

Glass Passivated 3 Phase Bridge Rectifier

multicomp PRO



Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Ideal for printed circuit boards

Mechanical Data

| | |
|-------------------|--|
| Case | : Epoxy case with heat sink laterally mounted in the bridge encapsulation |
| Terminals | : Plated leads solderable per MIL-STD-202, Method 208 |
| Polarity | : As Marked on Body |
| Weight | : 21 grams(approx.) |
| Mounting Position | : Bolt down on heatsink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency. |
| Mounting Torque | : 2 N.m |

Maximum Ratings And Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| Voltage Ratings | | | | | | | Unit |
|--|--------------|----------------|-----------|-----------|-----------|-----------|------------------|
| Characteristics | Symbol | SMT2508GW | SMT2510GW | SMT2512GW | SMT2514GW | SMT2516GW | |
| Peak Repetitive Voltage | V_{RRM} | | | | | | V |
| Working Peak Reverse Voltage | V_{RWM} | 800 | 1000 | 1200 | 1400 | 1600 | |
| DC Blocking Voltage | V_R | | | | | | |
| Peak Non-Repetitive Reverse Voltage | V_{RSM} | 900 | 1100 | 1300 | 1500 | 1700 | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 560 | 700 | 840 | 980 | 1120 | |
| Forward Conduction | | | | | | | |
| Characteristics | Symbol | SMT25GW Series | | | | | Unit |
| Maximum Average Forward Rectified Current @ $T_c = 55^\circ C$ | I_o | 25 | | | | | A |
| Peak Forward Surge Current $t=8.3ms$ at 60Hz | I_{FSM} | 320 | | | | | |
| I^2t Rating for fusing | I^2t | 840 | | | | | A ² S |
| Maximum Forward Voltage drop per element at 12.5A Peak | V_F | 1.1 | | | | | V |
| Reverse peak current $V_R=V_{RRM}@T_J=25^\circ C$ $V_R=V_{RRM}@T_J=150^\circ C$ | I_R | 5 3 | | | | | μA mA |
| RMS Isolation Voltage from Case to Lead | V_{ISO} | 2500 | | | | | V |
| Thermal Characteristics | | | | | | | |
| Operating Temperature Range | T_J | -40 to +150 | | | | | °C |
| Storage Temperature Range | T_{STG} | -40 to +125 | | | | | |

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
Element14.com/multicomp-pro

