

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: AHEF300

DOCUMENT: SCD27257 PCN: RF1038 **REV LETTER: B**

REV DATE: JANUARY 22, 2009

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Specification Status: Released

Electrical Rating Voltage: 32 V_{DC} MAX Current: 100 A MAX

Insulating Material:

Cured, Flame Retardant Epoxy Polymer

Lead Material:

20 AWG Tin Plated Copper

Part Marking:

Manufacturer's Mark and Voltage **XX** 32 Part Identification Lot Identification (can be on back)

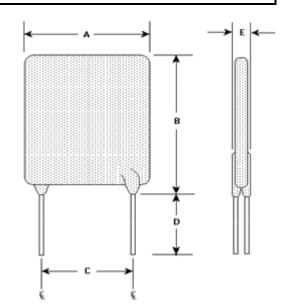


TABLE I. INSTALLATION ENVELOPE DIMENSIONS:

	Α		В		С		D		E	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
mm:		10.2	-	15.5	4.32	5.84	7.6		-	3.8
in*:		(0.40)		(0.61)	(0.17)	(0.23)	(0.3)			(0.15)

^{*}Rounded off approximation

TABLE II. PERFORMANCE RATINGS:

I HOLD	CURRENT		INITIAL		TIME TO TRIP	R _{a MAX}	TRIPPED-
RATED	RATINGS		RESISTANCE				STATE
CURRENT	IT		VALUES				POWER
							DISSIPATION
AMPS	AMPS		OHMS		SECONDS AT	OHMS	WATTS
AT 25°C	AT 25°C		AT 25°C		25°C, 15 A	AT 25°C	AT 25°C
HOLD	HOLD	TRIP	MIN	MAX	MAX	MAX	TYP
3.0	3.0	6.0	0.035	0.0688	5	0.11	3.2

Reference Documents:

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

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, 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