

PolySwitch® PTC Devices

Overcurrent Protection Device

PRODUCT: AHRL1000

DOCUMENT: SCD29619 REV LETTER: A

REV DATE: AUGUST 7, 2020

PAGE NO.: 1 OF 2

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 L10 and Part Identification

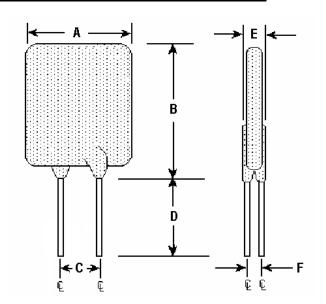


TABLE I. DIMENSIONS:

	Α		В		С		D		Е		F
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	TYP
mm:		14.4		22.4	9.4	10.9	7.6	-	-	3.6	1.4
in*:		(0.57)		(0.88)	(0.37)	(0.43)	(0.30)			(0.14)	(0.06)

^{*}Rounded off approximation

TABLE II. PERFORMANCE RATINGS:

CURRENT		TIME TO TRIP	INITIAL		R ₁ MAX	TRIPPED-STATE	
RATIGNS			RESISTANCE			POWER	
			VALUES			DISSIPATION	
AMPS		SECONDS AT	OHMS		OHMS	WATTS AT	
AT 25°C		25°C, 50.0A	AT 25°C		AT 25°C	25°C 16V	
HOLD	TRIP	MAX	MIN	MAX		TYP	
10.0	20.0	10.0	0.0042	0.0068	0.0090	5.4	

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



PolySwitch® PTC Devices

Overcurrent Protection Device

PRODUCT: AHRL1000

DOCUMENT: SCD29619 REV LETTER: A

REV DATE: AUGUST 7, 2020

PAGE NO.: 2 OF 2

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

Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and shall not be used for, any purpose (including, without limitation, military, aerospace, medical, lifesaving, life-sustaining or nuclear facility applications, devices intended for surgical implant into the body, or any other application in which the failure or lack of desired operation of the product may result in personal injury, death, or property damage) other than those expressly set forth in applicable Littelfuse product documentation. Warranties granted by Littelfuse shall be deemed void for products used for any purpose not expressly set forth in applicable Littelfuse documentation. Littelfuse shall not be liable for any claims or damages arising out of products used in applications not expressly intended by Littelfuse as set forth in applicable Littelfuse documentation. The sale and use of Littelfuse products is subject to Littelfuse Terms and Conditions of Sale, unless otherwise agreed by Littelfuse.