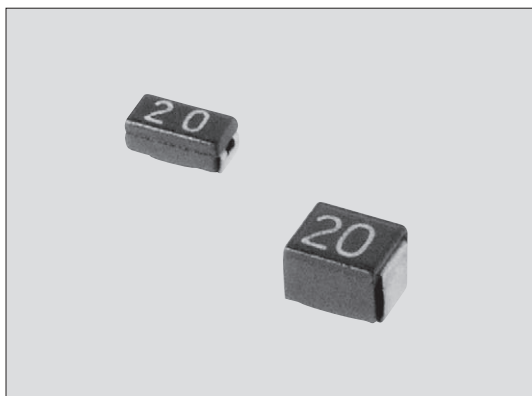


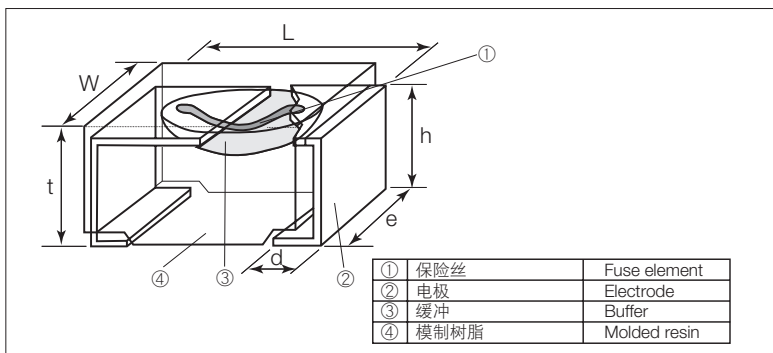
MICRO FUSE



CCP 电路保护用元件 Chip Circuit Protectors



■ 结构图 Construction



■ 外形尺寸 Dimensions

型号 Type (Inch Size Code)	尺寸 Dimensions (mm)						Weight (g) (1000pcs)
	L ±0.2	W ±0.2	t ±0.2	h ±0.1	e ±0.1	d ±0.1	
2B (1206)	3.2	1.6	1.2	0.8	1.2	0.6	13.0
2E (1210)	3.2	2.5	2.2	1.9	1.7	0.5	38.5

■ 品名构成 Type Designation

实例 Example

CCP	2E	20		T	TE
品种 Product Code	尺寸 Size	定格 Rating	熔断倍率 Fusing Magnification	端子表面材质 Terminal Surface Material	二次加工 Taping
	2B:3.2x1.6mm 2E:3.2x2.5mm		Nil: 200%(2B), 250%(2E) H: 200%(2E)	T: Sn (Nil: Sn/Pb)	TE:4mm pitch plastic embossed BK: Bulk

端子表面材质，以无铅品为准。
欲知关于此产品含有的环境有害物质详情（除EU-RoHS以外），请与我们联系。
编带细节请参考卷末附录C。
The terminal surface material lead free is standard.
Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS.
For further information on taping, please refer to APPENDIX C on the back pages.

外观颜色：黑色 Body color: Black

■ 特点 Features

- 电流过大时，可以迅速地，无烟无热地切断电路。
- 使用了金属电极，端子强度出色，焊锡附着性优异。
- 外装模制成形，尺寸精度高，安装性能优异。
- 对应回流焊和波峰焊。
- 端子无铅品，符合欧盟RoHS。
- Immediate cutting off against excessive current of circuit without generating heat and fuming.
- Excellent terminal strength and solderability due to metal electrode.
- Excellent dimension accuracy, mountability and shock-resistance due to plastic molding.
- Applicable to both reflow and flow solderings.
- Products with lead free termination meet EU-RoHS requirements.

