

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

www.circuitprotection.com

### **PolySwitch® PTC Devices**

**Overcurrent Protection Device** 

**PRODUCT: AHRF650S** DOCUMENT: SCD 26280

PCN: RF0089 **REV LETTER: B** 

**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

Insulating Material:

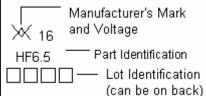
Cured, Flame Retardant Epoxy

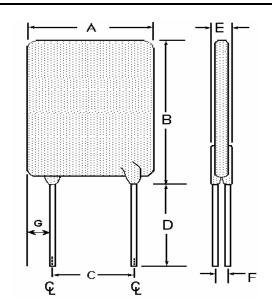
Polymer

Lead Material:

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

Part Marking:





#### TABLE I. INSTALLATION ENVELOPE DIMENSIONS:

	Α		В		С		D		Е		F	(	G
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	TYP	MIN	MAX
mm:		12.7		22.2	4.3	5.8	7.6			3.0	1.2		5.08
in*:		(0.50)		(0.88)	(0.17)	(0.23)	(0.30)			(0.12)	(0.05)		(0.20)

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

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

CUR	RENT	TIME TO	RESIS	TANCE	$R_{a MAX}$	TRIPPED-	
RATI	NGS	TRIP	i		<u> </u>	STATE	
						POWER	
						DISSIPATION	
AMPS		SECONDS AT	OH	IMS	OHMS	WATTS AT	
AT 25°C		25°C, 32.5 A	AT 25°C		AT 25°C	25°C	
HOLD	TRIP	MAX	MIN	MAX		TYP	
6.5	13.7	7.0	0.009	0.018	0.026	4.3	

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