APPROVAL SHEET

产品承认书

RRX SERIES

FUSIBLE WIRE WOUND RESISTORS

RRX 系列线绕熔断电阻器

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APPROVED BY: *Charles Chen*

Tel. +86-755-26611344 Fax: +86-755-2661948 Email: sales@thunder-resistor.com

1. PRODUCT: FUSIBLE RESISTORS

2. PART NUMBER: Part number of the metal film resistor is identified by the name, power, tolerance, packing, temperature coefficient, special type and resistance value.

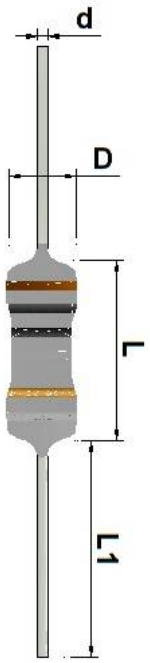
Example：

RRX	15	S	J	0	T	100
Series Name	Power rating	Size	Resistance Tolerance	Temperature Coefficient	Packing Style	Resistance Value

(1) Style: RRX series fusible wire wound resistors
(2) Power Rating: 14=1/4W;
(3) Size cods: " "= normal size; S = small size
(4) Tolerance: J=±5.0%
(5) T.C.R.: 2=±50ppm/℃; 1=±100ppm/℃; 0= no TCR test
(6) Packing type: T= tape/box;
B＝BULK/box
M= M type forming
F = F type forming
(7) Resistance Value: R22、1R0、20R、100、101

3. BAND-CODE:

COLOR	1st	2nd	Multiple	tolerance	ID
black	0	0	1		
brown	1	1	10	F(±1.0%)	
red	2	2	10^2	G(±2.0%)	
orange	3	3	10^3		
yellow	4	4	10^4		
green	5	5	10^5		
blue	6	6	10^6		
purple	7	7			
gray	8	8			
white	9	9			
golden			10^{-1}	J(±5.0%)	
silver			10^{-2}	K(±10%)	



4 ELECTRICAL CHARACTERISTICS

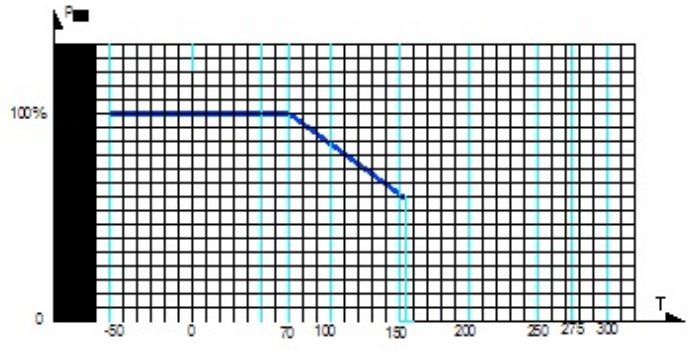
Type		RRX14	RRX15	RRX16		型号
Resistance range		0.22Ω to 22Ω	0.22Ω to 100Ω	0.22Ω to 150Ω		阻值范围
Resistance tolerance		F(±1%); J(±5%)				精度
Temperature coefficient		±50ppm/℃; ±100ppm/℃;				温度系数
Rated dissipation, P_{70}		0.25W	0.50W	1.0W		70℃ 以下额定功率
Minimum overload power to Fuse		> 1R0 = 4W; < 1R0 =5W	> 1R0 = 8W; < 1R0 =10W	16W;		最低熔断功率
Time to fuse	Max	< 30 seconds				熔断时间
Temperature range		-55℃ to 155℃				工作温度范围
Insulation voltage		300V	500V	500V		绝缘耐压
Insulation resistance		1G				绝缘阻抗
Dimension	Max. (mm)	L=6, D=2.5	L=10, D=3.5	L=12, D=5.0	Max. (mm)	尺寸
	±0.05(mm)	d=0.60	d=0.60	d=0.60	±0.05(mm)	

