

# PolySwitch® PTC Devices

**Overcurrent Protection Device** 

PRODUCT: AHRL900

DOCUMENT: SCD29618 REV LETTER: A

REV DATE: AUGUST 7, 2020

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### **Specification Status: Released**

Electrical Rating Voltage: 16VDC MAX Current: 100A MAX

Insulating Material:

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

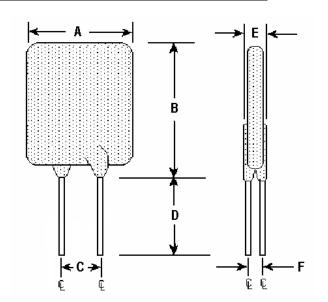
Lead Material:

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

Marking:

Manufacturer's Mark

X L9 and Part Identification



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

	Α		В		C		D		E		F
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	TYP
mm:	1	14.4	1	21.4	9.4	10.9	7.6	1	-	3.6	1.4
in*:		(0.57)		(0.84)	(0.37)	(0.43)	(0.30)			(0.14)	(0.06)

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

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

CURRENT		TIME TO TRIP	INITIAL		R <sub>1</sub> MAX	TRIPPED-STATE
RATIGNS			RESISTANCE			POWER
			VALUES			DISSIPATION
AMPS		SECONDS AT	OHMS		OHMS	WATTS AT
AT 25°C		25°C, 45.0A	AT 25°C		AT 25°C	25°C 16V
HOLD	TRIP	MAX	MIN	MAX		TYP
9.0	18.0	9.0	0.0046	0.0075	0.0098	5.0

Agency Recognitions: UL

Reference Documents: PS300, PS400 (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 

Halogen Free

Directive 2011/65/EU 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 for the detailed test procedures

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