

**Raychem Circuit Protection**

308 Constitution Drive  
Menlo Park, CA 94025-1164  
800-227-4856  
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**Raychem****PolySwitch®****PTC Devices**

Resettable Fuse

**PRODUCT: AHR1000**

DOCUMENT: SCD 24388

PCN: 826253

REV LETTER: G

REV DATE: MAY 8, 2000

PAGE NO.: 1 OF 2

**Specification Status: RELEASED****Electrical Rating****Voltage: 16V<sub>DC</sub> MAX****INSULATING MATERIAL:**

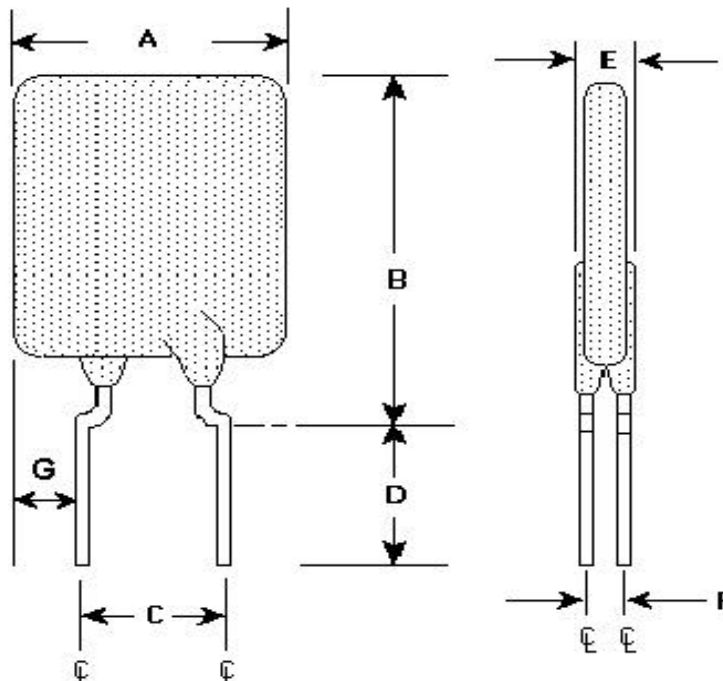
Cured, Flame Retarded Epoxy Polymer

**LEAD MATERIAL:**

20 AWG Tin/Lead Plated Copper  
(0.8 mm [0.032] nom. diameter)

**PART MARKING:**

Raychem Logo  
and Voltage  
X 16  
H10 — Part Identification  
□ □ □ □ — Lot Identification  
(can be on back)

**TABLE I. INSTALLATION ENVELOPE DIMENSIONS:**

|      | A   |        | B   |        | C      |        | D      |     | E   |        | F      | G   |         |
|------|-----|--------|-----|--------|--------|--------|--------|-----|-----|--------|--------|-----|---------|
|      | MIN | MAX    | MIN | MAX    | MIN    | MAX    | MIN    | MAX | MIN | MAX    | TYP    | MIN | MAX     |
| mm:  | --  | 17.5   | --  | 26.5   | 9.4    | 10.9   | 7.6    | --  | --  | 3.0    | 1.2    | --  | 7.47    |
| in*: | --  | (0.69) | --  | (1.04) | (0.37) | (0.43) | (0.30) | --  | --  | (0.12) | (0.05) | --  | (0.294) |

\*Rounded off approximation

**TABLE II. PERFORMANCE RATINGS:**

| CURRENT RATINGS |                       | TIME TO TRIP | RESISTANCE   |       | R <sub>a</sub> MAX | TRIPPED-STATE POWER DISSIPATION |
|-----------------|-----------------------|--------------|--------------|-------|--------------------|---------------------------------|
| AMPS AT 25°C    | SECONDS AT 25°C, 50 A | OHMS AT 25°C | OHMS AT 25°C |       | OHMS AT 25°C       | WATTS AT 25°C                   |
| HOLD            | TRIP                  | MAX          | MIN          | MAX   | TYP                | TYP                             |
| 10.0            | 20.5                  | 10.5         | .0051        | .0105 | 0.015              | 5.3                             |

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.

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**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, 16V, 200A             |
| Fault Current Durability               | 350 cycles, 16V/100A             |
| End-of-life Mode Verification          | 1750 cycles, 16V/100A            |
| Jump Start Endurance<br>(see note 1)   | 3 cycles, 26V, 1 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

# Mouser Electronics

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