	3.377	77	1.309	103	0.564
-26	150.146	0	33.8	26	9.561	52	3.248	78	1.265	104	0.548
-25	141.1	1	32.108	27	9.144	53	3.126	79	1.222	105	0.531
-24	132.659	2	30.474	28	8.747	54	3.008	80	1.181	106	0.516
-23	124.779	3	28.932	29	8.37	55	2.896	81	1.142	107	0.5
-22	117.418	4	27.477	30	8.011	56	2.788	82	1.104	108	0.486
-21	110.537	5	26.104	31	7.67	57	2.684	83	1.068	109	0.472
-20	104.101	6	24.807	32	7.345	58	2.585	84	1.033	110	0.458
-19	98.079	7	23.583	33	7.036	59	2.49	85	1	111	0.445
-18	92.44	8	22.426	34	6.741	60	2.4	86	0.967	112	0.432
-17	87.159	9	21.333	35	6.461	61	2.312	87	0.936	113	0.419
-16	82.21	10	20.3	36	6.193	62	2.229	88	0.906	114	0.407
-15	77.571	11	19.322	37	5.938	63	2.148	89	0.877	115	0.396
-14	73.219	12	18.398	38	5.695	64	2.071	90	0.849	116	0.385
-13	69.137	13	17.523	39	5.464	65	1.997	91	0.822	117	0.374
-12	65.305	14	16.695	40	5.242	66	1.927	92	0.796	118	0.364
-11	61.707	15	15.912	41	5.031	67	1.858	93	0.771	119	0.353
-10	58.328	16	15.169	42	4.83	68	1.793	94	0.747	120	0.344
-9	55.153	17	14.466	43	4.638	69	1.73	95	0.723	121	0.334
-8	52.169	18	13.799	44	4.454	70	1.67	96	0.701	122	0.325
-7	49.363	19	13.167	45	4.279	71	1.612	97	0.679	123	0.316
-6	46.724	20	12.568	46	4.111	72	1.556	98	0.658	124	0.308
-5	44.241	21	11.999	47	3.951	73	1.503	99	0.638	125	0.3

Compensation NTC Thermistor

