

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

## PolySwitch® PTC Devices

**Overcurrent Protection Device** 

PRODUCT: AHEF050

DOCUMENT: SCD 26995 PCN: RF1044 REV LETTER: B REV DATE: JANUARY 22, 2009 PAGE NO.: 1 OF 2

Raychem Circuit Protection Products

# Specification Status: Released

#### Electrical Rating Voltage: 32V<sub>DC</sub> MAX Current: 100A MAX

- Insulating Material:
  - Cured, Flame Retardant Epoxy Polymer

#### Lead Material:

24 AWG Tin Plated Copper Clad Steel

#### Part Marking:

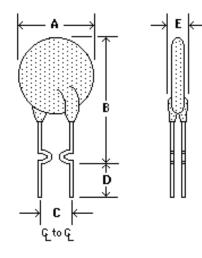
—— Manufacturer's Mark

× 32 and Voltage

EF0.5 — Part Identification

Lot Identification

(can be on back)



#### TABLE I. DIMENSIONS:

	А		В		С		D		E	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
mm:		7.4		12.7	4.3	5.8	7.6			3.3
in*:		(0.29)		(0.50)	(0.17)	(0.23)	(0.30)			(0.13)

\*Rounded off approximation

#### TABLE II. PERFORMANCE RATINGS:

I HOLD RATED CURRENT	CURRENT RATINGS		INITIAL RESISTANCE VALUES		TIME TO TRIP	RaMax	TRIPPED- STATE POWER DISSIPATION
AMPS	AMPS		OHMS		SECONDS AT	OHMS	WATTS
AT 25°C	AT 25°C		AT 25°C		25°C, 2.5 A	AT 25°C	AT 25°C
HOLD	HOLD	TRIP	MIN	MAX	MAX	MAX	TYP
0.50	0.50	1.00	0.35	0.78	3.0	1.10	0.9

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



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, 32V, 200A
Fault Current Durability	350 cycles, 32V/100A
End-of-life Mode Verification	1750 cycles, 32V/100A
Jump Start Endurance (see note 1)	3 cycles, 48V, 2 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