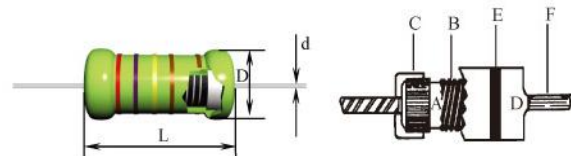




●特点 Features:

- 1、低温度系数、精度高、高频性能好。Low temperature coefficient, high precision, and good high frequency performance.
- 2、使用环境温度 Operating ambient temperature: -55℃~+155℃.
- 3、真空溅射金属皮膜, 涂层为湖绿色环氧树脂, 防水性好。Film the metal in Vacuum, the surface coating is Green resin with the good waterproof.
- 4、阻值误差 Resistance tolerance: ±1%、±5%.

●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				
CMF016 MFR016	1/6W	0R~22M	3.5	1.7	0.40	150V	300V	500V	300V
CMF14S MFR14S	1/4WS	0R~22M	3.5	1.7	0.40	150V	300V	500V	300V
CMF014 MFR014	1/4W	0R~22M	6.0	2.3	0.45 0.52	250V	500V	750V	500V
CMF12S MFR12S	1/2WS	0R1~22M	6.0	2.3	0.45 0.52	250V	500V	750V	500V
MFR012	1/2W	0R1~22M	9.0	3.2	0.58	350V	700V	1000V	700V
MFR01S	1WS	0R1~22M	9.0	3.2	0.58	350V	700V	1000V	700V
MFR01B	1W	0R1~22M	11.0	4.5	0.75	500V	1000V	1000V	1000V
MFR02S	2WS	0R1~22M	11.0	4.5	0.75	500V	1000V	1000V	1000V
MFR02B	2W	0R1~22M	15.0	5.0	0.75	500V	1000V	1000V	1000V
MFR03S	3WS	0R1~22M	15.0	5.0	0.75	500V	1000V	1000V	1000V
MFR03B	3W	0R1~22M	24.0	8.0	0.75	700V	1200V	1200V	1000V
MFR05S	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 = $\sqrt{\text{功率} \times \text{阻值}}$;

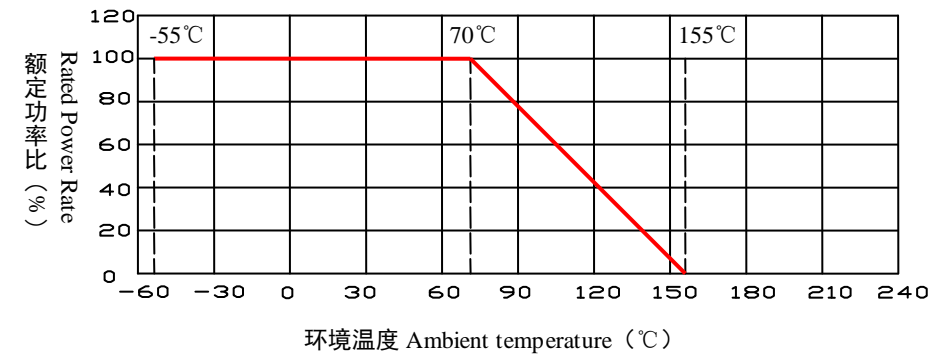
c、当计算得出的额定电压大于元件极限电压, 使用时取二者较小值。

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.	±100ppm/℃
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.	$\Delta R \leq \pm (0.5\%R_0 + 0.05\Omega)$
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).	$\Delta R \leq \pm (1\%R_0 + 0.05\Omega)$
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.	$\Delta R \leq \pm (0.5\%R_0 + 0.05\Omega)$
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.	$\Delta R \leq \pm (0.5\%R_0 + 0.05\Omega)$
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.	$\Delta R \leq \pm (2\%R_0 + 0.05\Omega)$
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℃.	$\Delta R \leq \pm (2\%R_0 + 0.05\Omega)$

●料号规则 Part No. Regulation:

MFR	01B	F	0	T520	10K00
产品种类 Product Name	功率 Power	精度 Tol.	特殊码 Special Code	成型 Forming	阻值 Ohm
金膜电阻器 Metal Film Fixed Resistors	016=1/8W 016=1/6W 14S=1/4WS 014=1/4W 12S=1/2WS 012=1/2W	F=±1% J=±5%		T260=T26 T520=T52 T710=T71	0R100=0.1Ω 0R220=0.22Ω 10R00=10Ω
MFR:铜引线 Copper lead wire	01S=1WS 01B=1W 02S=2WS 02B=2W 03S=3WS 03B=3W			M001=M F001=F B001=B	10K00=10KΩ 1M000=1MΩ
CMF:CP 引线 CP lead wire	05S=5WS				