### Tyco / Electronics Raychem Circuit Protection

308 Constitution Drive Menlo Park, CA 94025-1164

Phone: 800-227-4856 Fax: 800-227-4866

# PolySwitch® PTC Devices

**Overcurrent Protection Device** 

PRODUCT: AGRF1100

DOCUMENT: SCD 25238 PCN: D14148

REV LETTER: A

REV DATE: OCTOBER 28, 2004

PAGE NO.: 1 OF 2

## **Specification Status: RELEASED**

Electrical Rating Voltage: 16V<sub>pc</sub> MAX

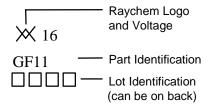
Insulating Material:

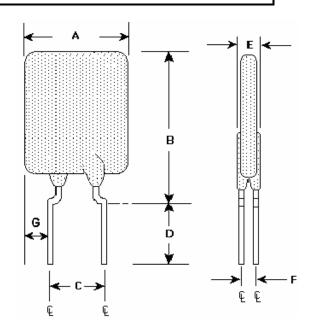
Cured, Flame Retardant Epoxy Polymer

Lead Material:

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

Part Marking:





#### 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:		17.5		26.5	4.3	5.8	7.6			3.0	1.2		7.47
in*:		(0.69)		(1.04)	(0.17)	(0.23)	(0.30)			(0.12)	(0.05)		(0.294)

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

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

CURRENT RATINGS			TIME TO TRIP	INITIAL RESISTANCE		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 HOLD HOLD TRIP AT AT			SECONDS AT 25°C, 55 A MAX	OHMS AT 25°C MIN MAX		OHMS AT 25°C	OHMS AT 25°C	WATTS AT 25°C TYP	
11.0	10.5	20.3	7.5	0.0033	0.0060	0.0089	0.0093	3.7	

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** 

Directive 2002/95/EC Compliant Directive 2000/53/EC Compliant



© 2004 Tyco Electronics Corporation. All rights reserved.

### Tyco / Electronics Raychem Circuit Protection

308 Constitution Drive Menlo Park, CA 94025-1164 Phone: 800-227-4856

Fax: 800-227-4866

# PolySwitch® PTC Devices

**Overcurrent Protection Device** 

PRODUCT: AGRF1100

DOCUMENT: SCD 25238 PCN: D14148 REV LETTER: A

REV DATE: OCTOBER 28, 2004

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