

## Specification Status: Released

### Electrical Rating

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

**Current: 100 A MAX**

Insulating Material:

Cured, Flame Retardant Epoxy Polymer

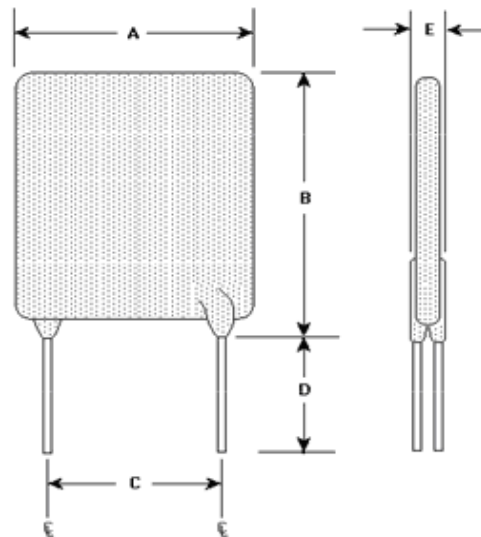
Lead Material:

20 AWG Tin Plated Copper

Part Marking:

— Manufacturer's Mark  
X E5 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:  | --  | 14.0   | --  | 24.1   | 4.3    | 5.8    | 11.5   | --  | --  | 3.8    |
| in*: | --  | (0.55) | --  | (0.95) | (0.17) | (0.23) | (0.45) | --  | --  | (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>aMAX</sub>      | TRIPPED-<br>STATE POWER<br>DISSIPATION |
|----------------------------|-------------------------|------|---------------------------------|------------------------|---------------------------------|------------------------|----------------------------------------|
| AMPS<br>AT 25°C<br>HOLD    | AMPS<br>AT 25°C<br>HOLD | TRIP | OHMS<br>AT 25°C<br>MIN          | OHMS<br>AT 25°C<br>MAX | SECONDS AT<br>25°C, 25 A<br>MAX | OHMS<br>AT 25°C<br>MAX | WATTS<br>AT 25°C<br>TYP                |
| 5.0                        | 5.0                     | 10.0 | 0.015                           | 0.025                  | 9.0                             | 0.040                  | 5.3                                    |

Reference Documents:

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

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**

Directive 2002/95/EC  
Compliant

**ELV Compliant**

Directive 2000/53/EC  
Compliant

**Pb-Free**



**Halogen Free\***



\* 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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