功率型热敏电阻器

Power Thermistor

圣融达科技 SINCERITY TECHNOLOGY

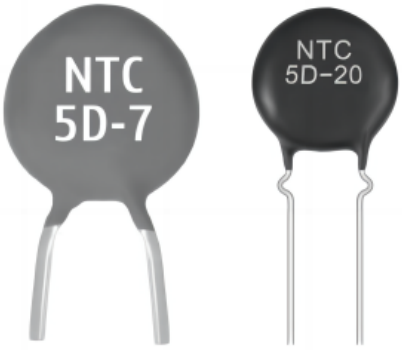
■结构Structure

主要介质：氧化锰

Main Dielectric:Manganese oxide

封装：硅树脂，酚醛树指

Encapsulation:Silicone resin, phenolic resin



■应用Application

1)转换电源，开关电源Switching power-supply, Switch power

2)UPS电源，手机充电器UPS power, Mobile phone charger

3)LED灯及其他照明灯具LED lights and other lighting

4)镇流器及备类加热器Electronic ballast amd all kinds of electric heater

5)备类显像管，显示器All kinds of RT, Display

■特性Characteristic

1)体积小，功率大Small size, large power

2)抑制浪涌电流能力强Strong capacity of suppression of inrush current

3)反应速度快Fast resporse

4)常数B值大，残余电阻小Big constant B value,Small residual resistance

5)寿命长，可靠性高Long life and higt reliability

6)系列全，应用范围宽Complete series,wide applications

■热敏电阻器技术术语 Thermistor Techincal termionology

项目Item	标准术语 Standard termionology	要求 Requirement
标称阻值 Rated resustance	在基准25下测得的零功率电阻值，也称为热敏电阻的标称电阻值。零功率电阻值RT是在规定温度下，采用引起电阻值变化相对于总的测量误差来说可以忽略不计的测量功率测得的电阻值。 In the standard 25℃ ambient conditions measured resistance values,namely NTC themistor standard resistance values.Under the total measurement error is negligible in the measurement of the power measured resistance values.	电阻值偏差允许范围内 The measured resistance within the allowable tolerance: M-±20%,L-±15%,K-±10%,J-±5%
热敏指数 B值(K) B value	B值是负温度系数热敏电阻的热敏指数，它被定义为两个温度下零功率电阻值的自然对数之差与这两个温度倒数之差的比值。 B value stands for the thermal exponent at a negative temperature coefficient. It's defined as a ratio of the balance between the natural logarithms of resistance values at zero-power to the balance between the reciprocals of the two temperatures. $B=[Ln(R_{T1})-Ln(R_{T2})]/(1/T_1-1/T_2)$ R_{T1}:温度为T_1时的零功率电阻值 $-T_1=273.15+25(℃)$ R_{T1}:the zero power resistance at temperature $T_1(K)$ R_{T2}:温度为T_2时的零功率电阻值$-T_2=273.15+50/85(℃)$ R_{T2}:the zero power resistance at temperature $T_2(K)$	符合要求 Comply requirement
耗散系数 Dissipation factor (δ)	在规定环境温度下，NTC热敏电阻耗散系数是电阻体耗散的功率变化与电阻体相应的温度变化之比，即：δ=△P/△T在工作温度范围内，随环境温度变化而有所变化。 The dissipation factor ia the ratio of the rate of xhange of the power consumption of a thermistor to the change of it's corresponding temperature. ,namely: δ=△P/△T the value of δ will change for different ambient temperatures. △P:NTC热敏电阻消耗的功率(mw) △P:NTC thermistor consumption power(mW) △T:NTC热敏电阻消耗功率△P时，电阻体相应的温度变化(K) △T:When the NTC thermistor consumption power ie P,the corresponding change at resistor temperature(K)	/
热时间常数 Thermal time constamt (ζ)	在零功率条件下，温温度突变时，热敏电阻本体的温度变化到始末两个温度差的63.2%温度时所需的时间，热时间常数ζ与NTC热敏电阻的热容量C成正比，与其耗散系数成反比，即：ζ=C/δ The thermal time constant is a 63.2% change of thermistor's body temperature form is initial temperature to end temperature under to C,the heat capacity of thermistor,and is inversely proportional to δ,the dissipation constant.that is: ζ=C/δ .	/
最大稳态电流 Max steady state current	在环境温度为25℃时允许施加在热敏电阻器上的最大连续直流电流。 The maximum allowable continuous current allowed to pass through the thermistor at 25℃.	外观无损伤 阻值变化率≤ ±25% Appearance no damage,resistance change rate≤ ±25%
残余电阻 Residual resistance	在标准测试条件下，通过热敏电阻器最大直流电流并达到热平衡时的电阻值。 At stangard test conditions,the AC resistance when the current flow through a thermistor and reach thermistor equilibrium.	/

