

Specification Status: Released

Electrical Rating

Voltage: 32 V_{DC} 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

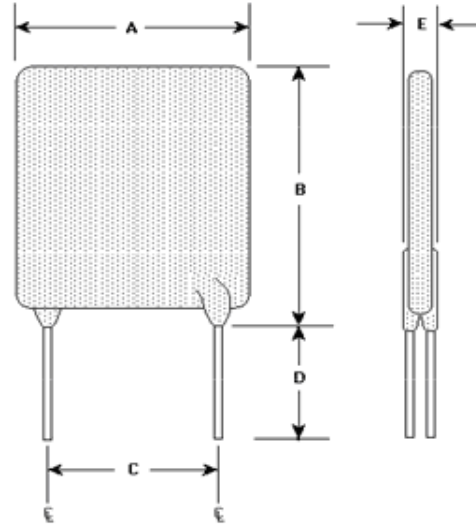


TABLE I. INSTALLATION ENVELOPE DIMENSIONS:

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

Reference Documents:

PS400, PS300 (reference for R₁ 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 (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 (see note 1) | 3 cycles, 48V, 2-minute duration |
| Load Dump Endurance (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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