



C250 Series

Features

- Radial Leaded Devices
- Cured, flame retardant epoxy polymer insulating material meets UL 94V-0 requirements
- Bulk packaging, or tape and reel available on most models

Applications

- Almost anywhere there is a low voltage power supply, up to DC60V and a load to be protected, including:
- Security and fire alarm systems
 - Analog and digital line cards
 - Modems and DSL

Alpha-Top (Sea & Land Alliance)

Electrical Properties

Model	I _{hold} (A)	I _{trip} (A)	V _{max} Operating (Vdc)	V _{max} Interrupt (Vrms)	I _{max} (A)	P _d Typ. (W)	Maximum Time To Trip		Resistance			Agency Approval
							Current (A)	Time (Sec)	R _{i min.} (Ω)	R _{i max.} (Ω)	R _{1 max} (Ω)	UL
C250-080	0.080	0.160	60	250	3.0	1.00	0.35	3.00	12.0	22.0	33.0	✓
C250-110	0.110	0.220	60	250	3.0	1.00	1.00	1.10	6.0	12.0	16.0	✓
C250-120	0.120	0.240	60	250	3.0	1.00	1.00	1.50	6.5	10.5	16.0	✓
C250-145	0.145	0.290	60	250	3.0	1.00	1.00	2.50	3.5	6.5	14.0	✓
C250-180	0.180	0.360	60	250	10.0	1.50	1.00	18.00	1.0	3.0	5.0	✓

I_{hold} = Hold Current. Maximum current device will not trip in 25°C still air.

I_{trip} = Trip Current. Minimum current at which the device will always trip in 25°C still air.

V_{max} Operating = Maximum operating voltage (Vdc) device can withstand without damage at rated current (I_{max}).

V_{max} Interrupt = Maximum interrupt voltage (Vac) device can withstand without damage at rated current (I_{2t} = 1A2S).

I_{max} = Maximum fault current device can withstand without damage at rated voltage (V_{max}).

P_d = Typical power dissipated from device when in the tripped state in 25°C still air environment at rated voltage.

R_{imin/max} = Minimum/Maximum device resistance prior to tripping at 25°C

R_{1max} = Maximum device resistance one hour after it is tripped at 25°C.

CAUTION : Operation beyond the specified ratings may result in damage and possible arcing and flame.

Environmental Specifications

Test	Conditions
Passive aging	+85°C, 1000 hrs.
Humidity aging	+85°C, 85% R.H. , 1000 hrs.
Thermal shock	+125°C to -55°C, 10 times
Resistance to solvent	MIL-STD-202, Method 215F
	MIL-STD-202, Method 201
Ambient operating /storage conditions	: - 40 °C to +85 °C
Maximum surface temperature of the device in the tripped state	is 125 °C

Agency Approvals :



E201504(Alpha-Top)/E319079(Sea&Land)

Regulation/Standard:



2002/95/EC

EN14582

! WARNING:

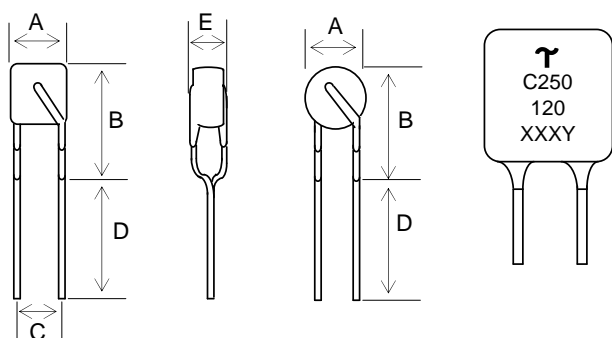
- Use PPTC beyond the maximum ratings or improper use may result in device damage and possible electrical arcing and flame.
- PPTC are intended for protection against occasional over current or over temperature fault conditions and should not be used when repeated fault conditions or prolonged trip events are anticipated.
- Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal, and mechanical procedures for electronic components.
- Use PPTC with a large inductance in circuit will generate a circuit voltage (L di/dt) above the rated voltage of the PPTC.
- Avoid impact PPTC device its thermal expansion like placed under pressure or installed in limited space.

Physical Dimensions (Unit: mm)

Model	A Max.	B Max.	C Typ.	D Min.	E Max.
C250-080	6.5	12.0	5.1	5.0	3.8
C250-110	6.5	15.0	5.1	5.0	3.8
C250-120	7.0	15.0	5.1	5.0	3.8
C250-145	7.0	13.5	5.1	5.0	3.8
C250-180	10.5	16.5	5.1	5.0	3.8

Dimensions

Note : Round chip only used for C250 -080(T/U) and -110U



Marking

Physical Characteristics

Lead Material :

C250- 080~180: Tin-plated copper, 22AWG, Φ 0.65mm(0.026 in).

Lead Solderability : MIL-STD-202, Method 208E

I_{hold} Versus Temperature

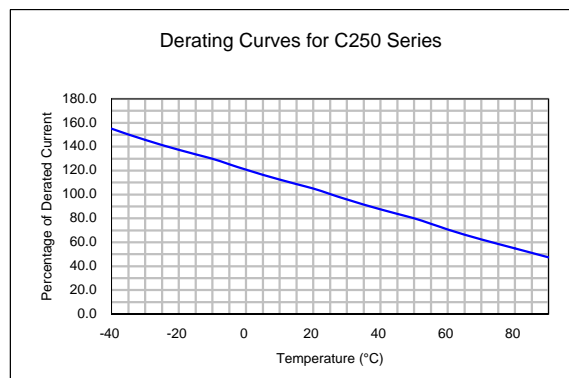
Model	Maximum ambient operating temperature (T_{mao}) vs. hold current (I_{hold})								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
C250-080	0.124	0.110	0.095	0.080	0.066	0.059	0.051	0.044	0.033
C250-110	0.171	0.151	0.131	0.110	0.091	0.081	0.071	0.061	0.046
C250-120	0.186	0.165	0.143	0.120	0.099	0.088	0.077	0.066	0.050
C250-145	0.225	0.199	0.172	0.145	0.119	0.106	0.093	0.080	0.060
C250-180	0.279	0.247	0.213	0.180	0.147	0.131	0.115	0.099	0.074

Order Information

C250	120	T	RA	B-0.5	KR or KU	Packing	
Product name	Hold Current	T= Pre-tripped U= Uncoated Blank= Standard	Rx= Resistance range (Optional)	B-x.x= Resistance Bin Range within 0.5ohm in one lot. (Optional)	K=Kink leads R=Tape&Reel U=Bulk package	Reel Q'ty	Bag Q'ty
250V	(mA)					1500	500

Devices taped with reference to EIA468-B standard.

Typical Time-To-Trip at 25°C



Thermal Derating Curve

