

# PolySwitch® PTC Devices

**Overcurrent Protection Device** 

**PRODUCT: AHRF100** 

DOCUMENT: SCD26631 REV LETTER: E

REV DATE: JULY 26,2016 PAGE NO.: 1 OF 2

### **Specification Status: Released**

Electrical Rating Voltage: 30V<sub>DC</sub> MAX

Current: 40A MAX

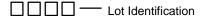
Insulating Material:

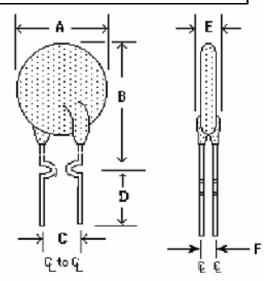
Cured, Flame Retardant Epoxy Polymer meets UL94 V-0 Requirements

Lead Material:

24 AWG Tin Plated Copper Clad Steel (0.51mm[0.020]nom. diameter)

Part Marking:





### **TABLE I. DIMENSIONS:**

	Α		В		С		D		Е		F
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	TYP
mm:		9.7		13.6	4.3	5.8	7.6			3.0	1.2
in*:		(0.38)		(0.54)	(0.17)	(0.23)	(0.30)			(0.12)	(0.05)

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

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

CURRENT RATINGS		TIME TO TRIP	RESIS	TIAL STANCE LUES	R <sub>a MAX</sub>	TRIPPED-STATE POWER DISSIPATION	
AMPS AT 25°C		SECONDS AT 25°C, 5.0A		HMS 25°C	OHMS AT 25°C	WATTS AT 25°C 16V	
HOLD	TRIP	MAX	MIN	MAX		TYP	
1.0	1.9	6.2	0.15	0.30	0.43	1.4	

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



HF

<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 for the detailed test procedures.

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