■ 取得规格 Approvals Awarded

UL248.14 认定文件号 File No. E131375
c-UL (CSA) C22.2 No.248.14认定文件号 File No. E131375

■ 额定值 Ratings

型号 Type	额定电流 Rated Current	熔断电流 Fusing Current	熔断时间 Fusing Time	内部电阻值 Internal R. (mΩ) Max.	额定电压 Rated Voltage	额定环境温度 Rated Ambient Temp.	使用温度范围 Operating Temperature Range	编带和包装数/卷 Taping & Q'ty/Reel (pcs)
CCP2B15	0.75A	1.5A	熔断电流通电时，熔断时间1秒以内 Fusing current Max. 1s.	150	24V (40V/76V) *	+70°C	-40°C~+125°C	3,000
CCP2B20	1.00A	2.0A		100				
CCP2B25	1.25A	2.5A		75				
CCP2B30	1.50A	3.0A		60				
CCP2B35	1.75A	3.5A		50				
CCP2B40	2.00A	4.0A		45				
CCP2B50	2.50A	5.0A		35				
CCP2B63	3.15A	6.3A		23				
CCP2B80	4.00A	8.0A		19				
CCP2B100	5.00A	10.0A		15				
CCP2E10	0.4A	1.0A	熔断电流通电时，熔断时间1秒以内 Fusing current Max. 1s.	200	72V	+70°C	-40°C~+125°C	2,000
CCP2E13	0.52A	1.3A		170				
CCP2E15	0.6A	1.5A		150				
CCP2E20	0.8A	2.0A		100				
CCP2E25	1.0A	2.5A		75				
CCP2E30	1.2A	3.0A		60				
CCP2E35	1.4A	3.5A		50				
CCP2E38	1.5A	3.8A		48				
CCP2E40	1.6A	4.0A		45				
CCP2E45	1.8A	4.5A		40				
CCP2E50	2.0A	5.0A	熔断电流通电时，熔断时间1秒以内 Fusing current Max. 1s.	35	72V	+70°C	-40°C~+125°C	2,000
CCP2E63	2.5A	6.25A		23				
CCP2E100	4.00A	10.0A		15				
CCP2E10H	0.50A	1.0A		200				
CCP2E13H	0.65A	1.3A		170				
CCP2E15H	0.75A	1.5A		150				
CCP2E20H	1.00A	2.0A		100				
CCP2E25H	1.25A	2.5A		75				
CCP2E30H	1.50A	3.0A		60				
CCP2E35H	1.75A	3.5A		50				
CCP2E38H	1.90A	3.8A	熔断电流通电时，熔断时间1秒以内 Fusing current Max. 1s.	48	72V	+70°C	-40°C~+125°C	2,000
CCP2E40H	2.00A	4.0A		45				
CCP2E45H	2.25A	4.5A		40				
CCP2E50H	2.50A	5.0A		35				
CCP2E63H	3.15A	6.3A		23				

※也可提供高额定电压的产品（76V: 0.75A~3.15A、40V: 4A~5A），请与我们联系。 ※High rated voltage (76V: 0.75A~3.15A, 40V: 4A~5A) is also available. Please consult with us.

本样本手册中记载的产品规格如有变更，恕不一一奉告。订购及使用之前，请仔细确认规格表的内容。
用于车载设备、医疗设备、航空设备以及其他涉及人身安全、或可能引起重大损失的设备上时，请务必事先与我司联系。这些产品在这类用途中出现故障或失灵可能导致人身事故或严重损坏。
Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.
Contact our sales representatives before you use our products for applications including automobiles, medical equipment and aerospace equipment.
Malfunction or failure of the products in such applications may cause loss of human life or serious damage.

■ 降低额定值 Derating

● 稳恒电流

稳恒电流在重复脉冲时，稳恒电流波形的峰值是恒稳电流值。

● 降低温度

在环境温度70℃以上使用时，需要校正温度，应考虑右图的降低系数。

● Stationary current

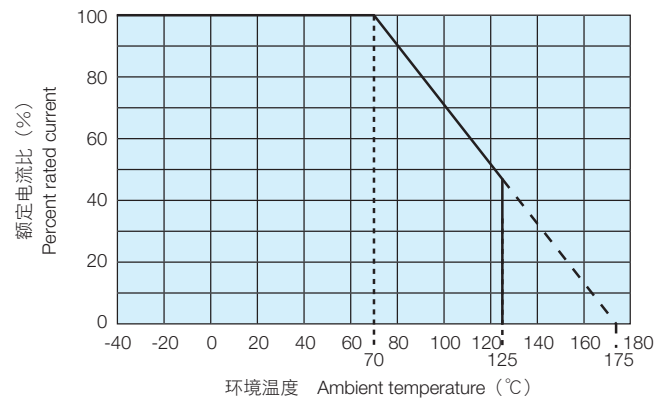
Regard the peak of stationary current waveform as stationary current value when the stationary current is repeated pulse.

