

PolySwitch® PTC Devices

Overcurrent Protection Device

PRODUCT: AHRF450

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Specification Status: Released

Electrical Rating Voltage: 16V_{DC} MAX

Insulating Material: Cured, Flame Retardant Epoxy Polymer

Lead Material:

20 AWG Tin Plated Copper (0.8 mm [0.032] nom. diameter)

Part Marking:

——— Manufacturer's Mark

X H4.5 and Part Identification





TABLE I. INSTALLATION ENVELOPE DIMENSIONS:

	Α		В		С		D		E		F		G
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	TYP	MIN	MAX
mm:		10.4		15.6	4.3	5.8	7.6			3.0	1.2		3.94
in*:		(0.41)		(0.61)	(0.17)	(0.23)	(0.30)			(0.12)	(0.05)		(0.16)

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*Rounded off approximation

TABLE II. PERFORMANCE RATINGS:

CURRENT RATINGS		TIME TO TRIP	RESIS	TANCE	R _{а MAX}	TRIPPED-STATE POWER DISSIPATION	
AM AT 2	5°C	SECONDS AT 25°C, 22.5 A	AT	HMS 25°C	OHMS AT 25°C	WATTS AT 25°C	
HOLD	TRIP	MAX	MIN	MAX		TYP	
4.5	8.7	4.0	0.017	.036	0.054	3.6	

Reference Documents: Precedence: Effectivity: CAUTION: PS400, PS300 (reference for R_{1 MAX})

This specification takes precedence over documents referenced herein. Reference documents shall be the issue in effect on the date of invitation for bid. Operation beyond the rated voltage or current may result in rupture, electrical arcing or flame.







ELV Compliant



Halogen Free*



* 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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