

PolySwitch® PTC Devices

Overcurrent Protection Device

PRODUCT: AHRL1500

DOCUMENT: SCD29624

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 L15 and Part Identification

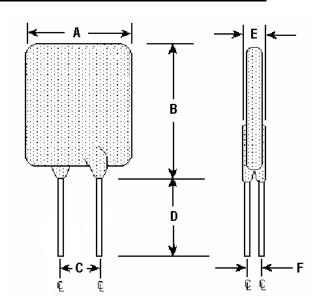


TABLE I. DIMENSIONS:

mm:	
in*:	

	4	l E	3	C	;	L)	l t	=	F
MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	TYP
	18.4		26.4	9.4	10.9	7.6			3.6	1.4
	(0.72)		(1.04)	(0.37)	(0.43)	(0.30)		-	(0.14)	(0.06)
*Rounded off approximation										

TABLE II. PERFORMANCE RATINGS:								
CURF	RENT	TIME TO TRIP	INITIAL		INITIAL		R ₁ MAX	TRIPPED-STATE
RATI	GNS	F		TANCE		POWER		
			VAL	UES		DISSIPATION		
AM	AMPS SECON		OHMS		OHMS	WATTS AT		
AT 2	5°C	25°C, 75.0A	AT 25°C		AT 25°C		AT 25°C	25°C 16V
HOLD	TRIP	MAX	MIN	MAX		TYP		
15.0	30.0	18.0	0.0029	0.0043	0.0056	7.0		

Agency Recognitions: UL

Reference Documents: PS300, PS400 (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 ELV Compliant Pb-Free Halogen Free

Halogen Free

Directive 2011/65/EU Compliant Directive 2000/53/EC Compliant





^{*} 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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