

PolySwitch® PTC Devices Overcurrent Protection Device

PRODUCT: AHEF500

DOCUMENT: SCD27258
REV LETTER: D
REV DATE: MARCH 12, 2013
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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
X E5 and Part Identification

Lot Identification

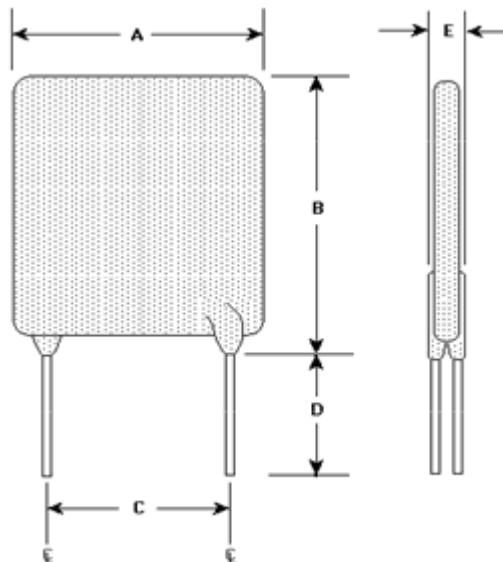


TABLE I. INSTALLATION ENVELOPE DIMENSIONS:

	A		B		C		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 RATED CURRENT	CURRENT RATINGS		INITIAL RESISTANCE VALUES		TIME TO TRIP	R _{aMAX}	TRIPPED- STATE POWER DISSIPATION
AMPS AT 25°C HOLD	AMPS AT 25°C HOLD	AMPS AT 25°C TRIP	OHMS AT 25°C		SECONDS AT 25°C, 25 A MAX	OHMS AT 25°C MAX	WATTS AT 25°C 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

Directive 2002/95/EC
Compliant

ELV Compliant

Directive 2000/53/EC
Compliant

Pb-Free



Halogen Free*



* Halogen Free refers to: Br≤900ppm, Cl≤900ppm, Br+Cl≤1500ppm.

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PTC Devices
Overcurrent Protection Device**PRODUCT: AHEF500**DOCUMENT: SCD27258
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PAGE NO.: 2 OF 2**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