● Temperature Derating

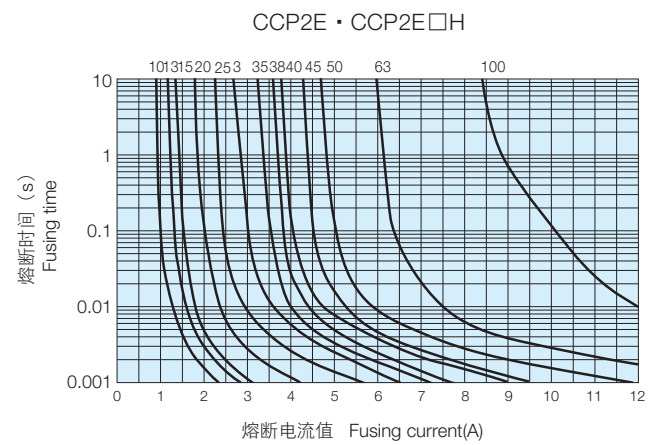
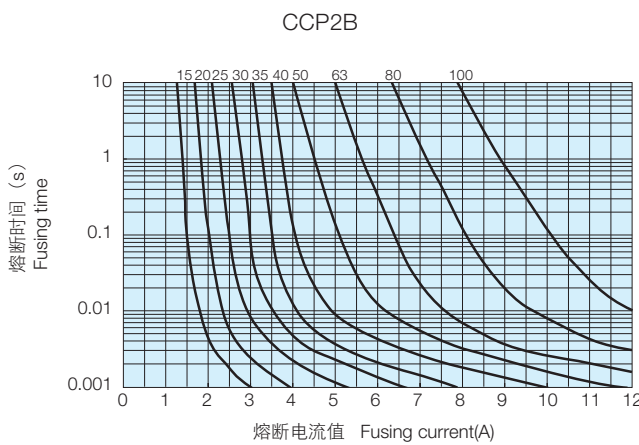
Rated current needs to be derated if used at an ambient temperature of 70℃ or more. Refer to the derating coefficient on the right figure.

■ 根据环境温度减轻额定电流

Rated Current Derating Rate



■ 熔断特性 Fusing Characteristics (标准熔断时间 Average Fusing Time)



■ 性能 Performance

试验项目 Test Items	标准值 Performance Requirements ΔR±%		试验方法 Test Methods
	保证值 Limit	代表值 Typical	
熔断特性 Fusing characteristics	1秒以内 Within 1s	-	CCP2B: 200% of rated current shall be carried. CCP2E: 250% of rated current shall be carried. CCP2E□H: 200% of rated current shall be carried.
开路电压 Open circuit voltage	没有发烟、发火、破裂等异常情况。 No fusing, flaming, explosion.	-	熔断后，在电极间施以直流电压。 Apply DC voltage between the termination after fusing. CCP2B: 24V CCP2E, CCP2E□H: 72V
残留电阻值 Residual resistance	10KΩ以上 10kΩ or more	-	熔断后的直流电阻值。 Measure DC resistance after fusing
电极强度 Bending test	应当没有电极剥离、导通断线等异常。 No mechanical damages.	-	支持点间隔90mm。弯曲宽度10mm，一次。 Distance between holding points 90mm, Bending width 10mm, 1time.
耐焊接热 Resistance to soldering heat	10	2.5	260℃±5℃, 10s±0.5s, 2 cycles.
焊接性 Solderability	95%以上为新的焊接覆盖。 95% coverage min.	-	230℃±5℃, 3s±0.5s
通电寿命 Load life	10	3	70℃±3℃, 1000h, 额定电流, 1.5小时ON/0.5小时OFF的周期。 Rated current, 1.5h ON/0.5h OFF cycle
耐湿通电寿命 Load life moisture	10	1.5	40℃±2℃, 90%~95%RH, 1000h, 额定电流, 1.5小时ON/0.5小时OFF的周期。 Rated current, 1.5h ON/0.5h OFF cycle
温度突变 Rapid change of temperature	10	4	-40℃ (30min) / +125℃ (30min) 10 cycles
耐溶剂性 Resistance to solvent	没有标识消失等外观异常。 No evidence of damage to protective coating and marking.	-	依据MIL-STD-202F Conforming to MIL-STD-202F

■ 使用注意事项 Precautions for Use

- 对于4A和5A类型的高额定电流产品而言，产品的自身发热温度会升高。因此，请充分考虑安装条件，把产品表面的上升温度控制在70℃以下。
- 有离子性杂质附着在产品上的话，耐湿性，耐腐蚀性等会有恶化的情况。如果离子性物质附着，请进行充分的冲洗。
- 选定保险丝时，请与本目录内的「保险丝的使用注意事项」一起确认。
- For type 4A and 5A, heating value from the products is high. Please consider the mounting condition and keep the surface temperature under 70℃ when you use the products.
- Ionic impurities may deteriorate resistances to humidity and corrosion of the product. Please wash the product thoroughly when ionic substances are to be attached.
- When you select fuse product, please make sure to confirm "Precautions for Use of Fusing Components" in this catalogue and ask KOA sales.