

CCP Chip Circuit Protectors



Body color : Black

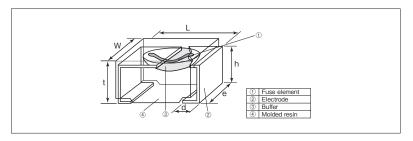
Features

- Immediate cutting off against excessive current of circuit without generating heat and fuming.
- Excellent terminal strength and solderability due to metal
- Excellent dimension accuracy, mountability and shockresistance due to plastic molding.
- Applicable to both reflow and flow solderings.
- \bullet Products with lead free termination meet EU-RoHS requirements.

■Approvals Awarded

UL 248.14 File No. E131375 c-UL (CSA) C22.2 No. 248.14 File No. E131375

■Construction

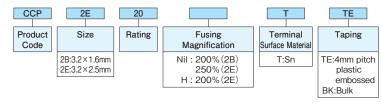


Dimensions

Type		Weight (g)					
(Inch Size Code)	L±0.2	W±0.2	t±0.2	h±0.1	e±0.1	d±0.1	(1000pcs)
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

■Type Designation

Example



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.

■Ratings

Туре	Rated Current	Fusing Current	Fusing Time	Internal R. Max. (mΩ)	Rated Voltage	Rated Ambient Temp.	Operating Temp. Range	Taping & Q'ty/Reel (pcs) TE
CCP2B15	0.75A	1.5A	Time	150	voitage	Ambient Temp.	nange	I E
CCP2B20	1.00A	2.0A	Fusing current	100	24V	+70°C	−40°C∼+125°C	3,000
CCP2B25	1.25A	2.5A		75				
CCP2B30	1.50A	3.0A		60				
CCP2B35	1.75A	3.5A		50				
CCP2B40	2.00A	4.0A		45	(40V/76V)*			
CCP2B50	2.50A	5.0A	Max. 1s	35	(107,707)			
CCP2B63	3.15A	6.3A	1	23				
CCP2B80	4.00A	8.0A		19				
CCP2B100	5.00A	10.0A	1	15				
CCP2E10	0.4A	1.0A		200				
CCP2E13	0.52A	1.3A	1	170	72V	+70°C	−40°C∼+125°C	2,000
CCP2E15	0.6A	1.5A	Fusing current	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	Max. 1s	48				
CCP2E40	1.6A	4.0A		45				
CCP2E45	1.8A	4.5A		40				
CCP2E50	2.0A	5.0A		35				
CCP2E63	2.5A	6.25A		23				
CCP2E100	4.00A	10.0A		15				
CCP2E10H	0.50A	1.0A	Fusing current Max. 1s	200	- 72V	+70°C	−40°C∼+125°C	2,000
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		48				
CCP2E40H	2.00A	4.0A		45				
CCP2E45H	2.25A	4.5A	1	40				
CCP2E50H	2.50A	5.0A	-	35				
CCP2E63H	3.15A	6.3A		23				

 $\rm \%High\ rated\ voltage\ (76V:0.75A\sim3.15A,\ 40V:4A\sim5A)$ is also available. Please consult with us.

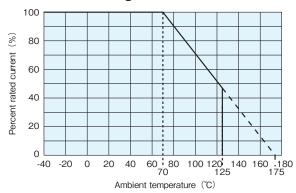


Derating

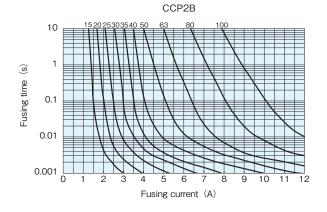
- Stationary current
- Regard the peak of stationary current waveform as stationary current value when the stationary current is repeated pulse.
- Temperature Derating

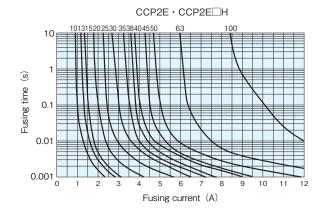
Rated current needs to be derated if used at an ambient tempera-ture of $70^\circ\!\mathrm{C}$ or higher. Refer to the derating coefficient on the right figure.

■Rated Current Derating Rate



■ Fusing Characteristics (Average Fusing Characteristics)





Performance

Test Items	Performance Requirements ΔR±%		Test Methods		
	Limit	Typical			
Fusing characteristics	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.		
Open circuit voltage	No fusing, flaming, explosion.	_	Apply DC voltage between the termination after fusing. CCP2B: 24V CCP2E, CCP2E□H: 72V		
Residual resistance	10kΩ or more	_	Measure DC resistance after fusing		
Bending test	No mechanical damages.	_	Distance between holding points 90mm, bending width 10mm, 1time.		
Resistance to soldering heat	10	2.5	260°C±5°C, 10s±0.5s, 2 cycles.		
Solderability	95% coverage min.	_	230°C±5°C, 3s±0.5s		
Load life	10	3	70°C±3°C, 1000h, Rated current, 1.5h ON/0.5h OFF cycle		
Load life moisture	10	1.5	40°C±2°C, 90%~95%RH, 1000h, Rated current, 1.5h ON/0.5h OFF cycle		
Rapid change of temperature	10	4	-40°C (30min) /+125°C (30min) 10 cycles		
Resistance to solvent	No evidence of damages to protective coating and marking.	_	Conforming to MIL-STD-202F		

■Precautions for Use

- For type 4A and 5A, heating value from the products is high. Please consider the mouting condition and keep the surface temperature under 70°C 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.