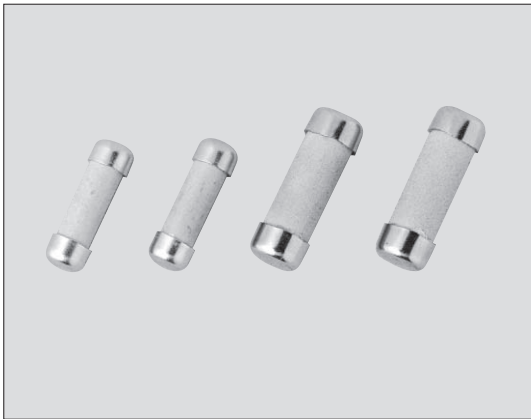


NOISE SUPPRESSOR



CPCN 陶瓷电阻器 Ceramic Resistors



外观: 无涂装 No coating

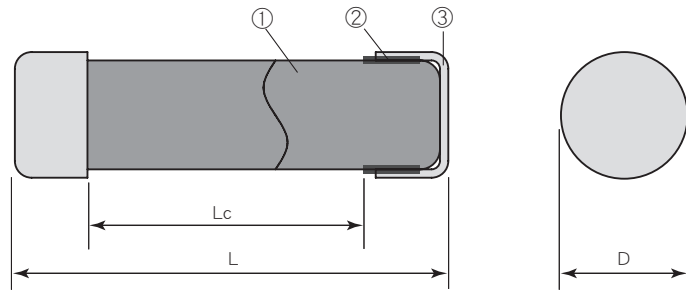
特点 Features

- 在防止引擎点火电路的杂音上, 性能优异。
- 对短路具有高信赖性。
- 符合欧盟RoHS。
- Excellent noise prevention of engine ignition circuit system.
- High reliability against disconnection.
- Products meet EU-RoHS requirements.

参考标准 Reference Standards

IEC 60115-1
JIS C 5201-1

结构图 Construction



| | |
|--------|-----------------|
| ① 电阻 | Resistor |
| ② 内部电极 | Inner electrode |
| ③ 电极帽 | Electrode cap |

外形尺寸 Dimensions

| 型号 Type | 尺寸 Dimensions (mm) | | | 端子镀层种类 Cap Plating Type | Weight (g) (1000pcs) |
|------------|--------------------|----------|----------|----------------------------|-------------------------|
| | L | Lc | D | | |
| CPCN1/2 | 10.7±0.5 | 5.4Min. | 3.5±0.1 | Ni | 330 |
| CPCN1 | 16.0±0.6 | 9.6Min. | 4.75±0.3 | | 810 |
| CPCN2N | 18.3±0.6 | 11.5Min. | | | 920 |
| CPCN3 | | 10.0Min. | 7.2±0.3 | Sn | 2350 |

品名构成 Type Designation

实例 Example

| 品种 Product Code | 额定功率记号 Power Rating Symbol | 公称电阻值 Nominal Resistance | 阻值允许偏差 Resistance Tolerance |
|--------------------|---|-----------------------------|--------------------------------|
| CPCN | 1/2 | 502 | M |
| | 1/2: 0.5W 1: 1.0W 2N: 1.5W 3: 2.0W | 3 digits | M: ±20% |

欲知关于此产品含有的环境负荷物质详情(除EU-RoHS以外), 请与我们联系。

Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS.

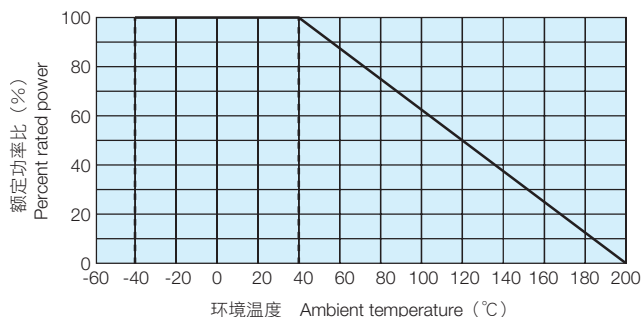
额定值 Ratings

| 型号 Type | 额定功率 Power Rating | 公称电阻值 Nominal Resistance | 阻值允许偏差 Resistance Tolerance | 电阻温度系数 T.C.R. (×10 ⁻⁶ /K) | 最高使用电压 Max. Working Voltage | 最高过载电压 Max. Overload Voltage | 额定环境温度 Rated Ambient Temperature | 使用温度范围 Operating Temp. Range | 包装数量 Packaging Q'ty/Bag (pcs) |
|------------|----------------------|-----------------------------|--------------------------------|--|--------------------------------|---------------------------------|-------------------------------------|---------------------------------|----------------------------------|
| CPCN1/2 | 0.5W | 1kΩ, 5kΩ | M: ±20% | -1200±300 | 86V | 215V | +40°C | -40°C~+200°C | 1,000 |
| CPCN1 | 1.0W | 10kΩ, 15kΩ | | | 122V | 305V | | | 1,000 |
| CPCN2N | 1.5W | 1kΩ, 2kΩ, 5kΩ, 10kΩ, 15kΩ | | | 150V | 375V | | | 1,000 |
| CPCN3 | 2.0W | 15kΩ | | | 173V | 432V | | | 500 |

额定电压是 $\sqrt{\text{额定功率} \times \text{公称电阻值}}$ 所算出的值或表中最高使用电压两者中小的值为额定电压。

Rated voltage = $\sqrt{\text{Power Rating} \times \text{Resistance value}}$ or Max. working voltage, whichever is lower.

