

308 Constitution Drive Menlo Park, CA 94025-1164 Phone: 800-227-4856

www.circuitprotection.com

PolySwitch® PTC Devices

Overcurrent Protection Device

Raychem Circuit Protection Products

PRODUCT: AHRF450S-1

DOCUMENT: SCD 26368 PCN: RF0190

REV DATE: MAY 8, 2007 PAGE NO.: 1 OF 2

REV LETTER: B

Specification Status: Released

Electrical Rating Voltage: 16V_{DC} MAX

Insulating Material:

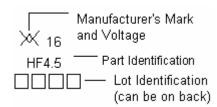
Cured, Flame Retardant Epoxy Polymer

Lead Material:

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

Part Marking:

mm: in*:



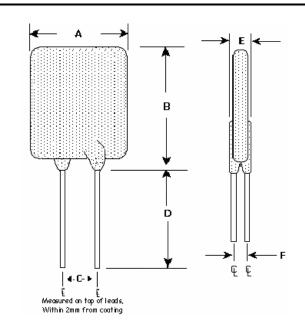


TABLE I. INSTALLATION ENVELOPE DIMENSIONS:

Α		В		С		D		Е		F
MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	TYP
	10.4		14.3	4.3	5.8	25.4			3.0	1.2
	(0.41)		(0.56)	(0.17)	(0.23)	(1.0)			(0.12)	(0.05)

^{*}Rounded off approximation

TABLE II. PERFORMANCE RATINGS:

CURRENT		TIME TO	RESISTANCE		R_{aMAX}	TRIPPED-
RATINGS		TRIP			G 1111 U 1	STATE
						POWER
						DISSIPATION
AMPS		SECONDS AT	ОН	MS	OHMS	WATTS AT
AT 25°C		25°C, 22.5 A	AT 25°C		AT 25°C	25°C
HOLD	TRIP	MAX	MIN	MAX		TYP
4.5	8.7	4.0	0.017	0.036	0.054	3.6

Reference Documents: PS400, PS300 (reference for R_{1 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:

1	
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