

**Tyco / Electronics**  
**Raychem Circuit Protection**  
 308 Constitution Drive  
 Menlo Park, CA 94025-1164  
 Phone: 800-227-4856  
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**PolySwitch®**  
**PTC Devices**  
 Overcurrent Protection Device

**PRODUCT: AHRF1500**

DOCUMENT: SCD 26086  
 PCN: C64205  
 REV LETTER: A  
 REV DATE: FEBRUARY 22, 2005  
 PAGE NO.: 1 OF 1




**Specification Status: Released**

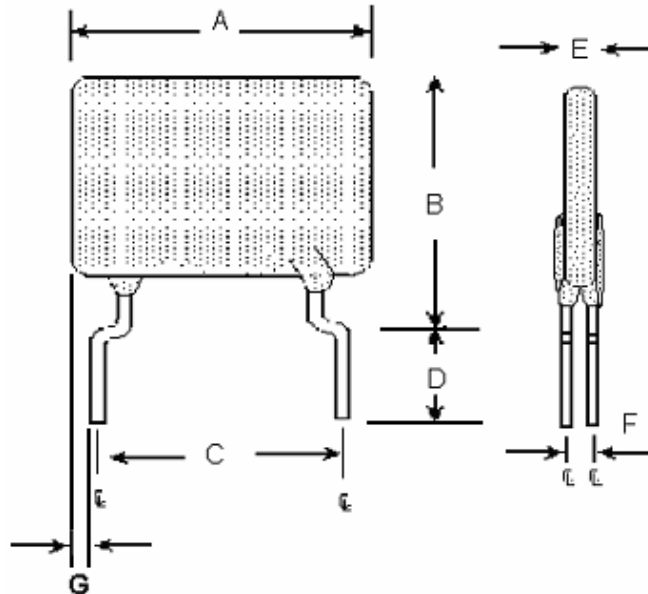
**Electrical Rating**

**Voltage: 16V<sub>DC</sub> MAX**  
**Current: 100A MAX**

Insulating Material:  
 Cured, Flame Retardant Epoxy Polymer  
 meets UL94 V-0 Requirements

Lead Material:  
 18 AWG Tin Plated Copper  
 (1.0 mm [0.040] nom. diameter)

Marking:  
 Raychem Logo and Voltage  
 XX 16  
 HF15 — Part Identification  
 Lot Identification (can be on back)



**TABLE I. INSTALLATION ENVELOPE DIMENSIONS:**

	A		B		C		D		E		F	G	
mm:	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	TYP	MIN	MAX
	--	23.5	--	28.7	9.4	10.9	7.6	--	--	3.5	1.4	--	7.82
in*:	--	(0.93)	--	(1.13)	(0.37)	(0.43)	(0.30)	--	--	(0.14)	(0.06)	--	(0.31)

\*Rounded off approximation

**TABLE II. PERFORMANCE RATINGS:**

I HOLD RATED CURRENT	CURRENT RATINGS		TIME TO TRIP	INITIAL RESISTANCE VALUES		R <sub>a</sub> MAX	NOMINAL TRIPPED POWER DISSIPATION
AMPS AT 25°C HOLD	AMPS AT 25°C HOLD	AMPS AT 25°C TRIP	SECONDS AT 25°C, 75A MAX	OHMS AT 25°C MIN	OHMS AT 25°C MAX	OHMS AT 25°C MAX	WATTS AT 25°C 16V TYP
15.0	15.0	33.0	20.0	0.0027	0.0063	0.0092	7.0

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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**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