■ 负荷减轻特性曲线 Derating Curve



在环境温度40℃以上使用时，应按照上图负荷减轻特性曲线，减小额定功率。

For resistors operated at the ambient temperature of 40°C or higher, the power rating shall be derated in accordance with the above derating curve.

■ 性能 Performance

| 试验项目 Test Items | 标准值 Performance Requirements $\Delta R \pm (\% + 0.05 \Omega)$ | | 试验方法 Test Methods | | | |
|---|---|----------------|---|-------------------------|--------------------|--------------|
| | 保证值 Limit | 代表值 Typical | | | | |
| 电阻值 Resistance | 在规定的允许偏差内 Within specified tolerance | - | 25°C 电阻值 Resistance 测定电压 Measuring voltage 1kΩ, 5kΩ 10V 10kΩ, 15kΩ 30V | | | |
| 电阻温度系数 T.C.R. | $-1200 \pm 300 \times 10^{-6}/K$ | - | +25°C/-40°C and +25°C/+125°C | | | |
| 电压系数 Voltage coefficient | 0~-0.2%/V | - | 额定电压以及额定电压×10% Rated voltage and rated voltage ×10% | | | |
| 过载(短时间) Overload (Short time) | 2 | 0.3 | 额定电压的2.5倍或者最高过载电压，取其小者施加5秒 Rated voltage ×2.5 or Max. overload vol., whichever is lower, for 5s | | | |
| 高压脉冲寿命 Load life at high voltage pulse | 30 | - | 对试验电路(参照JIS D5111)连续施加250小时的脉冲。 CPCN1/2, CPCN1: 在硅油中 Continuous 250h high voltage pulse on the test circuit (Refer to JIS D 5111) CPCN1/2, CPCN1: In Silicon oil | | | |
| 电阻强度 Resistor body strength | 电阻不应当出现龟裂、折损等情况 No mechanical damage | - | 品种 (Type) | 支持间隔(Holding distance) | 保持时间 (Duration) | 负荷 (Load) |
| | | | CPCN1/2 | 5.0±0.2mm | 10s | 98N (10kgf) |
| | | | CPCN1 | 9.0±0.3mm | | |
| | | | CPCN2N | 12.3±0.3mm | | 490N (50kgf) |
| | | | CPCN3 | | | |
| 温度突变 Rapid change of temperature | 5 | 5 | -55°C (15min.) / +155°C (15min.) 500 cycles | | | |
| 耐湿负荷 Moisture resistance | 5 | 0.9 | 40°C±2°C, 90%~95%RH, 1000h 1.5小时ON、0.5小时OFF的周期 1.5h ON/0.5h OFF cycle | | | |
| 额定负荷 Load life | 5 | 0.7 | 40°C±2°C, 1000h 1.5小时ON、0.5小时OFF的周期 1.5h ON/0.5h OFF cycle | | | |
| 低温放置 Low temperature exposure | 5 | 0.7 | -40°C, 24h | | | |
| 高温放置 High temperature exposure | 5 | 2.0 | +200°C, 1000h | | | |

试验前后电阻值的测定须在室温温差1℃范围的条件下进行。

The resistance measurement before and after the test should be performed at a difference of ±1°C of room temp.

■ 使用注意事项 Precautions for Use

- 在容易发生雷击导致的浪涌的环境下，电阻器直接用于断路的环境下，电阻器直接连接输入、输出和地线的情况下，或者在施加脉冲的电路中所使用的电阻器，浪涌和脉冲有可能损坏电阻器。针对可能的浪涌和脉冲，有必要假定最坏的情况，在进行十分仔细检验的基础上，选定电阻器。
- 请设计接收端子和安装方法以便在安装时电阻器不会受到过大的压力。尤其是当电阻器一边被固定时，即使较小的力也可能使电阻器折损。在组装有一边已经固定好的电阻器时，请不要再接入外部压力。
- Under the environment where surge like thunders etc. is apt to happen, the resistors used for open circuit, resistors connected directly to input, output or ground, and resistors used for the circuit pulse applied to, may be destructed by surge or pulse. Therefore, the resistors need to be selected after sufficient check on the supposition of the worst condition against possible surge and pulse.
- Please design the receiving terminal and the mounting method so that big power is not applied to the resistor when you assemble the resistor. Especially, comparatively weak power might be broken in the condition that the one side of the resistor is fixed. Please do not add the outside power when you assemble the resistor with the one side of the resistor fixed.