

308 Constitution Drive Menlo Park, CA USA www.circuitprotection.com

PolySwitch® **PTC Devices**

Overcurrent Protection Device

PRODUCT: AGRF1200

DOCUMENT: SCD25239

REV LETTER: D

REV DATE: MARCH 12, 2013

PAGE NO.: 1 OF 2

Specification Status: Released

Electrical Rating

Voltage: 16V_{DC} MAX

Insulating Material:

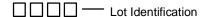
Cured, Flame Retardant Epoxy Polymer

Lead Material:

18 AWG Tin Plated Copper (1.0 mm [0.040] nom. diameter)

Part Marking:

 Manufacturer's Mark XX G12 and Part Identification



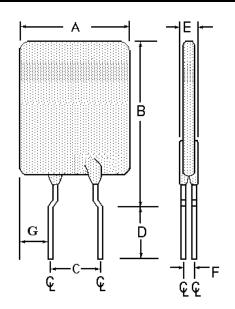


TABLE I. INSTALLATION ENVELOPE DIMENSIONS:

| | Α | | В | | С | | D | | Е | | F | G | |
|------|-----|--------|-----|--------|--------|--------|--------|-----|-----|--------|--------|-----|---------|
| | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | TYP | MIN | MAX |
| mm: | | 17.5 | | 28.8 | 9.4 | 10.9 | 7.6 | | | 3.5 | 1.4 | | 4.83 |
| in*: | | (0.69) | | (1.14) | (0.37) | (0.43) | (0.30) | | | (0.14) | (0.06) | | (0.190) |

^{*}Rounded off approximation

TABLE II. PERFORMANCE RATINGS:

| _ | TABLE III ERI ORIII AROC. | | | | | | | |
|---|---------------------------|--------------------------------|--------------------------------|--------|-----------------|--|------------------------|---------------------------------------|
| CURRENT RATINGS | | | TIME TO INITIAL TRIP RESISTANC | | | R _{1 MAX} 1 HR. POST TRIP RESISTANCE STANDARD TRIP | R _{A MAX} | TRIPPED-STATE POWER DISSIPATION |
| AMPS AT 25°C HOLD HOLD TRIP AT AT R _{1 MAX} R _{A MAX} | | SECONDS AT 25℃, 60 A MAX | OHI AT 2 MIN | | OHMS AT 25°C | OHMS AT 25°C | WATTS AT 25℃ TYP | |
| 12.0 | 11.5 | 22.1 | 8.0 | 0.0030 | 0.0057 | 0.0086 | 0.0091 | 4.2 |

PS400, PS300 (reference for $R_{1 \text{ MAX}}$) Reference Documents:

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





^{*} 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