

## PolySwitch® PTC Devices

**Overcurrent Protection Device** 

PRODUCT: AHRF1500

DOCUMENT: SCD26086

REV LETTER: D REV DATE: MARCH 13, 2013

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### **Specification Status: Released**

### **Electrical Rating**

Voltage: 16V<sub>DC</sub> MAX Current: 100A MAX

Insulating Material:

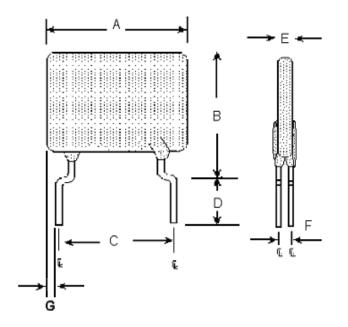
Cured, Flame Retardant Epoxy Polymer meets UL94 V-0 Requirements

Lead Material:

18 AWG Tin Plated Copper (1.0 mm [0.040] nom. diameter)

Marking:





#### TABLE I. INSTALLATION ENVELOPE DIMENSIONS:

	Α		В		С		D		E		F		G
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	TYP	MIN	MAX
mm:		23.5		28.7	9.4	10.9	7.6			3.5	1.4		7.82
in*:		(0.93)		(1.13)	(0.37)	(0.43)	(0.30)			(0.14)	(0.06)		(0.31)

<sup>\*</sup>Rounded off approximation

#### **TABLE II. PERFORMANCE RATINGS:**

17.022 111 210 01011/1001								
I HOLD CURREN		RENT	TIME TO	INI	TIAL	Ra MAX	NOMINAL	
RATED	RATINGS		TRIP	RESISTANCE		T CO IVIAA	TRIPPED POWER	
CURRENT	NT			VALUES			DISSIPATION	
AMPS	AMPS AT		SECONDS AT	OHMS		OHMS	WATTS AT	
AT 25°C	25°C		25°C,75A	AT 25°C		AT 25°C	25°C 16V	
HOLD	HOLD	TRIP	MAX	MIN	MAX	MAX	TYP	
15.0	15.0	33.0	20.0	0.0027	0.0063	0.0092	7.0	

Reference Documents: PS400, PS300 (reference for R<sub>1 MAX</sub>)

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

Halogen Free\*

Directive 2002/95/EC Compliant Directive 2000/53/EC Compliant





<sup>\*</sup> Halogen Free refers to: Br≤900ppm, Cl≤900ppm, Br+Cl≤1500ppm.



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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, 16V, 200A
Fault Current Durability	350 cycles, 16V/100A
End-of-life Mode Verification	1750 cycles, 16V/100A
Jump Start Endurance (see note 1)	3 cycles, 26V, 1 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

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