defining a degree of excellence

Type SMP 2A
Surface Mount Power Cross Protection Fuse

26-Aug-03

SMP Surface mount Power Cross Protection Fuses are primarily intended for use in telecommunication circuit applications requiring low current protection with high surge tolerance. They are typically used to replace heat coil type devices. They are designed to be placed between the line input and the surge arresting components (mov. gas tube, zenor diode, air gaps, etc.)

These fuses will withstand transient surge currents generated by lighting in accordance with the attached table.

SMP fuses guard protected circuitry against sustained overload or short circuit conditions. Such sustained overloads may be generated by accidental contact between utility cables and phone lines (power line cross).

SMP Fuse are used in circuits to obtain compliance with the test requirements specified in UL 1950/60950 and Bellcore GR 1089.

Catalog Number	Ampere Rating	Voltage Rating	Typical Cold Resistance (ohm)	Volt-drop @100% *In* (Volt) max.	Melting I^2T < 10 mSec (A^2 Sec)	Melting I^2T @ 10 *In* (A^2 Sec)	Maximum Power Dissipation (w)
SMP 2	2A	600V	0.055	0.20	14.0	17.0	0.71

Consult manufacturer for other ratings

SURGE WITHSTAND RATINGS

Voltage	Peak Surge Current	Maximum Rise/Duration Time	Repetitions
1000V	120A	10 uS x 1000 uS	100 Pulses (50 Each Polarity)
2500V	500A	2 uS x 10 uS	40 Pulses (20 Each Polarity)
5000V	500A	2 uS x 10 uS	4 Pulses (2 Each Polarity)

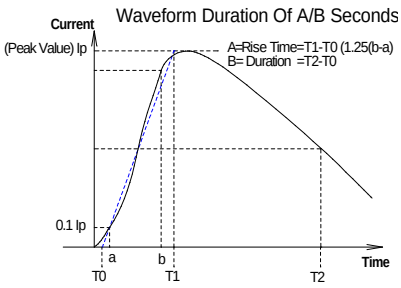
Electrical Characteristics (UL STD. 248-14)

Testing Current	Blow Time	
	Minimum	Maximum
110%	4 hrs.	N/A
200%	N/A	60 sec
500%	100 msec	1.5 sec
1000%	30 msec	300 msec

Power Cross (Telecom) Rating

Overload Current	Voltage	Clearing Time Limit	
		Minimum	Maximum
3A	600V	1.1 sec	900 sec
7A	600V	0.4 sec	2.5sec
30A	600V	N/A	65 msec
60A	600V	N/A	13 msec

Double -exponential Impulse Waveform



Safety Agency Approvals

Approval Standards File No.	Interrupting Rating	Power Factor	Intended Application
Recognized File no. E20624	60A@ 600Vac	Resistive	Telecom Protection
	100A@ 125Vdc	Resistive	General Purpose

Physical specification

Materials Ceramic Body / Tin Plated Brass Caps
Lead Free Solder

Marking On fuse: "**bel**", "Current Rating"
On label: Above info; "Type", "Voltage Rating", "Appropriate Safety Logos"
Interrupting Rating plus " CE "

Packaging 2000 fuses in 13 inches dia. Reel, 16mm wide tape, 8mm pitch, per EIA standard 481

Environmental Specifications

Soldering Techniques & Compatability

Reflow: 240°C, 30sec max.

Wave Solder: 260°C, 3 sec max.

Shock

MIL-STD-202, Method 213, Test Condition I
(100 G's peak for 6 milliseconds).

Vibration

MIL-STD-202, Method 201 (10-55 Hz, 0.06 inch, total excursion).

Salt Spray

MIL-STD-202, Method 101, Test condition B (48 hrs).

Insulation Resistance

MIL-STD-202, Method 302, Test Condition A
(After Opening) 10,000 ohms minimum.

Solderability

MIL-STD-202, Method 208.

Resistance to solder Heat:

MIL-STD-202, Method 210, Test Condition J (235°C, 30 sec)

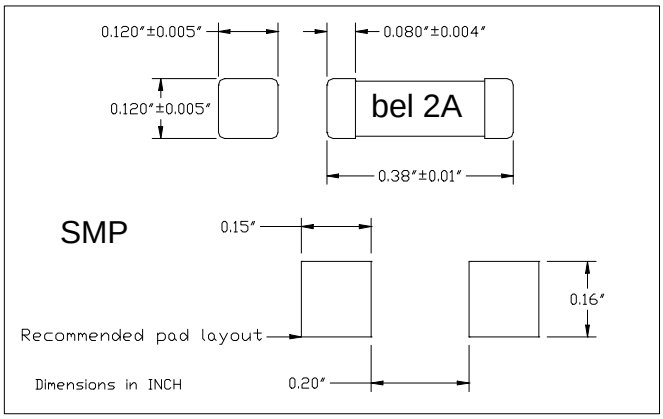
Thermal Shock

MIL-STD-202, Method 107, Test Condition B
(-65°C to +125°C)

Operating Temperature

-55°C to +125°C

Mechanical Dimensions



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SMP - TIME CURRENT CHARACTERISTIC CURVE