

Description

- The first and most reliable surface mount 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.
- Eliminates the need for a current limiting resistor.
- Protects against overcurrent conditions found in telecom tip and ring applications.

ELECTRICAL CHARACTERISTICS	
% of Amp Rating	Opening Time
100%	4 Hours Minimum
250%	1 Second Minimum
250%	4-10 Seconds Typical
250%*	120 Seconds Maximum
300%	10 Seconds Maximum

* If the device does not open at 250% within 120 seconds, increase current to 300% of amp rating. Device must open in 10 seconds max.

Agency Information

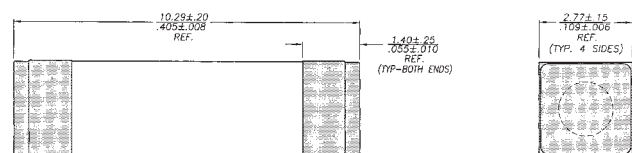
- UL Recognition Card: JDYX2/E19180
- CSA Component Certification Record and Class No.: 053787C000, 1422 30

Environmental Data

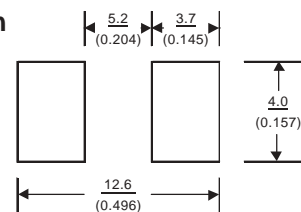
- Life Test: MIL-STD-202, Method 108A, Test Condition D
- Load Humidity: MIL-STD-202, Method 103B
- Moisture Resistance: MIL-STD-202, Method 106E
- Thermal Shock: MIL-STD-202, Method 107D, air-to-air
- Case Resistance: EIA/IS-722
- Resistance to Dissolution of Metallization: ANSI J-STD-002, Test D
- Mechanical Shock: MIL-STD-202, Method 213B, Test Condition A
- High Frequency Vibration: MIL-STD-202, Method 204D, Test Condition D
- Resistance to Solvents: MIL-STD-202, Method 215A



Dimensions mm/(inches)



Land Pattern



Soldering Method

- Wave Immersion: 260°C, 3 sec max.
- Infrared: 240°C, 30 sec max.

LIGHTNING SURGE SPECIFICATIONS

Surge Specification	Surge	Repetitions	Waveform (µSec.)	Current (A)	Voltage (V)	Performance Requirement
TCP 500mA tested						
FCC 47 Part 68	Longitudinal Type B	2	5x320	37.5	N/A	Fuse cannot open
FCC 47 Part 68	Metallic Type A	2	10x560	100	800	Fuse must open safely
Surge out		25	10x160	65	N/A	Fuse cannot open
TCP 1.25A and TCP2A tested						
FCC 47 Part 68	Longitudinal Type A	2	10x160	100 per fuse	1500	Fuse cannot open
FCC 47 Part 68	Metallic Type B	2	10x560	100	800	Fuse cannot open
Bellcore GR-1089-CORE	First Level Lightning	50	10x1000	100	1000	Fuse cannot open
Bellcore GR-1089-CORE	First Level Lightning	50	2x10	500	2500	Fuse cannot open
Surge out		1	10x160	160	N/A	Fuse cannot open
Surge out		1	10x560	115	N/A	Fuse cannot open

ELECTRICAL AND POWER CROSS SPECIFICATIONS

Product Code	Voltage Rating AC	Interrupting Rating*		DC Cold Resistance** (ohms)			Typical Melting I ^{††}	Maximum Total Clearing	Typical Voltage Drop‡	Alpha Code Marking‡‡	
		250VAC	600VAC	min.	typ.	max.				1st Code	2nd Code
TCP500mA	250 V	50 A	40 A	0.420	0.530	0.640	1.3 A ² s	100 A ² s	471mV	F	u, t, s or c
TCP1.25A	250 V	50 A	60 A	0.107	0.128	0.150	22.2 A ² s	100 A ² s	205mV	J	
TCP2A	250 V	50 A	60 A	0.050	0.075	0.100	30 A ² s	100 A ² s	205mV	N	

