

Telecom Circuit Protector 4010BC-T Series

Descriptions

The telecom circuit protector designed to protect against power cross faults and comply with all surge requirements.

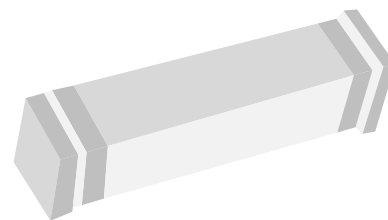
Allows compliance with telecom regulatory standards including Bellcore GR 1089, UL 1950/60950, and FCC part 68. Application circuit testing is recommended.

Protects against overcurrent conditions found in telecom Subscriber Line Interface Cards (SLICs), xDSL Modem Applications, Set-Top Boxes, and Consumer Premises Equipment (CPE).

Electrical Characteristics			
Rated Current	1.0In	2.5In	3.0In
500mA~2A	4 hour min	1~120 sec	10 sec max

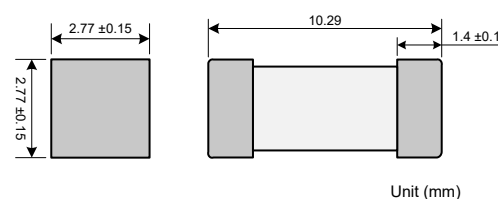
Features

- Fast Acting High current brick fuse
- Surface mount design to save space
- Ceramic Square body with end cap
- Designed to UL248-1
- Fully compatible with lead-free solder and high temperature profile associated with lead-free assembly

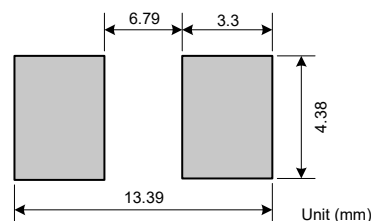


Top View (4010BC-T)

Product Dimensions



Recommended land pattern



Electrical information (Tamb=25°C)

Part number	Rated Voltage	Rated Current	Breaking Capacity *		Typical Cold. Resistance *	Typical Voltage Drop	Typical Prearcing I ² t *
	AC (V)	(A)	250V AC	600VC *	(mΩ)	(mV)	(A ² Sec)
4010BC250-0050T	250	0.50	50	60	530	470	1.3
4010BC250-0125T	250	1.25	50	60	110	205	22
4010BC250-0200T	250	2.00	50	60	75	200	30

* AC Interrupting Rating (measured at designated voltage, 100% power factor)

* 600V, 60A Interrupting ratings test were performed by closing the circuit between 50° and 70° on the voltage wave.

* DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25 °C

* Typical Pre-arcing I²t are measured at 60VDC, 10In Current

* Maximum Total Clearing is measured on a 40A, 600V AC, unity power factor circuit.