multicomp PRO

Glass Passivated 3 Phase Bridge Rectifier

multicomp PRO

Rating and Characteristic Curves

FIG.1-MAXIMUM FORWARD SURGE CURRENT

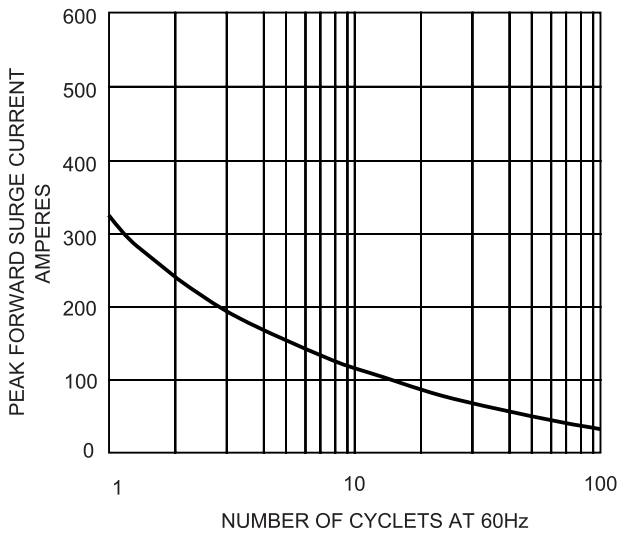


FIG.2- DERATING CURVE OUTPUT RECTIFIED CURRENT

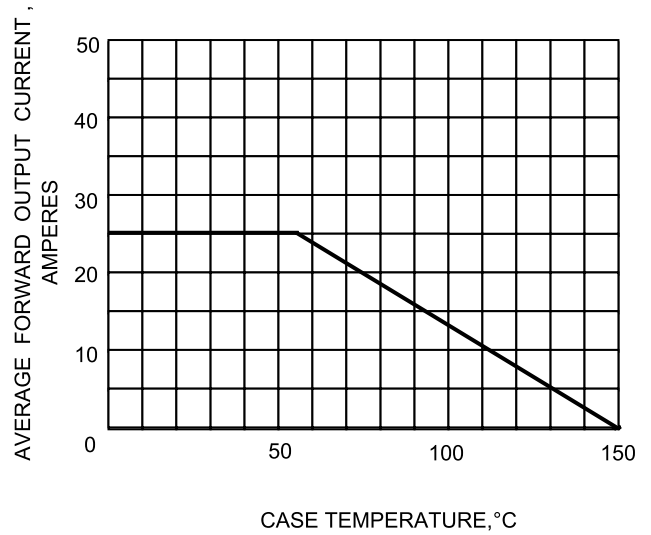


FIG.3-TYPICAL FORWARD CHARACTERISTICS

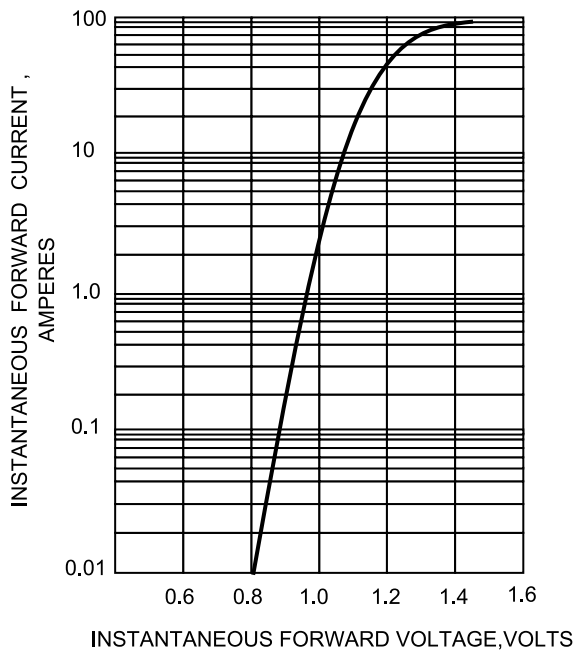
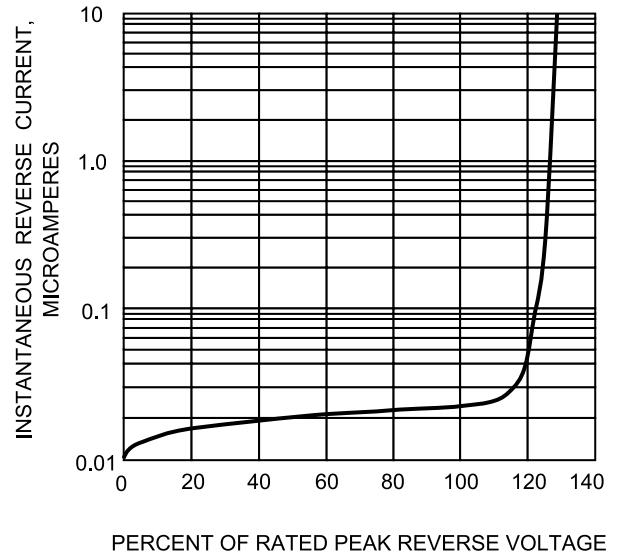


FIG.4-TYPICAL REVERSE CHARACTERISTICS

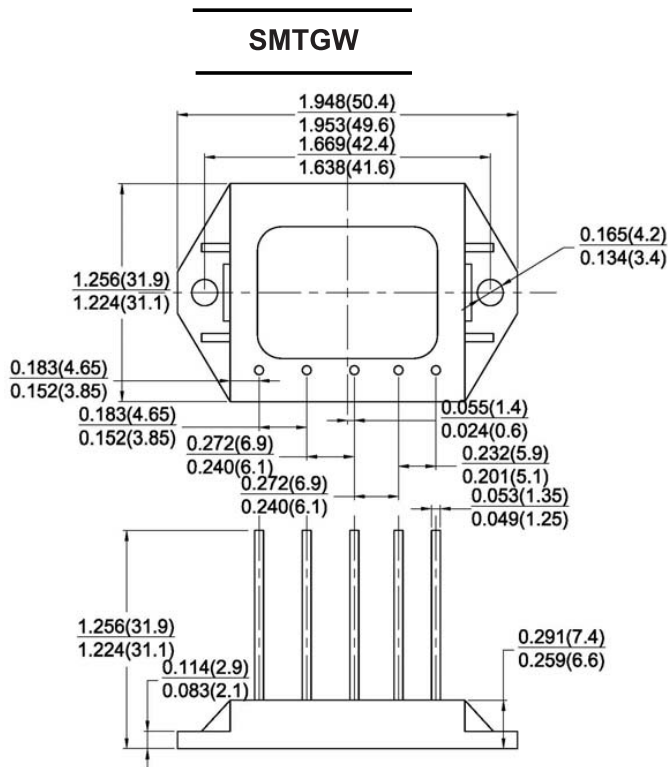


multicomp PRO

Glass Passivated 3 Phase Bridge Rectifier

multicomp PRO

Dimension:



Dimensions : Inches (Millimetres)

Part Number Table

| Description | Part Number |
|--|-------------|
| Three Phase Bridge 25A 800V SMTGW Package | SMT2508GW |
| Three Phase Bridge 25A 1000V SMTGW Package | SMT2510GW |
| Three Phase Bridge 25A 1200V SMTGW Package | SMT2512GW |
| Three Phase Bridge 25A 1400V SMTGW Package | SMT2514GW |
| Three Phase Bridge 25A 1600V SMTGW Package | SMT2516GW |

Important Notice : This data sheet and its contents (the "Information") belong to the members of the AVNET group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp Pro is the registered trademark of Premier Farnell Limited 2019.

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
Element14.com/multicomp-pro

multicomp PRO