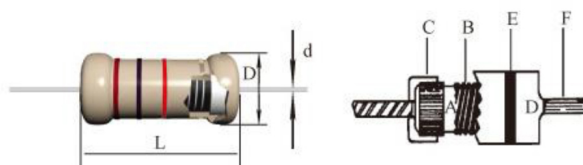




●特点 Features:

- 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: $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$.
- 4、本体涂漆颜色为土黄色, 小型化涂漆颜色为棕色。The resistor's normal size coats yellow and the mini size coats brown.
- 5、阻值误差 Resistance tolerance: $\pm 2\%$ 、 $\pm 5\%$ 、 $\pm 10\%$.

●产品结构图 Structural 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 CP 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	250V	500V	750V	500V
					0.52				
CCR12S CFR12S	1/2WS	0R~22M	6.0	2.3	0.45	250V	500V	750V	500V
					0.52				
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: a、功率后面的“S”表示小型化;

b、额定电压 = $\sqrt{\text{功率} \times \text{阻值}}$;

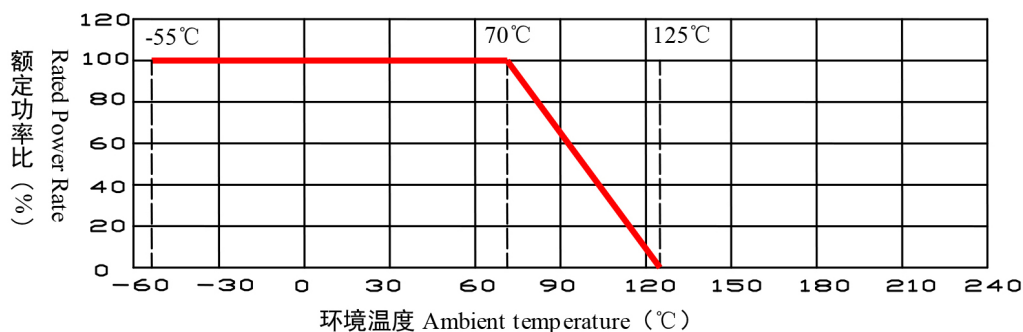
c、当计算得出的额定电压大于最大工作电压, 使用时取二者较小值。

Note: a、“S”means mini size;

b、Rated voltage $V = \sqrt{\text{Power} \times \text{Resistance Value}}$;

c、If the calculated rated voltage is higher than the 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.	$\pm 1000 \text{ppm}/^\circ\text{C}$
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。 Immerge into 350±10℃ tin stove for 2~3 seconds.	$\Delta R \leq \pm (1\%R_0 + 0.05\Omega)$
可焊性 Solderability	在 260±5℃锡炉中浸入 2~3 秒。 Immerge into 260±5℃ tin stove for 2~3 seconds.	焊锡面积覆盖 95%以上 The area of soldering 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:

CFR	01B	J	0	T520	100K0
产品名称 Product Name	功率 Power	精度 Tol.	特殊码 Special Code	成型 Forming	阻值 Ohm
碳膜固定电阻器 Carbon Film Fixed Resistors	018=1/8W 02S=2WS 016=1/6W 02B=2W 14S=1/4WS 03S=3WS 014=1/4W 03B=3W 12S=1/2WS 05S=5WS 012=1/2W 01S=1WS 01B=1W	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					