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www.circuitprotection.com

## PolySwitch® PTC Devices

**Overcurrent Protection Device** 

**PRODUCT: AHRF1400** 

DOCUMENT: SCD 26640

PCN: RF0208 REV LETTER: C

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

Raychem Circuit Protection Products

### **Specification Status: Released**

### **Electrical Rating**

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

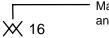
### Insulating Material:

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

#### Lead Material:

18 AWG Tin Plated Copper (1.0 mm [0.04] nom. diameter)

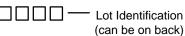
### Marking:



Manufacturer's Mark

and Voltage

HF14 — Part Identification



## TABLE I. DIMENSIONS:

mm:
:~*.

	Α		В		С		D		E		F
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	TYP
:		23.5	-	28.6	9.4	10.9	7.6		1	3.6	1.4
		(0.93)		(1.13)	(0.37)	(0.43)	(0.3)		-	(0.14)	(0.06)

<sup>\*</sup>Rounded off approximation

### **TABLE II. PERFORMANCE RATINGS:**

1	CURRENT		TIME TO	INI	ΓIAL	R <sub>a MAX</sub>	TRIPPED-
	RATINGS		TRIP	RESIS	TANCE	· ·a IVIAX	STATE
				VALUES			POWER
							DISSIPATION
	AMPS		SECONDS	OHMS		OHMS	WATTS AT
	AT 25°C		AT 25°C, 70 A	AT 2	25°C	AT 25°C	25°C 16V
	HOLD	TRIP	MAX	MIN	MAX	MAX	TYP
	14.0	28.3	15.5	0.0029	0.006	0.009	6.9

Reference Documents: PS400, PS300 (reference for R<sub>1 MAX</sub>)

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 for the detailed test procedures.