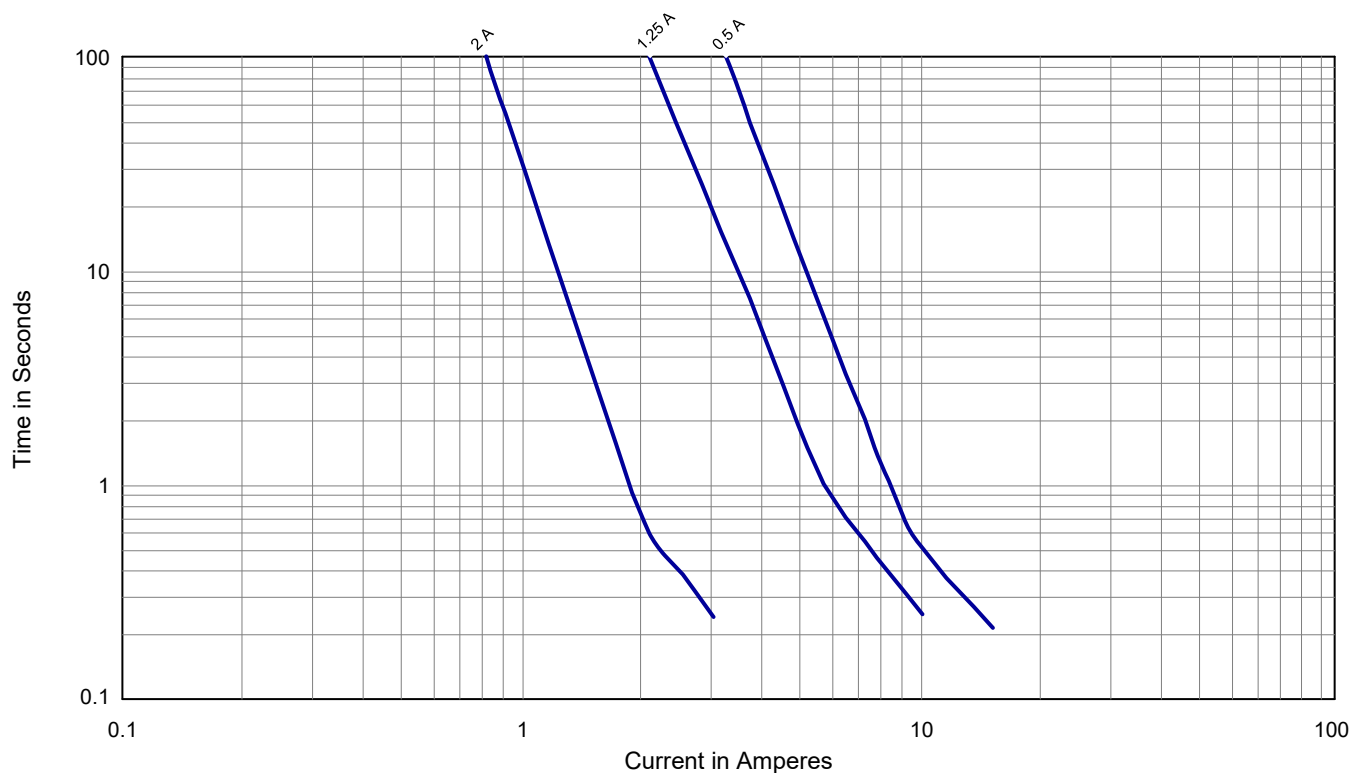
Surge Specification

Standard	Surge	Voltage	Waveforms	Current	Reps	Fuse Choices
TIA-968-A	Metallic A	800V	10x560 μ s	100A	2	0.5/1.25A
	Longitudinal A	1500V	10x160 μ s	200A	2	1.25/2A
	Metallic B	800V	9x720 μ s/5x320 μ s	25A	2	1.25/2A
	Longitudinal B	1500V	9x720 μ s/5x320 μ s	37.5A	2	0.5/1.25A
Bellcore GR-1089	First Level Lightning	1000V	10x1000 μ s	100A	50	1.25/2A
	Second Level Lightning	2500V	2x10 μ s	500A	50	1.25/2A
ITU K.20	A Series	1500V	10x700 μ s/5x310 μ s	37.5A	10	1.25A

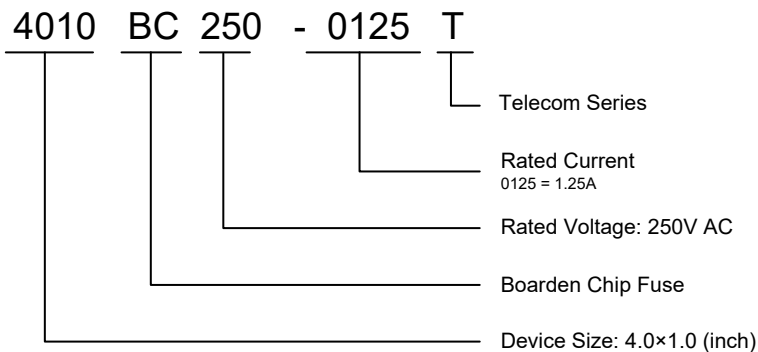
Electrical and Power Cross Test

Standard	Test	Voltage	Current	Duration
Bellcore GR-1089	First Level	AC600V	3A	1.1s
	Second Level	AC277V	25A	15min
	Second Level	AC600V	60A	5s
UL60950	L1 Test	AC600C	40A	1.5s
	L3 Test	AC600V	2.2A	30min
ITU K.20	A criteria	AC600V	1A	0.2s
	A criteria	AC230V	1.44A	15min
	B criteria	AC230V	23A	15min

Time-Current Curves



Part Numbering System

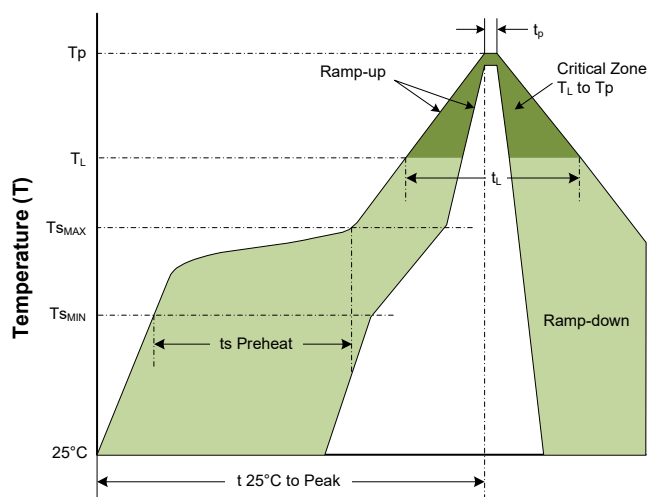


Order Information

Device	Quantity	Reel Size
4010BC-T Series	2500 pcs	13 Inch

Soldering Parameters

Profile Feature	Lead-Free Assembly
Average Ramp-up Rate ($T_{S_{MAX}}$ to T_p)	3°C/second max.
Average Ramp-down Rate (T_p to T_L)	6°C/second max.
Preheat	
• Temperature Min ($T_{S_{MIN}}$)	150°C
• Temperature Max ($T_{S_{MAX}}$)	200°C
• Time (t_s Preheat)	60-180 seconds
Time maintained above:	
• Temperature (T_L)	217°C
• Time (t_L)	60-150 seconds
Peak/Classification Temperature	
• Temperature (T_p)	260 ^{+0/-5} °C
Time within 5°C of actual Peak	
Time (t_p)	20-40 seconds
Time 25°C to peak Temperature	8 minutes max
Do not exceed	280 °C



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