# GU2A THRU GU2M

## SURFACE MOUNT FAST SWITCHING RECTIFIER

**VOLTAGE：50 TO 1000V** **CURRENT：2.0A**

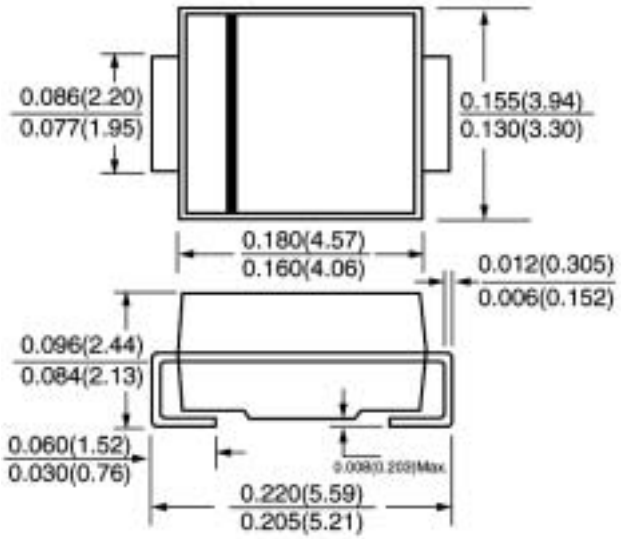
## FEATURE

Ideal for surface mount pick and place application
Low profile package
Built-in strain relief
High surge capability
High temperature soldering guaranteed
260°C/10sec/at terminals
Glass passivated chip
Fast recovery time for high efficiency

## MECHANICAL DATA

Terminal：Plated axial leads solderable per MIL-STD 202E, method 208C
Case：Molded with UL-94 class V-0 recognized Flame Retardant Epoxy
Polarity：color band denotes cathode

**SMB／DO-214AA**




Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

| | SYMBOL | GU 2A | GU 2B | GU 2D | GU 2G | GU 2J | GU 2K | GU 2M | units |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | Vrrm | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | Vrms | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking Voltage | Vdc | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified at $T_L$ =100°C | If(av) | 2.0 | | | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load | Ifsm | 50.0 | | | | | | | A |
| Maximum Instantaneous Forward Voltage at rated forward current 2.0A | Vf | 1.0 | | | 1.4 | 1.7 | | | V |
| Maximum DC Reverse Current Ta =25°C<br>at rated DC blocking voltage Ta =125°C | Ir | 10.0<br>500.0 | | | | | | | μA<br>μA |
| Maximum Reverse Recovery Time (Note1 ) | Trr | 50 | | | | 75 | | | nS |
| Typical Junction Capacitance (Note 2) | Cj | 50.0 | | | | | | | pF |
| Typical Thermal Resistance (Note 3) | R(jl) | 20.0 | | | | | | | °C/W |
| Storage and Operating Junction Temperature | Tstg, Tj | -50 to +150 | | | | | | | °C |

Note：

1. Reverse Recovery Condition If =0.5A, Ir =1.0A, Irr =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to terminal mounted on 5×5mm copper pad area

## RATINGS AND CHARACTERISTIC CURVES GU2A THRU GU2M

[1]

