CCR型有机实芯电阻

●产品简介Introduction

(1)CCR有机实芯电阻具有高脉冲电压承受能力，应对绕线电阻或厚膜电阻无法匹配的严酷工作要求。

(2)优秀的防潮绝缘性能，适合高可靠的电路中使用。

(3)CCR提供从1/4W、1/2W、1W、2W等多种功率产品，阻值范围从2.2Ω—22MΩ，电阻公差按照J（±5%）。

(4)特殊尺寸的产品，请联系我们的工程师，提供定制的方便。

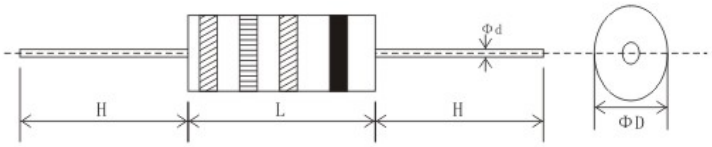
(1) CCR series of carbon composition resistors got the high pulse withstanding capability .It fully matches the pulse performance and low inductance of carbon composition ,however these wirewound or thick film alternatives can not meet.

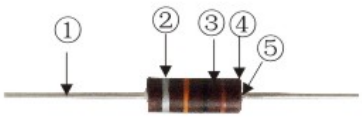
(2) Good performance in Moisture-proof insulation, suitable for high reliability circuit

(3) CCR resistor offers a power rating of 1/4W and 1/2W at 25° C and is made up of a solid rod of conductive composition material, which can be altered to produce different resistance values. With a typical resistance range of 2.2Ω ~ 22MΩ, resistance tolerance is J(±5%)

(4) Our custom solutions are designed to address your need for technical and economic success in a timely manner.Contact us with your specific needs.

●产品结构图和外形尺寸 Structure&Dimensions





①	②	③	④	⑤
引出线 Lead wire	色环 Color band	电阻材料 Material	绝缘层 Insulation coating	引线端头 End cap

规格Type	L(mm)	ΦD(mm)	H(mm)	Φd(mm)	重量Weight
1/4W	6.3±1	2.4±0.2	27±2	0.60±0.05	约220mg
1/2W	$10\pm^{0.5}_{1.5}$	3.6±0.2	27±2	0.70±0.05	约410mg
1W	$15\pm^{0.5}_{1.5}$	6.0±0.1	28±1.0	0.80±0.01	约1133mg
2W	$18\pm^{0.5}_{1.5}$	8.0±0.1	27±1.0	1.00±0.01	约2383mg

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●特点Features

(1)高脉冲电压高能量的承受能力。
(2)低电感量优良的高频特性。
(3)完全的碳晶实芯结构。
(4)产品符合无铅和RoHS 标准。

(1) High pulse withstanding and high energy capability
(2) Low inductance
(3) Solid rod carbon composition
(4) Products with Pb-free Terminations and RoHS compliant

●用途Function

(1) 高压电源电路。
(2) 高功率照明。
(3) 浪涌电流限制和保护。
(4) 闪光灯
(5) 工业控制领域

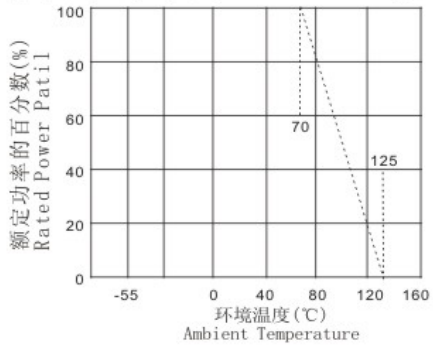
(1) High Voltage Power Supplies
(2) High Power Lighting
(3) Inrush Current Limiting,Protection (e.g. Discharge Circuits, Surge Protection)
(4) Strobe Lighting
(5) Medical defibrillators ,Welding, Automotive

●功率、阻值范围与耐电压

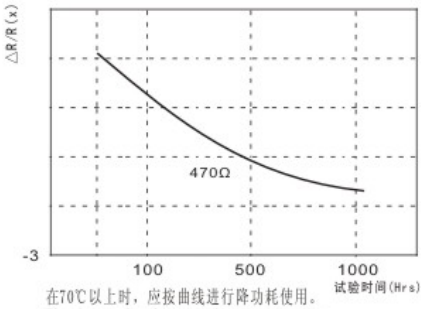
Power、Resistance range Withstand voltage