Note:使用涉及到和极限参数有关问题请与圣融达联系

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型号规格 Part No		标称阻值 R25(Ω)	最大稳态电流 Maximum Steady state current(A)	残余电阻 Residual resistance(Ω)	耗散系数 Dissipation factor(mw/℃)	热时间常数 Thermal time constant(s)	工作温度 Operating temperature (℃)
□D-5	1.5D-5	1.5	1.5	0.16	6	20	-40~150
	3D-5	3	1.5	0.21	6	20	-40~150
	5D-5	5	1	0.35	6	20	-40~150
	8D-5	8	0.7	0.77	6	20	-40~150
	10D-5	10	0.7	0.77	6	20	-40~150
	16D-5	16	0.6	0.83	6	20	-40~150
	20D-5	20	0.5	0.99	6	20	-40~150
	200D-5	200	0.1	1.88	6	20	-40~150
□D-7	1D-7	1	2.5	0.1	9	30	-40~150
	1.5D-7	1.5	2.5	0.12	9	30	-40~150
	2.5D-7	2.5	2.5	0.16	9	30	-40~150
	3D-7	3	2.5	0.19	9	30	-40~150
	4.7D-7	4.7	2	0.25	9	30	-40~150
	5D-7	5	2	0.28	9	30	-40~150
	8D-7	8	1	0.77	9	30	-40~150
	10D-7	10	1	0.77	9	30	-40~150
	16D-7	16	0.7	1	9	30	-40~150
	20D-7	20	0.6	1.11	9	30	-40~150
	22D-7	22	0.6	1.11	9	30	-40~150
	33D-7	33	0.5	1.49	9	30	-40~150
	50D-7	50	0.4	1.92	9	30	-40~150
	100D-7	100	0.2	3.17	9	30	-40~150
	200D-7	200	0.1	5.64	9	30	-40~150
□D-9	3D-9	3	4	0.12	11	35	-40~175
	4D-9	4	3	0.16	11	35	-40~175
	5D-9	5	3	0.21	11	35	-40~175
	6D-9	6	2	0.32	11	35	-40~175
	8D-9	8	2	0.4	11	35	-40~175
	10D-9	10	2	0.46	11	35	-40~175
	12D-9	12	1	0.66	11	35	-40~175
	16D-9	16	1	0.8	11	35	-40~175

