

**Specification Status: Released**

**Electrical Rating**

**Voltage: 16V<sub>DC</sub> MAX**

Insulating Material:

Cured, Flame Retardant Epoxy Polymer

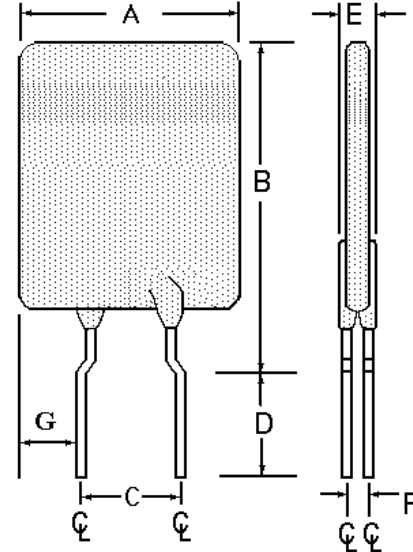
Lead Material:

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

Part Marking:

— Manufacturer's Mark  
XX G12 and Part Identification

□□□□ — Lot Identification



**TABLE I. INSTALLATION ENVELOPE DIMENSIONS:**

|      | A   |        | B   |        | C      |        | D      |     | E   |        | 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:**

| CURRENT RATINGS    |                    |      | TIME TO TRIP                 | INITIAL RESISTANCE |        | R <sub>1</sub> MAX<br>1 HR. POST TRIP<br>RESISTANCE<br>STANDARD TRIP | R <sub>A</sub> MAX | TRIPPED-STATE<br>POWER<br>DISSIPATION |
|--------------------|--------------------|------|------------------------------|--------------------|--------|--|--------------------|---------------------------------------|
| HOLD AT            | HOLD AT            | TRIP | SECONDS AT 25°C, 60 A<br>MAX | OHMS AT 25°C       |        | OHMS AT 25°C   | OHMS AT 25°C       | WATTS AT 25°C<br>TYP                  |
| R <sub>1</sub> MAX | R <sub>A</sub> MAX |      |                              | MIN                | MAX    |  |                    |                                       |
| 12.0               | 11.5               | 22.1 | 8.0                          | 0.0030             | 0.0057 | 0.0086   | 0.0091             | 4.2                                   |

Reference Documents:

PS400, PS300 (reference for R<sub>1</sub> 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

Halogen Free\*

Directive 2002/95/EC  
Compliant

Directive 2000/53/EC  
Compliant



\* Halogen Free refers to: Br≤900ppm, Cl≤900ppm, Br+Cl≤1500ppm.

**TABLE III. AUTOMOTIVE SPECIFIC STRESS TESTS AND TEST CONDITIONS:**

| ELECTRICAL STRESS TESTS                | TEST CONDITIONS (see note 2)     |
|--|----------------------------------|
| ESD Voltage Withstand<br>(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<br>(see note 1)   | 3 cycles, 26V, 1 minute duration |
| Load Dump Endurance<br>(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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