项目Description	CCR-1/4W	CCR-1/2W	CCR-1W	CCR-2W
额定功率Rated Power	1/4W	1/2W	1W	2W
额定电压Rated Voltage	√额定功率X标称阻值(d.c.或a.c.电压的有效值			
元件极限电压Maximum Voltage	400V	700V	1000V	1000V
最高过载电压 Maximun Overload Voltage	250V	350V	500V	500V
阻值精度 Nominal Resistance	E24, E12, E6	E24, E12, E6	E24, E12, E6	E24, E12, E6
允许偏差 Tolerance	J, K, M	J, K, M	J, K, M	J, K, M
阻值范围 Resistance Range	2.2Ω~12MΩ	2.2Ω~22MΩ	2.2Ω~22MΩ	2.2Ω~22MΩ
使用温度范围 Operating Temperature Range	-55~+125℃	-55~+125℃	-55~+125℃	-55~+125℃

●降功耗曲线 Derating Curve



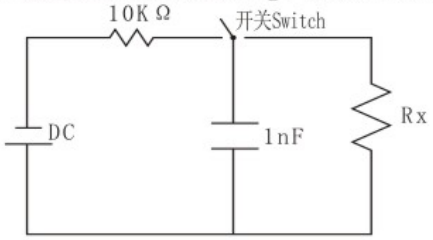
70℃耐久性 (Load Life)



在70℃以上时，应按曲线进行降功耗使用。
The derated values of dissipation for temperatures in excess of 70℃ shall be indicated by the following Curve.

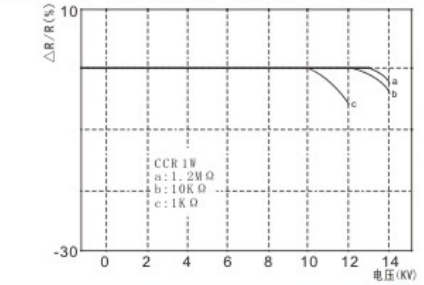
●性能图例 Performance Cutline

CCR电涌试验电路图Surge test method



12次/分钟，循环50次
12times/min,50cycles

CCR 1W电涌试验 (Surge test)



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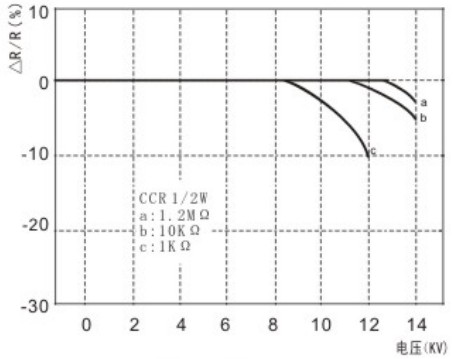
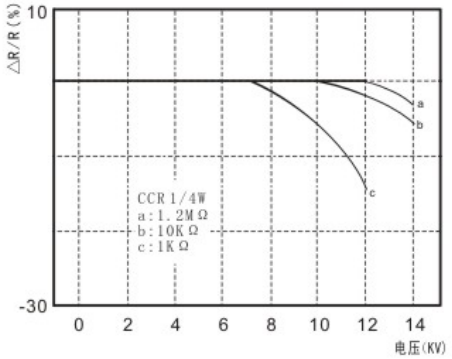
CCR 1/2W电涌试验（Surge test）



CCR 1/4W电涌试验（Surge test）



●性能PERFORMANCE

项目 Description	性能要求Performance Requirements			试验方法 Test Method
电阻温度系数 Resistance Temperature Coefficient	阻值范围 Resistance Range	阻值允许变化率(%) Maximun Resistance Value Range		试验温度 Test Temperature +20℃/-55℃/+20℃/+100℃/+20℃
		-55~+20℃	+20~+100℃	
	≤1KΩ	±6.5	±6.5	
	1.1KΩ~10K	±10	±8.0	
	11KΩ~100KΩ	±13	±10.0	
	110KΩ~1MΩ	±15	±13.0	
	1.1MΩ~10MΩ	±20	±19.5	
	≥11MΩ	±25	±20	
电压系数 Voltage Coefficient	±0.035%/V			以10%和100%的额定电压或元件极限电压（取较低者）测量阻值 use 10% and 100% rated voltage or maximum voltage(the lower) to test resistance value
短时间过截 Short-time Overload	无可见损伤,标志清楚△R≤±2.5%R No visible damage, Markings legible			施加电压应为2.5倍额定电压或最高过载电压（取小者）时间5秒 2.5 times rated voltage or maximum overload voltage(the lower)5seconds
绝缘电阻 Insulation Resistance	≥1000MΩ			测量电压500V 1分钟 testing voltage 500v 1 minute
耐电压 Withstand Voltage	无击穿或飞弧 (No flasheover or breakdown)			施加交流电压其峰值为元件极限电压的2倍，时间1分钟 2 tims maximum voltage 1 minute
引出端强度 Terminal strength 拉力 Pullde	无可见损伤△R≤±2%R No visible damage			Φd 0.6mm:负荷10N 10s ≥0.8mm:负荷20N 10s Φd 0.6mm:Load 10N 10s ≥0.8mm:Load 20N 10s
弯曲 Winded				Φd 0.6mm:负荷10N 90° ≥0.8mm:负荷20N 10s Φd 0.6mm:Load 10N 90° ≥0.8mm:Load 20N 10s
扭转 Twised				3600地看到在相反的方向上 3600 in opposite direction
振动 Resistance to Vibration	无可见损伤△R≤±1% No visible damage			10~500Hz三维方向上各2小时 3 direction 2 hours each
耐焊接热 Solder-heat Rsistance	无可见损伤，标志清楚△R≤±5%R Marks legible, no visible damage			350℃距根部4mm 3秒钟 4mm from the body, 3 seconds
可焊性 Solderbility	表面应覆盖有新的连续焊锡层，可焊面积必须大于95%，且针孔、虚焊等缺陷不得集中在一起 At least 95% of the dipping surface must be covered by new solder, no flaws gathered.			235℃距根部2mm 2秒钟 2mm from the body, 2 seconds
温度快速变化 Temperature Cycle	无可见损伤△R≤±2%R No visible damage			-55/+85℃连续循环5次 for 5 cycles
稳态湿热 Humidity	无可见损伤△R≤±10%R No visible damage			40℃ 95%RH 240小时 240 hours
70℃耐久性 Load Life	无可见损伤，标志清楚△R≤±10%R No visible damage, marks legible			施加电压应为额定电压或元件极限电压1.5小时通0.5小时断70℃1000小时 rated voltage or maximum voltage, 1.5 hours on, 0.5 hours off, 70 centigrade temperature 1000 hours

