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PolySwitch® PTC Devices

Overcurrent Protection Device

PRODUCT: AHEF050

DOCUMENT: SCD26995
REV LETTER: D
REV DATE: JULY 26, 2016
PAGE NO.: 1 OF 2

Specification Status: Released

Electrical Rating

Voltage: $32V_{DC}$ 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
XX E0.5 and Part Identification

□□□□ — Lot Identification

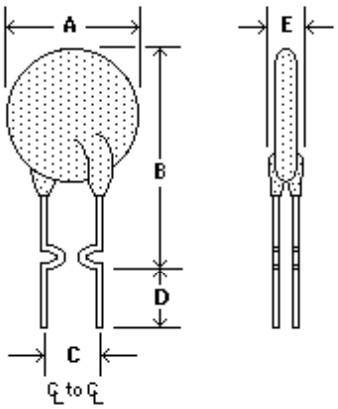


TABLE I. DIMENSIONS:

	A		B		C		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 AT 25°C HOLD	AMPS AT 25°C HOLD	TRIP	OHMS AT 25°C MIN	MAX	SECONDS AT 25°C, 2.5 A MAX	OHMS AT 25°C MAX	WATTS AT 25°C TYP
0.50	0.50	1.00	0.35	0.78	3.0	1.10	0.9

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 — 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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Specifications are subject to change without notice.
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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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