

## PolySwitch® PTC Devices

**Overcurrent Protection Device** 

PRODUCT: AHRL650

DOCUMENT: SCD29614 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:

20 AWG Tin Plated Copper (0.81 mm [0.032in.] nom. diameter)

#### Marking:

Manufacturer's Mark

 $\times$  L6.5 and Part Identification

Lot Identification

## **TABLE I. DIMENSIONS:**

	А		В		С		D		E		F
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	TYP
mm:		10.7		17.4	4.3	5.8	7.6			3.0	1.2
in*:	-	(0.42)		(0.69)	(0.17)	(0.23)	(0.30)			(0.12)	(0.05)

\*Rounded off approximation

### TABLE II. PERFORMANCE RATINGS:

CURRENT		TIME TO TRIP	INITIAL		R1 MAX	TRIPPED-STATE	
RATIGNS			RESISTANCE			POWER	
			VALUES			DISSIPATION	
AMPS		SECONDS AT	OHMS		OHMS	WATTS AT	
AT 25°C		25°C, 32.5A	AT 25°C		AT 25°C	25°C 16V	
HOLD	TRIP	MAX	MIN	MAX		TYP	
6.5	13.0	6.5	0.0095	0.0150	0.0225	3.3	

Agency Recognitions:ULReference Documents:PS300, PS400 (reference for R1 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



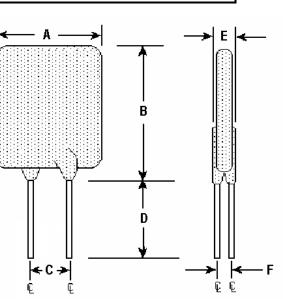






HF

\* 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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