

SPECIFICATION

规格书

Client (客户):

Description (名称): Glass glaze resistor 玻璃釉电阻器

Model (型号): RI40 系列

Country Of Origin (产地): 中国、珠海

Date (日期): 2018 年 1 月 12 日

Material NO (料号):

客户确认

姓名			
职位			
确认日期			

广东清达电子科技有限公司

地址: 珠海市斗门区湖心路 2357 号

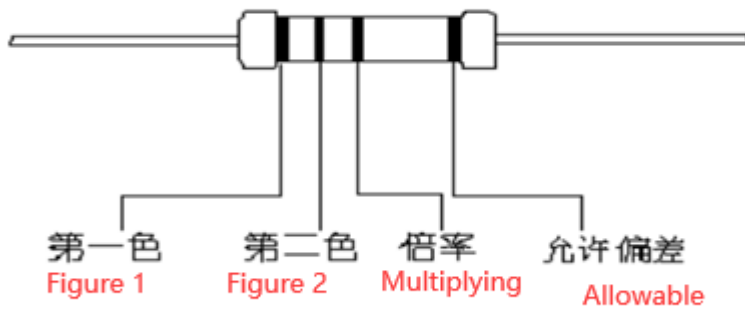
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1. Four band color standard method and the basic color code of color standard as below:

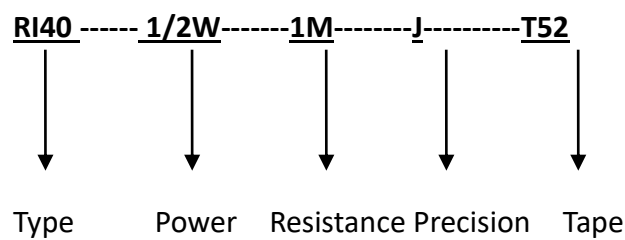
Color	Figure 1	Figure 2	Multiplying power	Allowable variation	Code of deviation
Black	0	0	10^0		
Brown	1	1	10^1	±1%	F
Red	2	2	10^2	±2%	G
Orange	3	3	10^3		
Yellow	4	4	10^4		
Green	5	5	10^5	±0.5%	D
Blue	6	6	10^6		
Purple	7	7	10^7		
Grey	8	8	10^8		
White	9	9	10^9		
Golden			10^{-1}	±5%	J
Sliver			10^{-2}	±10%	K
Neutral				±20%	M



Note: All specifications are universal four color ring marked resistance value (except customer special requirements).

The last yellow ring of 1/4W and 1/2W products is the manufacturer's code (4 lines + yellow ring).

1.2 Product Model Description:



1.3 Products meet ROHS REACH environmental protection requirements.

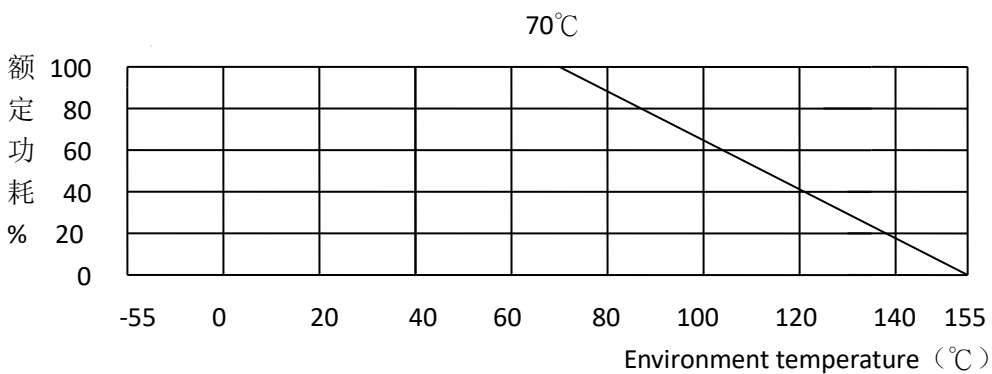
1.4 The product passes the safety certification: CQC03001004148 UL/E205990

