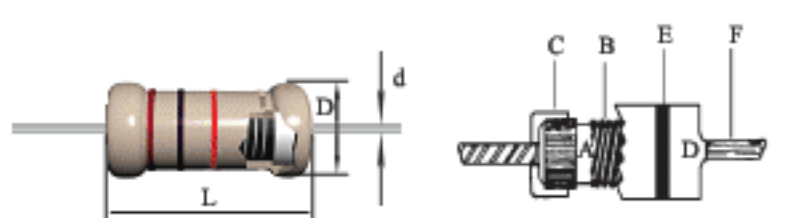


●特点 Features:

- 1、性能稳定、阻值范围广、体积小、工作温度和极限电压较高。Stable performance, extensive resistance, small size, high operating temperature and high ultimate voltage.
- 2、脉冲负荷适应性强、高频特性好。Highly adaptive pulse load, good high frequency performance.
- 3、使用环境温度 Operating ambient temperature: - 55℃ ~ +125℃
- 4、本体涂漆颜色为土黄色, 小型化涂漆颜色为棕色。The normal size coating is yellow and the small size coating is brown.
- 5、阻值误差 Resistance tolerance: ±2%、±5%、±10%。

●产品结构图 Construction Drawing:



- A、高热传导瓷芯 High heat exchanged Ceramic core.
- B、高稳定性导电膜 High stability Electric conduction film.
- C、铁帽 Iron Cap.
- D、环氧树脂涂料 Epoxy resin coating.
- E、色环 Color Ring.
- F、镀锡铜线或镀锡铜包钢线 Tinned copper lead wire or C lead wire.

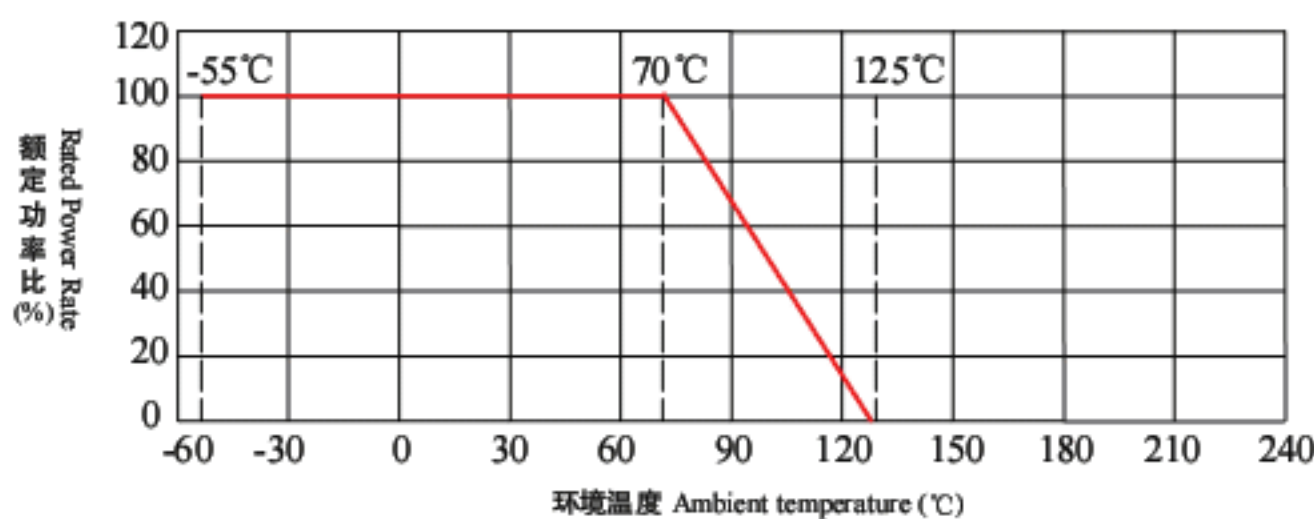
●规格尺寸及耐压性能 Dimensions and Voltage Performance:

料号 Part No.	功率 Power	阻值范围 Resistance range	尺寸 Dimensions(mm)			最大工作电压 Max. working voltage	最大负荷电压 Max. overload voltage	最高脉冲电压 Max. Pulse voltage	最高绝缘电压 Max. insulation voltage
			L±1	D±0.5	d±0.05				
CCR016 CFR016	1/8W 1/6W	0R~22M	3.5	1.7	0.41	200V	400V	500V	300V
CCR14S CFR14S	1/4WS	0R~22M	3.5	1.7	0.41	200V	400V	500V	300V
CCR014 CFR014	1/4W	0R~22M	6.0	2.3	0.45 0.52	250V	500V	750V	500V
CCR12S CFR12S	1/2WS	0R~22M	6.0	2.3	0.45 0.52	250V	500V	750V	500V
CFR012	1/2W	0R1~22M	9.0	3.2	0.58	350V	700V	1000V	700V
CFR01S	1WS	0R1~22M	9.0	3.2	0.58	350V	700V	1000V	700V
CFR01B	1W	0R1~22M	11.0	4.5	0.75	500V	1000V	1000V	1000V
CFR02S	2WS	0R1~22M	11.0	4.5	0.75	500V	1000V	1000V	1000V
CFR02B	2W	0R1~22M	15.0	5.0	0.75	500V	1000V	1000V	1000V
CFR03S	3WS	0R1~22M	15.0	5.0	0.75	500V	1000V	1000V	1000V
CFR03B	3W	0R1~22M	24.0	8.0	0.75	700V	1200V	1200V	1000V
CFR05S	5WS	0R1~22M	24.0	8.0	0.75	700V	1200V	1200V	1000V