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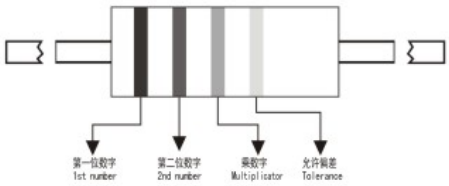
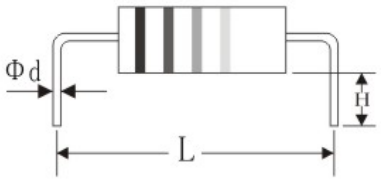
●色码表示 Color for each numeral

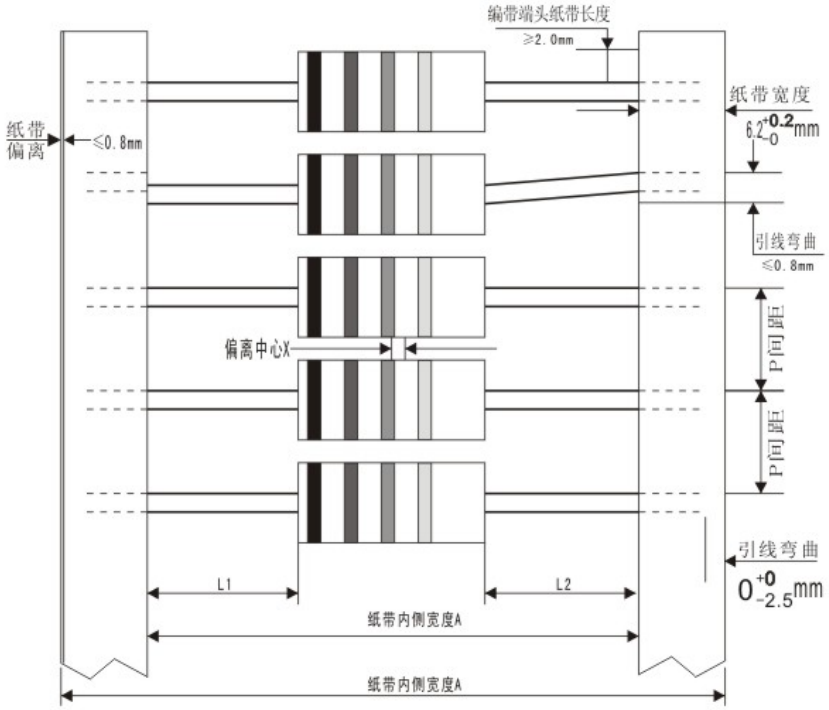


●引线加工品（Horizontal Forming）



尺寸(Dimension)(mm)		
L±0.1	H±0.1	Φd±0.02
15.0	5.0	0.7

编带产品（Axial Lead Taping
电阻器加工品（Taping&Forming）



编带规格 Specification	T-52
W	52±1
A	64.5±0.5
P	5.08±0.38
50P	254±2
|L1-L2|	≤1.0
X	≤0.5
单位（unit）:mm	

●料号组成 Ordering information

CCR	01B	J	0	T520	100K0	R
产品名称	功率	精度	特殊码	成型	阻值	包装方式
CCR有机实芯电阻	012=1/2W 01B=1W 02B=2W	F=±2% G=±2% J=±5% K=±10%		T260=T26 T520=T52 T710=T71 M001=M F001=F B001=B	1K0=1KΩ 100K0=100KΩ	