**Fig. 1 — Forward Current Derating Curve**

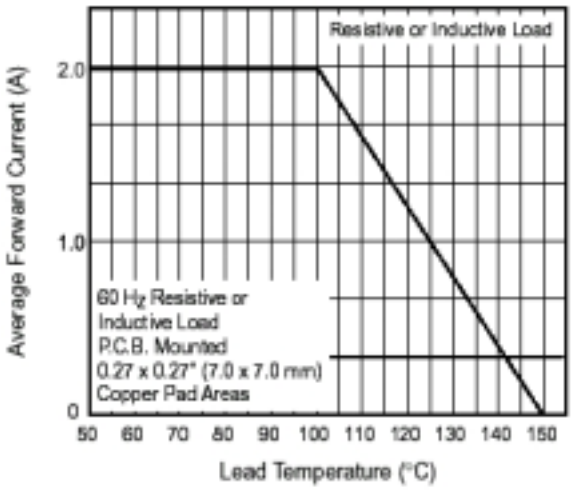



**Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current**

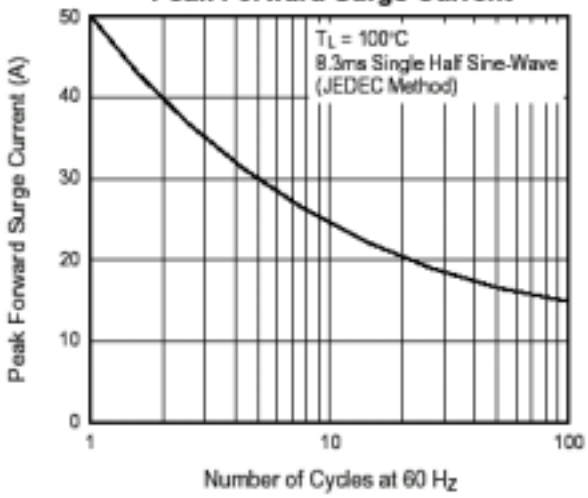



**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

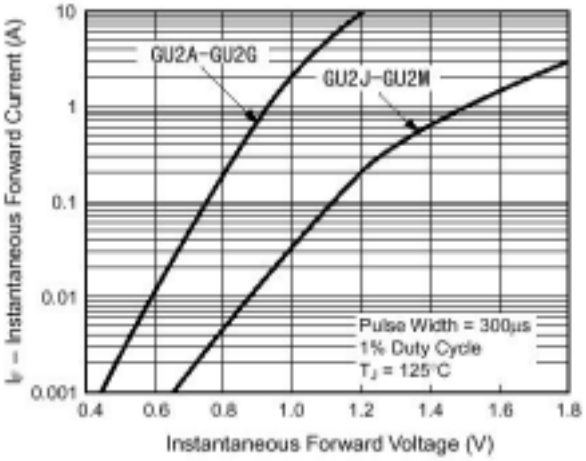



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**

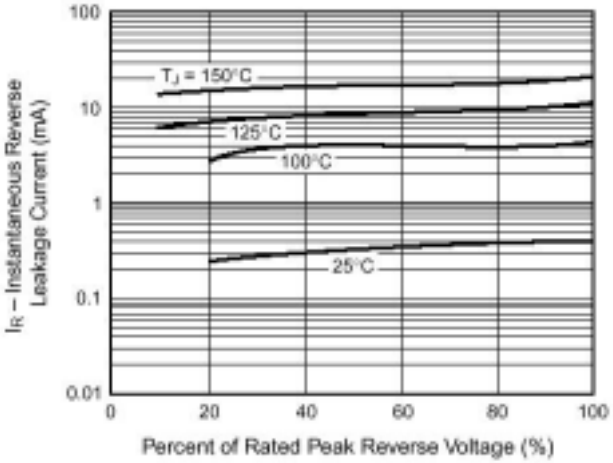
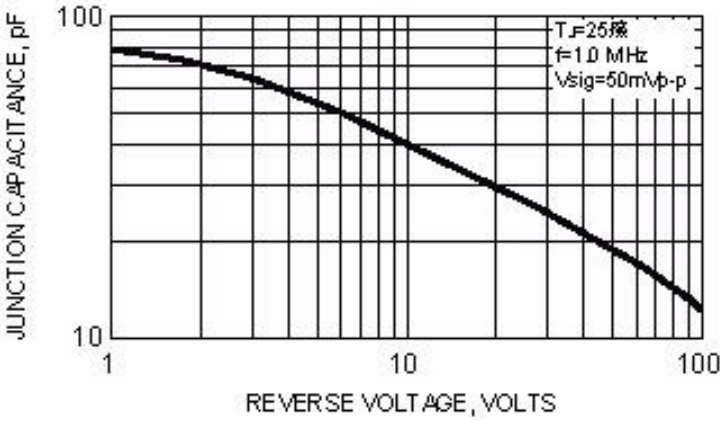



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**




[1] Rev.A5, 4-Jan-06