

Specification Status: Released

Electrical Rating

Voltage: 32 V_{DC} MAX
Current: 100 A MAX

Insulating Material:
Cured, Flame Retardant Epoxy Polymer

Lead Material:
18 AWG Tin Plated Copper

Part Marking:

- Manufacturer's Mark
- ⊗ E10 and Part Identification
- □ □ □ — Lot Identification

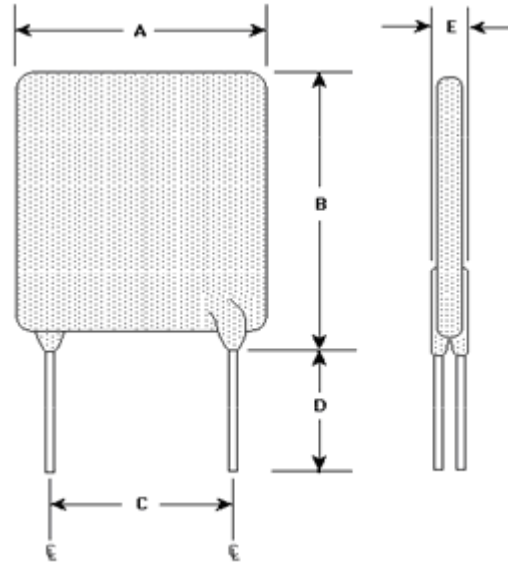


TABLE I. INSTALLATION ENVELOPE DIMENSIONS:

| | A | | B | | C | | D | | E | |
|------|-----|--------|-----|--------|--------|--------|--------|-----|-----|--------|
| | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX |
| mm: | -- | 23.5 | -- | 27.9 | 9.4 | 10.9 | 7.6 | -- | -- | 4.0 |
| in*: | -- | (0.93) | -- | (1.10) | (0.37) | (0.43) | (0.30) | -- | -- | (0.16) |

*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 | | SECONDS AT 25°C, 50 A MAX | OHMS AT 25°C MAX | WATTS AT 25°C TYP |
| 10.0 | 10.0 | 20.0 | MIN | MAX | 15 | 0.016 | 7.0 |
| | | | 0.0060 | 0.0105 | | | |

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*



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

PolySwitch®
PTC Devices
Overcurrent Protection Device

PRODUCT: AHEF1000

DOCUMENT: SCD27216
REV LETTER: D
REV DATE: MARCH 12, 2013
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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