2. Rated Value

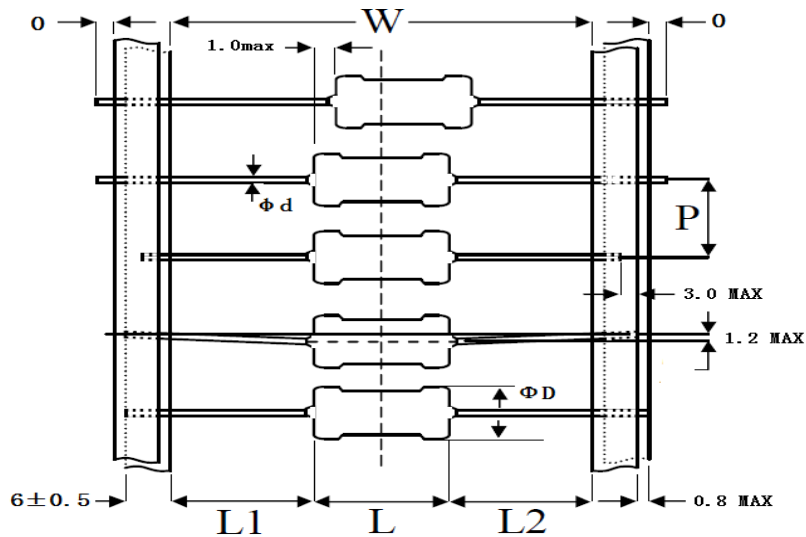
Type	Rated power	Resistance range Ω	Deviation of resistance value	Maximum service voltage	Maximum overload voltage	Isolation voltage	Remark
RI40	0.25W	10K~1000M	$\pm 1\%(F)\pm 2\%(G)$ $\pm 5\%(J)$	1000V	1500V	500V	Pink paint
	0.5W			1500V	2000V	600V	Pink paint
	1W			2000V	3000V	750V	3*9 pink paint
	1W						3010 pink paint
	1W						3011 Ash paint
	1W						3510 Ash paint
	2W			3000V	4000V		Pink paint
	3W			4000V	5000V	Ash paint	
	5W			5000V	7000V	Ash paint	

Note: It can produce 100 Ω -10K、1G-10G $\pm 10\%$, miniaturized products, TCR $\pm 50/100$ ppm and 1/6W products.

3. Power reduction curve:



4. Overall dimension (unit mm):



TYPE	Power	L±1	ΦD±0.5	Φd ±0.05	W	P±0.5	l ₁ -l ₂ (max)	Remark
RI40	0.25W	6.8	2.4	0.5	52±1	5	1.0	
	0.5W	9.8	3.5	0.55				
	1W	11.0	4.0	0.65			1.5	Φ3*9
	1W	11.5	4.0					Φ3*10
	1W	11.5	4.5		Φ3510			
	1W	12.5	4.0	0.75	62±1	10	2.0	Φ3*11
	2W	15.5	5.0					Φ4014
	2W	15.5	5.5		Φ4514			
	3W	17.5	6.0		Φ5*16			
	5W	24.5	8.0		84±2	10	2.0	2.0

5. Feature parameters

5.1 Test environment:

Unless otherwise specified, all tests and measurements should be carried out in the standard test of IEC68-1 article 3 5. in a macroclimatic condition: temperature: 15 ~ 35°C ; Relative humidity: 45% ~ 75%; Air pressure: 86 ~ 106KPa.

5.2 Appearance and Dimensions

Resistor surface SHOULD BE SMOOTH AND clean, PAINT layer without bubbles, falling off, uniform thickness, clear and correct color scale, should be marked with nominal resistance value (color scale), resistance value allowed deviation (color scale). All dimensions of resistors shall meet the values specified in the specifications.