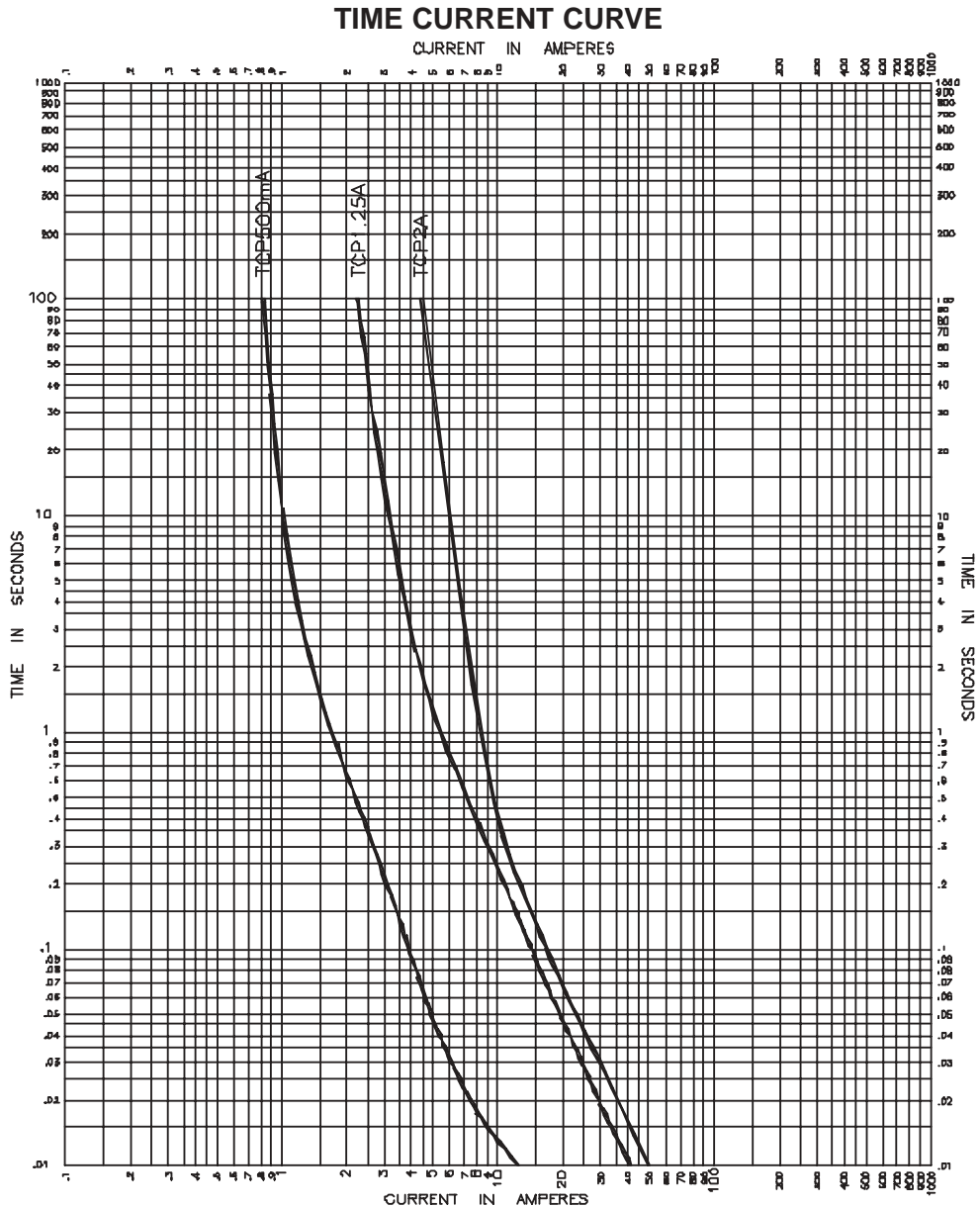
* AC Interrupting Rating (Measured at designated voltage, 100% power factor); (600V, 60A Interrupting ratings test were performed by closing the circuit between 50° and 70° on the voltage wave)

** DC Cold Resistance (Measured at 10% of rated current)

† Typical Melting I^{††} (Measured with a battery bank at 60V DC, 10x-rated current, time constant of calibrated circuit less than 50 microseconds)

‡ Typical Voltage Drop (Measured at rated current after temperature stabilizes)

‡‡ Alpha Code Marking (2nd position alpha code, u = USA, t = Taiwan, s = China and c = Costa Rica)



PACKAGING CODE

Packaging Code	Description
SP1	10 pieces of fuses on 24mm tape, 8mm pitch
SP2	50 pieces of fuses on 24mm tape, 8mm pitch
TR1	1000 pieces of fuses on 24mm tape-and-reel on 13 inch (330mm) reel per EIA Standard 481, 8mm pitch
TR2	2500 pieces of fuses on 24mm tape-and-reel on 13 inch (330mm) reel per EIA Standard 481, 8mm pitch