Z Tyco Electronics

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: AHRF650S

DOCUMENT: SCD 26280 PCN: RF0089 REV LETTER: B REV DATE: MAY 8, 2007 PAGE NO.: 1 OF 2

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:

Manufacturer's Mark

HF6.5 — Part Identification

(can be on back)

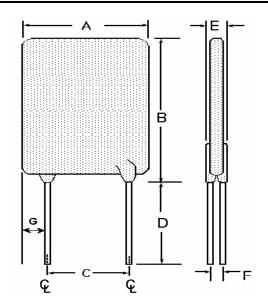


TABLE I. INSTALLATION ENVELOPE DIMENSIONS:

	A		В		С		D		E		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)
-	*D ~.	un al a al a ff	an manaving	a ti a ra									

*Rounded off approximation

TABLE II. PERFORMANCE RATINGS:

CURRENT		TIME TO	RESISTANCE		R _{a MAX}	TRIPPED-	
RATINGS		TRIP				STATE	
						POWER	
						DISSIPATION	
AMPS		SECONDS AT	OHMS		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: Precedence: Effectivity: CAUTION:

PS400, PS300 (reference for $R_{1 MAX}$)

This specification takes precedence over documents referenced herein. Reference documents shall be the issue in effect on the date of invitation for bid. Operation beyond the rated voltage or current may result in rupture, electrical arcing or flame.

Materials Information ROHS Compliant

ELV Compliant

Pb-Free





© 2005,2007 Tyco Electronics Corporation. All rights reserved.



PolySwitch® PTC Devices

Overcurrent Protection Device

308 Constitution Drive Menlo Park, CA 94025-1164 Phone: 800-227-4856 www.circuitprotection.com

Raychem Circuit Protection Products

PRODUCT: AHRF650S DOCUMENT: SCD 26280 PCN: RE0089

PCN: RF0089 REV LETTER: B 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