Type		RRX15S	RRX16S	RRX17S		型号
Resistance range		0.22Ω to 22Ω	0.22Ω to 100Ω	0.22Ω to 150Ω		阻值范围
Resistance tolerance		F(±1%); J(±5%)				精度
Temperature coefficient		±50ppm/℃; ±100ppm/℃;				温度系数
Rated dissipation, P_{70}		0.50W	1.0W	2.0W		70℃ 以下额定功率
Minimum Overload power to Fuse		> 1R0 = 8W; < 1R0 =10W	> 1R0 = 16W; < 1R0 =18W	32W;		最低熔断功率
Time to fuse	Max	< 30 seconds				熔断时间
Temperature range		-55℃ to 155℃				工作温度范围
Insulation voltage		300V	500V	500V		绝缘耐压
Insulation resistance		1G				绝缘阻抗
Dimension	Max. (mm)	L=6, D=2.5	L=10, D=3.5	L=12, D=5.0	Max. (mm)	尺寸
	±0.05(mm)	d=0.60	d=0.60	d=0.60	±0.05(mm)	

*Unless otherwise specified, all values are tested at the following condition:
Temperature: 21℃ to 25℃; Relative humidity: 45% to 60%

*Rated Continuous Working Voltage (RCWV)= $\sqrt{\text{Power Rating} \times \text{Resistance Value}}$

5. Derating curve



6. ENVIRONMENTAL CHARACTERISTICS

(1) Short Time Over Load Test

At 2.5 times of the rated voltage. (If the voltage exceeds the maximum load voltage, the maximum load voltage will be used as the rated voltage) applied for 5 seconds, the resistor should be free from defects after the resistor is released from load for about 30 minutes and the change of the resistance value should be within ±(1%+0.05Ω) as compared with the value before the test.

(2) Dielectric Withstanding Voltage

The resistor is placed on the metal V Block. Apply a Table I dielectric withstanding between the terminals connected together with the block for about 60 seconds. The resistor shall be able to withstand without breakdown or flashover.

(3) Temperature Coefficient Test

Test of resistors above room temperature 60°C at the constant temperature for over 4 to 5 minutes. Then measure the resistance. The Temperature Coefficient is calculated by the following equation and its value should be within the range of requested.

$$\text{Resistor Temperature Coefficient} = \frac{R - R_0}{R_0} \times \frac{1}{t - t_0} \times 10^6$$

R = Resistance value under the testing temperature
R_0 = Resistance value at the room temperature
t = The testing temperature
t_o = Room temperature

(4) Insulation Resistance

Apply test terminal on lead and resistor body. The test resistance should be high than 10,000 Mohm.

(5) Solderability

Immerse the specimen into the solder pot at 230±5°C for 5±0.5 seconds. At least 95% solder coverage on the termination.

(6) Resistance to Solvent

Dipping the specimen into the appropriate solvent of Methyleme Chloride for 1 minute.
No deterioration of coating and color code.

(7) Load Life in Humidity

Place the specimen in a test chamber at 40±2°C and 90~95% relative humidity. Apply the rated voltage to the specimen at the 1.5 hours on and 0.5 hour off cycle. The total length of test is 1000 hours. The change of the resistance value shall be within ±(5%+0.05Ω).

(8) Load Life Test

Placed in the constant temperature chamber of 70±3°C the resistor shall be connected to the lead wire at the point of 25mm. Length with each terminal, the resistors shall be arranged not much effected mutually by the temperature of the resistors and the excessive ventilation shall not be performed, for 90 minutes on and 30 minutes off under this condition the rated D.C. voltage is applied continuously for 1000+48/-0 hours then left at no-load for 1hour, the change of the resistance value measured at this time to the value before the test shall be within ±(5%+0.05Ω). There shall be no remarkable change in the appearance and the color code shall be legible after the test.

(9) Overload Flame Retardant

At 4 times of the rated voltage applied for 1 minute

Overload Test Voltage = $4 * \sqrt{\text{Power Rating} \times \text{Resistance Value}}$

The resistor shall be no evidence of flaming and arcing.