5.3 resistance value

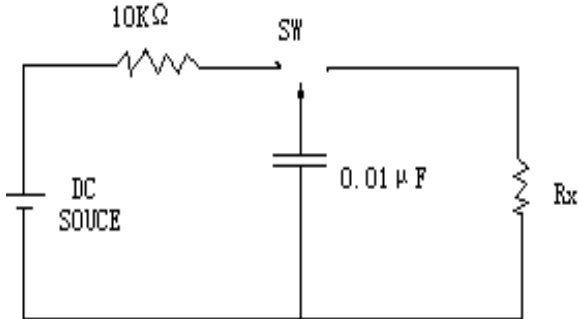
The RESISTANCE OF THE RESISTOR MEASURED IN THE ENVIRONMENT DESCRIBED IN 2.1 MUST BE COMPARED WITH ITS NOMINAL RESISTANCE, AND THE DIFFERENCE MUST be WITHIN THE ALLOWABLE deviation。

Item NO.	Characteristic	Parameter	Test conditions
5.4	overload	$\Delta R \leq \pm (1\%R + 0.05\Omega)$	2.5 times rated voltage (\leq maximum overload voltage), 5S
5.5	isolation voltage	应无击穿或飞弧	Foil wrapping method: voltage see rating table, time 60 \pm 5S
5.6	weldability	沾锡面积不小于 95%	260 \pm 10 $^{\circ}$ C、2 \pm 0.5S
5.7	temperature coefficient	TCR \leq \pm 200PPM/ $^{\circ}$ C	Higher than room temperature 100 $^{\circ}$ C, constant temperature 30 ~ 40min
5.8	Leading end strength	$\Delta R \leq \pm (1\%R + 0.05\Omega)$	Tension: 10N, 10 \pm 1S Bending: 2 x 900 Reverse: 2 x 1800
5.9	Welding heat resistant	$\Delta R \leq \pm (1\%R + 0.05\Omega)$	260 \pm 10 $^{\circ}$ C、10 \pm 1S
5.10	temperature cycle	$\Delta R \leq \pm (1\%R + 0.05\Omega)$	-55 \pm 3 $^{\circ}$ C、30min; 155 \pm 3 $^{\circ}$ C、30min 5cycles
5.11	insulation resistance	绝缘阻值 \geq 1G Ω	V block method : 500 \pm 50V、1min
5.12	Intermittent over load	$\Delta R \leq \pm (5\%R + 0.1\Omega)$	4 times rated voltage, 1S on and off for 25S, 10000 cycles
5.13	70 $^{\circ}$ C durability	$\Delta R \leq \pm (5\%R + 0.1\Omega)$	70 \pm 2 $^{\circ}$ C、 Rated voltage, on 1.5h, off 0.5h, 1000h
5.14	Wet load life	$\Delta R \leq \pm (5\%R + 0.1\Omega)$	40 \pm 2 $^{\circ}$ C、90~95%RH、 Rated voltage、1000h
5.15	Surge test	$\Delta R \leq \pm 10\%R$	Specified voltage, 2.5S charge, 2.5s discharge, 10 loops

5.15 Surge test

Connect the tested resistor R_x to the following circuit, apply voltage according to the meter, charge for 2.5S, discharge for 2.5s, 10 cycles.

Requirements: No visible damage, resistance value change $\Delta R \leq \pm 10\%R$.



Power	Resistance range Ω	Applied voltage
0.25W	$100K < R$	3KV
0.5W	$10K \leq R < 100K$	3KV
	$100K \leq R < 470K$	5KV
	$470K \leq R < 1M$	7KV
	$1M \leq R$	10KV
$> 0.5W$	$480K \leq R$	10KV

6. Packing specification

Type	Rated Power	PCS/BOX	PCS/CARTON	Remark
RI40	0.25W	4000	40000	T52
	0.5W	2000	20000	T52
	1W	1000	20000	T52
	2W	1000	10000	T62
	3W	500	5000	T62
	5W	250	2500	T84