

GS3AA - GS3MA

SURFACE MOUNT SILICON RECTIFIER DIODES

VOLTAGE RANGE: 50 - 1000V CURRENT: 3.0 A

Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-O

Mechanical Data

Case: SMA/DO-214AC, Molded Plastic
 Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026

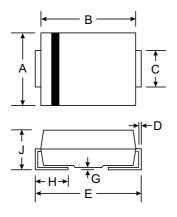
Polarity: Cathode Band or Cathode Notch

Marking: Type Number

Weight: 0.064 grams (approx.)







| SMA(DO-214AC) | | | | | | |
|----------------------|------|------|--|--|--|--|
| Dim | Min | Max | | | | |
| Α | 2.29 | 2.92 | | | | |
| В | 4.00 | 4.60 | | | | |
| С | 1.27 | 1.63 | | | | |
| D | 0.15 | 0.31 | | | | |
| E | 4.80 | 5.59 | | | | |
| G | 0.10 | 0.20 | | | | |
| Н | 0.76 | 1.52 | | | | |
| J | 2.01 | 2.62 | | | | |
| All Dimensions in mm | | | | | | |

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic | | Symbol | GS3AA | GS3BA | GS3DA | GS3GA | GS3JA | GS3KA | GS3MA | Unit |
|---|---|--------------------|-------------|-------|-------|-------|-------|-------|-------|----------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | | VRRM VRWM VR | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| RMS Reverse Voltage | | VR(RMS) | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Rectified Output Current @T _L = 75°C | | lo | 3.0 | | | | | | | Α |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | | Ігѕм | 100 | | | | | | | А |
| Forward Voltage | e @I _F = 3.0A | | 1.20 | | | | | | | V |
| Peak Reverse Current At Rated DC Blocking Voltage | @T _A = 25°C @T _A = 125°C | IRM | 5.0 250 | | | | | | | μΑ |
| Reverse Recovery Time (Note 1) | | trr | 2.5 | | | | | | | μS |
| Typical Junction Capacitance (Note 2) | | Cj | 60 | | | | | | | pF |
| Typical Thermal Resistance (Note 3) | | $R_{	heta}JL$ | 13 | | | | | | °C/W | |
| Operating and Storage Temperature Range | | Tj, TSTG | -65 to +150 | | | | | | | °C |

Note: 1. Measured with $I_F = 0.5A$, $I_R = 1.0A$, $I_{rr} = 0.25A$,

- 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.
- 3. Mounted on P.C. Board with 8.0mm² land area.



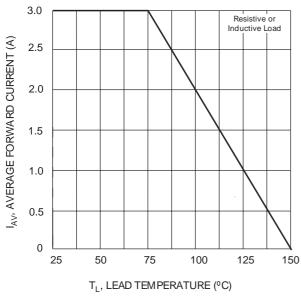


Fig. 1 Forward Current Derating Curve

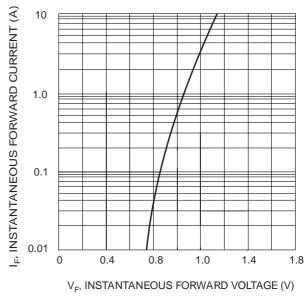
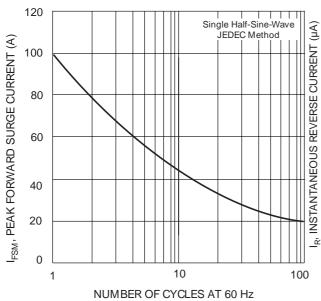


Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60 Hz
Fig. 3 Forward Surge Current Derating Curve

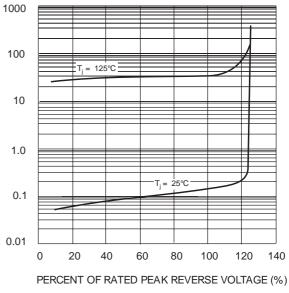


Fig. 4 Typical Reverse Characteristics