

Menlo Park, CA 94025-1164

308 Constitution Drive

Phone: 800-227-4856

www.circuitprotection.com

PolySwitch® **PTC Devices**

Overcurrent Protection Device

PRODUCT: AHRF650

DOCUMENT: SCD 25185

PCN: A43987 **REV LETTER: B**

REV DATE: MAY 8, 2007

PAGE NO.: 1 OF 2

Raychem Circuit Protection Products

Specification Status: RELEASED

Electrical Rating Voltage: 16V_{DC} MAX

Insulating Material:

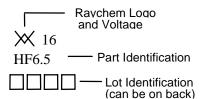
Cured, Flame Retardant Epoxy

Polymer

Lead Material:

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

Part Marking:



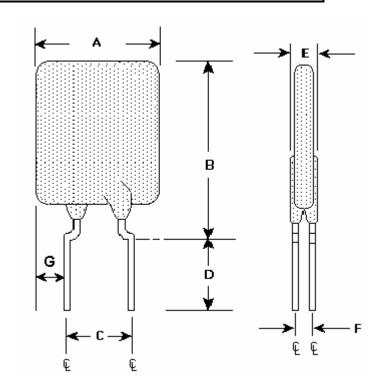


TABLE I. INSTALLATION ENVELOPE DIMENSIONS:

	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)

*Rounded off approximation

TABLE II. PERFORMANCE RATINGS:

TABLE III I EAG ORAIN ATOE TO THE TOTAL TO								
CURRENT		TIME TO	RESIS	TANCE	R _{a MAX}	TRIPPED-STATE		
RATINGS		TRIP			Q 1111 U.	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		

PS400, PS300 (reference for $R_{1\,MAX}$) Reference Documents:

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.

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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