

PolySwitch® PTC Devices

Overcurrent Protection Device

PRODUCT: AHEF1000

DOCUMENT: SCD27216 PCN: RF1041

REV LETTER: C REV DATE: MAY 12, 2011 PAGE NO.: 1 OF 2

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

308 Constitution Drive

Specification Status: Released

Electrical Rating

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

Insulating Material:

Cured, Flame Retardant Epoxy Polymer

Lead Material:

18 AWG Tin Plated Copper

Part Marking:

Manufacturer's Mark and Voltage $\times \times 32$ - Part Identification

Lot Identification (can be on back)

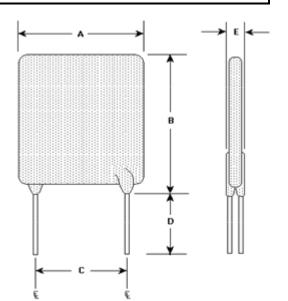


TABLE I. INSTALLATION ENVELOPE DIMENSIONS:

	Α		В		С		D		E	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
mm:		23.5		27.9	9.4	10.9	7.6			4.0
in*:		(0.93)		(1.10)	(0.37)	(0.43)	(0.30)	-		(0.16)

^{*}Rounded off approximation

TABLE II. PERFORMANCE RATINGS:

I HOLD	CURRENT		INITIAL		TIME TO TRIP	$R_{a MAX}$	TRIPPED-
RATED	RATINGS		RESISTANCE				STATE
CURRENT			VALUES				POWER
							DISSIPATION
AMPS	AMPS		OHMS		SECONDS AT	OHMS	WATTS
AT 25°C	AT 25°C		AT 25°C		25°C, 50 A	AT 25°C	AT 25°C
HOLD	HOLD	TRIP	MIN	MAX	MAX	MAX	TYP
10.0	10.0	20.0	0.0060	0.0105	15	0.016	7.0

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

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