备注Note:

- a、功率后面的“S”表示小型化。“S”means small size.
- b、额定电压 Rated voltage = $\sqrt{\text{功率Power} \times \text{阻值Resistance Value}}$
- c、当计算得出的额定电压大于最大工作电压电压, 使用时取二者较小值。If the calculated rated voltage is higher than max. working voltage, it will be got the lower value.

●额定功率递减图 Rated Power Derating Curve:



●性能测试 Performance Test:

测试项目 Test Item	测试条件 Test Condition	性能 Performance
温度系数 Temperature coefficient	在常温及常温+100℃时分别测量电阻值并计算每度的阻值变化率。Test the resistance value at normal temperature and normal temperature added 100℃, calculate per ℃ resistance value change rate.	±1000ppm
短时间过负荷 Short time overload	施加2.5倍额定电压或最高负荷电压(取较小者)5秒。 2.5 × rated voltage or Max. overload voltage (get the lower) for 5 seconds.	$\Delta R \leq \pm (1\%R_0 + 0.05\Omega)$
断续过负荷 Pulse overload	4倍额定电压或最高断续负荷电压(取较小者)测试1秒, 停止25秒, 循环10000±200次。At 4× rated voltage or Max. pulse overload voltage (get the Lower) cycle 10000±200 times (1 second on, 25 seconds off)。	$\Delta R \leq \pm (2\%R_0 + 0.05\Omega)$
耐焊接热 Resistance to soldering heat	在350±10℃锡炉中浸入2~3秒。 Immerse into the 350±10℃ tin stove for 2~3 seconds.	$\Delta R \leq \pm (1\%R_0 + 0.05\Omega)$
可焊性 Solderability	在245±3℃锡炉中浸入2~3秒。 Immerse into the 245±3℃ tin stove for 2~3 seconds.	焊锡面积覆盖率95%以上 The soldering area is over 95%
温度循环 Temperature cycling	在-55℃时放置30分钟, 然后在+25℃时放置10~15分钟, 然后再在+125℃时放置30分钟, 然后在+25℃时放置10~15分钟, 共循环5次。At -55℃ for 30 min, then at +25℃ for 10~15 min then at +125℃ for 30 min then at +25℃ for 10~15 min, total 5 cycles.	$\Delta R \leq \pm (1\%R_0 + 0.05\Omega)$
耐湿负荷寿命 Load life in humidity	在温度为40±2℃, 相对湿度为90~95%的恒温恒湿箱中, 施加额定电压或最大工作电压(取较小者)共1000小时(通1.5小时, 断0.5小时)。Overload rated voltage or Max. working voltage (get the lower) for 1000 hours (1.5 hours on and half-hour off) at the 40±2℃ and 90~95% relative humidity.	$\Delta R \leq \pm (5\%R_0 + 0.05\Omega)$
耐温负荷寿命 Load life in heat	在70±2℃恒温恒湿箱中施加额定电压或最大工作电压(取较小者)1000小时(通1.5小时, 断0.5小时)。Overload rated voltage or Max. working voltage (get the lower) for 1000 hours (1.5 hours on and half-hour off) at the 70±2℃.	$\Delta R \leq \pm (5\%R_0 + 0.05\Omega)$

●料号规则 Part No. Regulation:

产品名称 Product Name	功率 Power	精度 Tol.	特殊码 Special Code	成型 Forming	阻值 Ohm
碳膜电阻 Carbon Film Resistors	016 = 1/6W 016 = 1/8W 014 = 1/4W 14S = 1/4WS 012 = 1/2W 12S = 1/2WS 01B = 1W 01S = 1WS 02B = 2W 02S = 2WS 03S = 3WS 05S = 5WS	G = ±2% J = ±5% K = ±10%		T260 = T26 T520 = T52 T710 = T71 M001 = M F001 = F B001 = B	0R100 = 0.1Ω 0R220 = 0.22Ω 10R00 = 10Ω 10K00 = 10KΩ 1M000 = 1MΩ
CFR: 铜引线 Copper Lead Wire CCR: CP引线 CP Lead Wire					