

## Specification Status: Released

### Electrical Rating

**Voltage: 16V<sub>DC</sub> MAX**

#### Insulating Material:

Cured, Flame Retardant Epoxy Polymer

#### Lead Material:

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

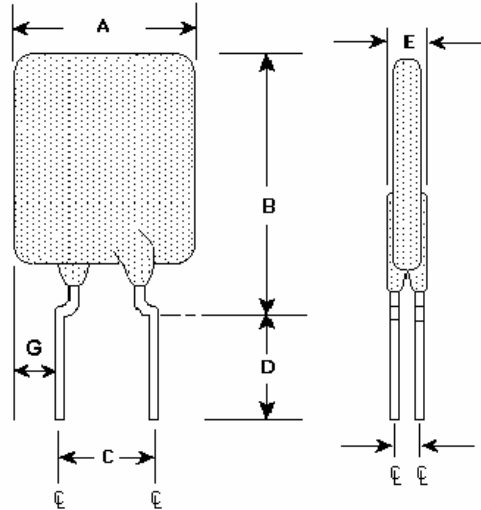
#### Part Marking:

Raychem Logo and Voltage

16

HF4.5 — 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:	--	10.4	--	15.6	4.3	5.8	7.6	--	--	3.0	1.2	--	3.94
in*:	--	(0.41)	--	(0.61)	(0.17)	(0.23)	(0.30)	--	--	(0.12)	(0.05)	--	(0.16)

\*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 HOLD	TRIP	SECONDS AT 25°C, 22.5 A MAX	OHMS AT 25°C		OHMS AT 25°C	WATTS AT 25°C TYP
			MIN	MAX		
4.5	8.7	4.0	0.017	.036	0.054	3.6

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

Directive 2002/95/EC  
Compliant

Directive 2000/53/EC  
Compliant





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**PolySwitch®**  
**PTC Devices**  
**Overcurrent Protection Device**

*Raychem Circuit Protection Products*

**PRODUCT: AHRF450**

DOCUMENT: SCD 25183  
PCN: A05383  
REV LETTER: C  
REV DATE: MAY 8, 2007  
PAGE NO.: 2 OF 2

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