GS1VU
1.0 AMP Surface Mount Passivated Rectifiers

## Features

- Glass Passivated Die Construction
- Low forward voltage drop
- High current capability
- High reliability
- Metal silicon junction,majority carrier conduction
- Plastic Case Material has UL Flammability Classication Rating 94V-0

Mechanical Data

- Case: Molded plastic SMA
- Terminals: Plated leads solderable per MIL-STD-750,Method 2026 guaranteed
- Polarity: Color band dentes cathode end
- Mounting Position: Any
- Making: Type Number

Case: SMA(DO-214AC)


Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at $25^{\circ} \mathrm{C}$ ambient temperature unless otherwise specified
Single phase,half wave, 60 Hz , resistive or inductive load
For capacitive load derate current by $20 \%$

| Type Number (Note 1) | SYMBOL | GS1VU | Unit |
| :---: | :---: | :---: | :---: |
| Maximum Recurrent Peak Reverse Voltage | VRRM | 2000 | V |
| Maximum RMS Voltage | $V_{\text {RMS }}$ | 1400 | V |
| Maximum DC Blocking Voltage | V ${ }_{\text {c }}$ | 2000 | V |
| Average Rectified Output Current $@ T_{\mathrm{L}}=100^{\circ} \mathrm{C}$ | $\mathrm{IF}(\mathrm{AV})$ | 1.0 | A |
| Peak Forward Surge Current 8.3 ms Single half sine-wave superimposed on rated load (JEDEC Method) | Ifsm | 35 | A |
| Forward Voltage @ IF=1.0A | V ${ }_{\text {FM }}$ | 1.2 | V |
| Peak Reverse Current @ $\mathrm{T}_{\mathrm{A}}=25^{\circ} \mathrm{C}$ | r | 5.0 | A |
| At Rated DC Blocking Voltage @ $\mathrm{T}_{\mathrm{A}}=125^{\circ} \mathrm{C}$ | IR | 50 | UA |
| $\mathrm{I}^{2} \mathrm{t}$ Rating for fusing ( $\mathrm{t}<8.3 \mathrm{~ms}$ ) | $1^{2} \mathrm{t}$ | 5.08 | $A^{2} \mathrm{~s}$ |
| Typical Junction Capacitance (Note 2) | CJ | 5.5 | pF |
| Typical Thermal Resistance Junction to Ambient(Note 3) | Reja | 110 | ${ }^{\circ} \mathrm{C} / \mathrm{W}$ |
| Operating Temperature Range | TJ | -55 to +150 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | Tstg | -55 to +150 | ${ }^{\circ} \mathrm{C}$ |

Note:

1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0 V D.C
2. Device mounted on FR-4 substrate, $1^{\prime * *} 1$ ", $20 z$, single-sided, PC boards with $0.1^{1 " *} 0.15$ " copper pad.

FIG.1MAXIMUM AVERAGE FORWARD CURRENT DERATING


FIG.3MAXIMUM NON-REPEITIVE SURGE CURRENT


FIG. 5 MOUNTING PAD LAYOUT

FIG.2-TYPICAL FORWARD CHARACTERISTICS


Fig. 4 Typical Reverse Characteristics (per element)


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