

## Specification Status: Released

### Electrical Rating

**Voltage: 32 V<sub>DC</sub> MAX**

**Current: 100 A MAX**

Insulating Material:

Cured, Flame Retardant Epoxy Polymer

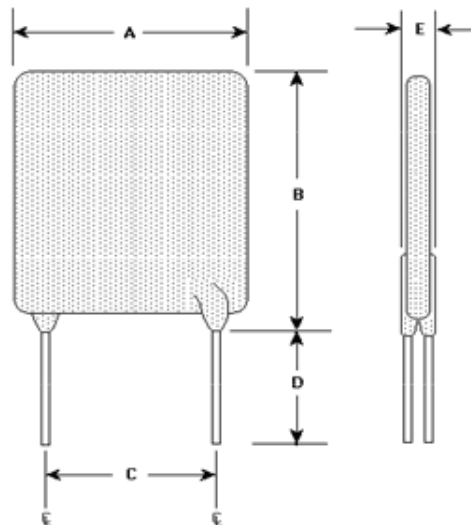
Lead Material:

20 AWG Tin Plated Copper

Part Marking:

— Manufacturer's Mark  
X E3 and Part Identification

□ □ □ □ — Lot Identification



**TABLE I. INSTALLATION ENVELOPE DIMENSIONS:**

|      | A   |        | B   |        | C      |        | D     |     | E   |        |
|------|-----|--------|-----|--------|--------|--------|-------|-----|-----|--------|
|      | MIN | MAX    | MIN | MAX    | MIN    | MAX    | MIN   | MAX | MIN | MAX    |
| mm:  | --  | 10.2   | --  | 15.5   | 4.32   | 5.84   | 7.6   | --  | --  | 3.8    |
| in*: | --  | (0.40) | --  | (0.61) | (0.17) | (0.23) | (0.3) | --  | --  | (0.15) |

\*Rounded off approximation

**TABLE II. PERFORMANCE RATINGS:**

| I HOLD<br>RATED<br>CURRENT | CURRENT<br>RATINGS      |                         | INITIAL<br>RESISTANCE<br>VALUES |                        | TIME TO TRIP                    | R <sub>a</sub> MAX     | TRIPPED-<br>STATE POWER<br>DISSIPATION |
|----------------------------|-------------------------|-------------------------|---------------------------------|------------------------|---------------------------------|------------------------|----------------------------------------|
| AMPS<br>AT 25°C<br>HOLD    | AMPS<br>AT 25°C<br>HOLD | AMPS<br>AT 25°C<br>TRIP | OHMS<br>AT 25°C<br>MIN          | OHMS<br>AT 25°C<br>MAX | SECONDS AT<br>25°C, 15 A<br>MAX | OHMS<br>AT 25°C<br>MAX | WATTS<br>AT 25°C<br>TYP                |
| 3.0                        | 3.0                     | 6.0                     | 0.035                           | 0.0688                 | 5                               | 0.11                   | 3.2                                    |

Reference Documents:

PS400, PS300 (reference for R<sub>1</sub> MAX)

Precedence:

This specification takes precedence over documents referenced herein.

Effectivity:

Reference documents shall be the issue in effect on the date of invitation for bid.

CAUTION:

Operation beyond the rated voltage or current may result in rupture, electrical arcing or flame.

### Materials Information

ROHS Compliant

ELV Compliant

Pb-Free

Halogen Free\*

Directive 2002/95/EC  
Compliant

Directive 2000/53/EC  
Compliant



\* Halogen Free refers to: Br≤900ppm, Cl≤900ppm, Br+Cl≤1500ppm.

**TABLE III. AUTOMOTIVE SPECIFIC STRESS TESTS AND TEST CONDITIONS:**

| ELECTRICAL STRESS TESTS                | TEST CONDITIONS (see note 2)     |
|----------------------------------------|----------------------------------|
| ESD Voltage Withstand<br>(see note 1)  | 25kV                             |
| Short Circuit Fault Current Durability | 25 cycles, 32V, 200A             |
| Fault Current Durability               | 350 cycles, 32V/100A             |
| End-of-life Mode Verification          | 1750 cycles, 32V/100A            |
| Jump Start Endurance<br>(see note 1)   | 3 cycles, 48V, 2-minute duration |
| Load Dump Endurance<br>(see note 1)    | 10 cycles, 86.5V                 |

Note 1: The PolySwitch devices are tested in series with a load resistance and the voltages specified in the test conditions are shared between the PolySwitch device and the load resistance as specified in PS400.

Note 2: Please refer to Appendix A of PS400 for the detailed test procedures

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