Tyco Electronics

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PolySwitch® **PTC Devices**

Overcurrent Protection Device

Raychem Circuit Protection Products

PRODUCT: AHEF500

DOCUMENT: SCD27258 PCN: RF1039 **REV LETTER: B** REV DATE: JANUARY 22, 2009 PAGE NO.: 1 OF 2

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 Г And Voltage XX 32 EF5 Part Identification Lot Identification (can be on back)

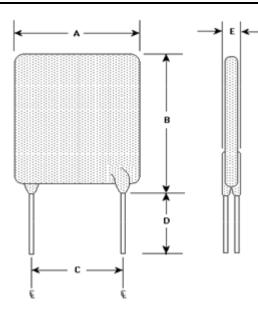


TABLE I. INSTALLATION ENVELOPE DIMENSIONS:

	Α		В		С		D		E	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
mm:		14.0		24.1	4.3	5.8	11.5			3.8
in*:		(0.55)		(0.95)	(0.17)	(0.23)	(0.45)			(0.15)
	. –									

*Rounded off approximation

TABLE II. PERFORMANCE RATINGS:

I HOLD	CURRENT		INITIAL		TIME TO TRIP	R _{aMAX}	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, 25 A	AT 25°C	AT 25°C
HOLD	HOLD	TRIP	MIN	MAX	MAX	MAX	TYP
5.0	5.0	10.0	0.015	0.025	9.0	0.040	5.3

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



Directive 2002/95/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