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□D-9	20D-9	20	1	0.88	11	35	-40~175
	22D-9	22	1	0.95	11	35	-40~175
	30D-9	30	1	1.06	11	35	-40~175
	33D-9	33	1	1.12	11	35	-40~175
	50D-9	50	1	1.25	11	35	-40~175
	60D-9	60	0.6	1.45	11	35	-40~175
	80D-9	80	0.8	1.72	11	35	-40~175
	120D-9	120	0.8	3.02	11	35	-40~175
	200D-9	200	0.5	4.89	11	35	-40~175
	400D-9	400	0.2	7.27	11	35	-40~175
□D-11	2.5D-11	2.5	5	0.1	14	50	-40~175
	3D-11	3	5	0.1	14	50	-40~175
	4D-11	4	4	0.1	14	50	-40~175
	5D-11	5	4	0.12	14	50	-40~175
	6D-11	6	3	0.12	14	50	-40~175
	8D-11	8	3	0.25	14	50	-40~175
	10D-11	10	3	0.28	14	50	-40~175
	12D-11	12	2	0.46	14	50	-40~175
	16D-11	16	2	0.47	14	50	-40~175
	20D-11	20	2	0.51	14	50	-40~175
	22D-11	22	2	0.56	14	50	-40~175
	30D-11	30	1.5	0.61	14	50	-40~175
	33D-11	33	1.5	0.67	14	50	-40~175
	50D-11	50	1.5	1.02	14	50	-40~175
	60D-11	60	1	1.24	14	50	-40~175
	80D-11	80	1	1.67	14	50	-40~175
□D-13	1.3D-13	1.3	7	0.1	15	68	-40~200
	1.5D-13	1.5	7	0.1	15	68	-40~200
	2.5D-13	2.5	6	0.1	15	68	-40~200
	3D-13	3	6	0.1	15	68	-40~200
	4D-13	4	5	0.1	15	68	-40~200
	5D-13	5	5	0.13	15	68	-40~200

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□D-13	6D-13	6	4	0.15	15	68	-40~200
	7D-13	7	4	0.17	15	68	-40~200
	8D-13	8	4	0.19	15	68	-40~200
	10D-13	10	4	0.21	15	68	-40~200
	12D-13	12	3	0.24	15	68	-40~200
	15D-13	15	3	0.29	15	68	-40~200
	16D-13	16	3	0.34	15	68	-40~200
	20D-13	20	3	0.37	15	68	-40~200
	30D-13	30	2	0.52	15	68	-40~200
	47D-13	47	2	0.81	15	68	-40~200
	120D-13	120	1	2.16	15	68	-40~200
□D-15	1.3D-15	1.3	8	0.07	18	86	-40~200
	1.5D-15	1.5	8	0.07	18	86	-40~200
	2.5D-15	2.5	8	0.07	18	86	-40~200
	3D-15	3	7	0.08	18	86	-40~200
	5D-15	5	6	0.11	18	86	-40~200
	6D-15	6	6	0.14	18	86	-40~200
	7D-15	7	5	0.17	18	86	-40~200
	8D-15	8	5	0.18	18	86	-40~200
	10D-15	10	5	0.19	18	86	-40~200
	12D-15	12	4	0.23	18	86	-40~200
	15D-15	15	4	0.27	18	86	-40~200
	16D-15	16	4	0.27	18	86	-40~200
	20D-15	20	4	0.29	18	86	-40~200
	30D-15	30	3.5	0.29	18	86	-40~200
	47D-15	47	3	0.68	18	86	-40~200
	120D-15	120	1	1.86	18	86	-40~200

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□D-20	0.7D-20	0.7	9	0.04	24	113	-40~200
	1.3D-20	1.3	9	0.04	24	113	-40~200
	3D-20	3	8	0.06	24	113	-40~200
	5D-20	5	7	0.09	24	113	-40~200
	6D-20	6	7	0.11	24	113	-40~200
	8D-20	8	6	0.14	24	113	-40~200
	10D-20	10	6	0.16	24	113	-40~200
	12D-20	12	5	0.18	24	113	-40~200
	16D-20	16	5	0.21	24	113	-40~200
□D-25	0.7D-25	0.7	10	0.03	30	148	-40~200
	1D-25	1	10	0.03	30	148	-40~200
	1.5D-25	1.5	10	0.03	30	148	-40~200
	2.5D-25	2.5	9	0.04	30	148	-40~200
	3D-25	3	9	0.05	30	148	-40~200
	5D-25	5	8	0.06	30	148	-40~200
	8D-25	8	7	0.09	30	148	-40~200
	10D-25	10	7	0.1	30	148	-40~200
	12D-25	12	6	0.15	30	148	-40~200
	15D-25	15	6	0.17	30	148	-40~200
	16D-25	16	6	0.19	30	148	-40~200
	20D-25	20	5	0.23	30	148	-40~200