

Telecom Circuit Protector 1025TC Series



Description

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 minimum	1 ~120 sec	10 sec maximum

Specifications

Part No.	Rated Voltage	Rated Current (A)	Marking Code	Breaking Capacity (A) ¹		Typical Cold Resistance (mOhms) ³	Typical Voltage Drop (mV)	Typical Pre-Arching I ² t (A ² Sec) ⁴	Maximum Total Clearing I ² t ⁵
	AC			250VAC	600VC ²				
1025TC500mA	250V	500mA	F	50	60	530	470	1.3	100A ² Sec
1025TC1.25A	250V	1.25A	J	50	60	110	205	22	
1025TC2A	250V	2A	N	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-arching I²t are measured at 60Vdc, 10In Current

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

Surge Specification

TIA-968-A (formerly FCC Part 68) Surge Waveforms (Fuse cannot open)

Surge	Voltage	Waveforms	Current	Reps	Fuse Choices
Metallic A	800V	10x560µs	100A	2	0.5/1.25A
Longitudinal A	1500V	10x160µs	200A	2	1.25/2A
Metallic B	800V	9x720µs/5x320µs	25A	2	1.25/2A
Longitudinal B	1500V	9x720µs/5x320µs	37.5A	2	0.5/1.25A

Bellcore GR-1089-CORE Surge Waveforms (Fuse cannot open)

Surge	Voltage	Waveforms	Current	Reps	Fuse Choices
First Level Lightning	1000V	10x1000µs	100A	50	1.25/2A
Second Level Lightning	2500V	2x10µs	500A	50	1.25/2A

ITU K.20 Surge Waveforms (Fuse cannot open)

Surge	Voltage	Waveforms	Current	Reps	Fuse Choices
A Series	1500V	10x700µs/5x310µs	37.5A	10	1.25A

Electrical and Power Cross Test

Test	Voltage	Current	Duration	Standard
First Level	AC600V	3A	1.1s	Bellcore GR-1089
Second Level	AC277V	25A	15min	Bellcore GR-1089
Second Level	AC600V	60A	5s	Bellcore GR-1089

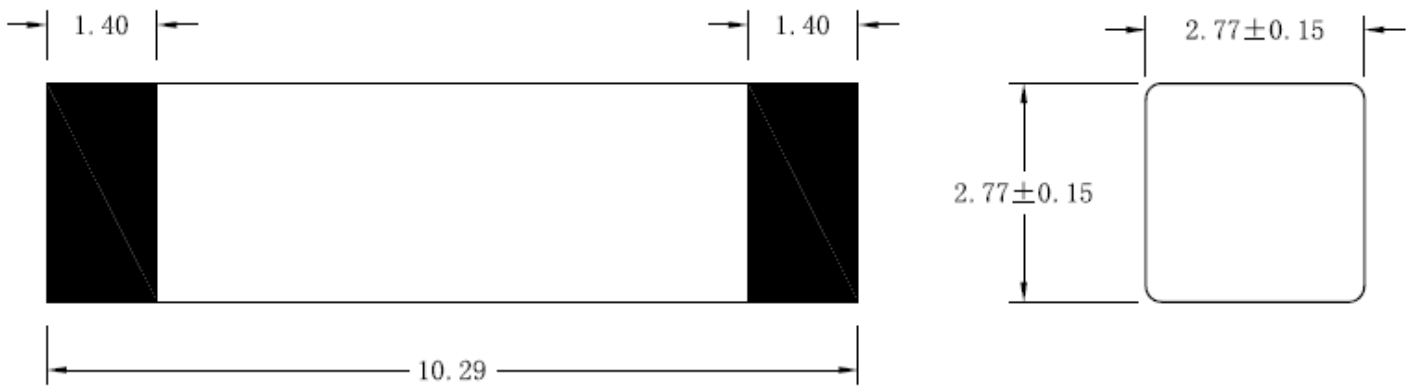
Telecom Circuit Protector
1025TC Series



L1 Test	AC600C	40A	1.5s	UL60950
L3 Test	AC600V	2.2A	30min	UL60950
A criteria	AC600V	1A	0.2s	ITU K.20
A criteria	AC230V	1.44A	15min	ITU K.20
B criteria	AC230V	23A	15min	ITU K.20

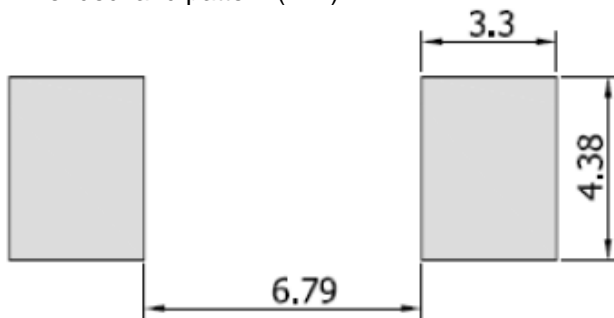
Dimension

Drawing not to scale (Unit: mm)



Recommended solder curve

- Wave Solder
 - ◆ Reservoir Temperature: 260°C
 - ◆ Time in Reservoir: 3 Seconds Maximum
- Infrared Reflow
 - ◆ Temperature: 260°C
 - ◆ Time: 30 Seconds Maximum
- Recommended land pattern (mm)



Package and Minimum order QTY

2500pcs fuses in tape (width 24mm) and reel (dia. 13inch)

Time-Current Curves

