

# PolySwitch® PTC Devices

**Overcurrent Protection Device** 

**PRODUCT: AGRF500** 

DOCUMENT: SCD25232

**REV LETTER: D** 

REV DATE: July 26, 2016 PAGE NO.: 1 OF 2

### **Specification Status: Released**

### Electrical Rating Voltage: 16Vpc MAX

Insulating Material:

Cured, Flame Retardant Epoxy Polymer

Lead Material:

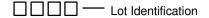
20 AWG Tin Plated Copper (0.8 mm [0.032] nom. diameter)

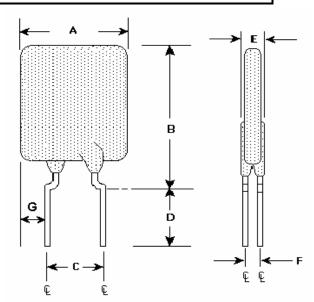
Part Marking:

Manufacturer's Mark

Manufacturer's Mark

and Part Identification





#### **TABLE I. INSTALLATION ENVELOPE DIMENSIONS:**

	Α		В		С		D		Е		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)

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

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

CURRENT RATINGS			TIME TO TRIP	INIT RESIST		R <sub>1 MAX</sub> 1 HR. POST TRIP RESISTANCE STANDARD TRIP	R <sub>A MAX</sub>	TRIPPED-STATE POWER DISSIPATION	
	AMPS AT 25°C		SECONDS AT 25°C, 25 A	OHMS AT 25°C		OHMS AT 25°C	OHMS AT 25°C	WATTS AT 25°C	
HOLD AT	HOLD AT	TRIP	MAX	MIN	MAX	, <b>2</b> 0 <b>0</b>	711 20 0	TYP	
R <sub>1 MAX</sub>	R <sub>A MAX</sub>								
5.0	4.3	9.4	2.5	0.014	0.024	0.034	0.048	2.7	

Reference Documents: PS400, PS300 (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\*

Directive 2002/95/EC Compliant

Directive 2000/53/EC Compliant



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:

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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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