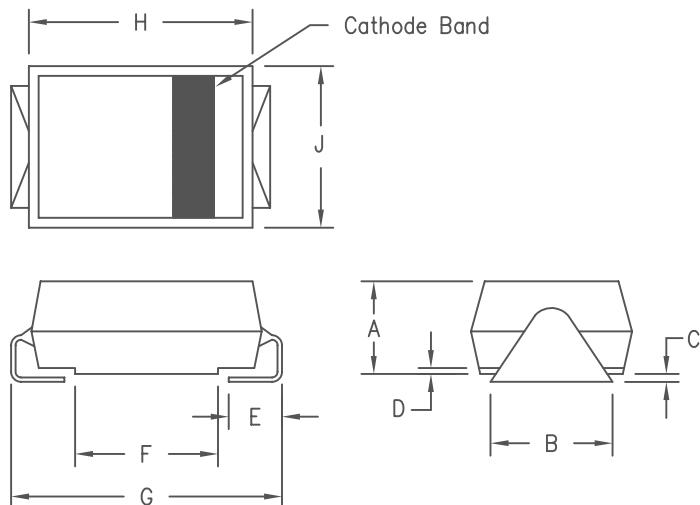


# 1 Amp Standard Recovery Rectifier GS1A — GS1M



| Dim. | Inches  |         | Millimeter |         | Notes |
|------|---------|---------|------------|---------|-------|
|      | Minimum | Maximum | Minimum    | Maximum |       |
| A    | .078    | .115    | 1.98       | 2.95    |       |
| B    | .067    | .089    | 1.70       | 2.25    |       |
| C    | .002    | .008    | 0.05       | 0.20    |       |
| D    | ---     | 0.02    | ---        | 0.51    |       |
| E    | .035    | .055    | 0.89       | 1.40    |       |
| F    | .065    | .096    | 1.65       | 2.45    |       |
| G    | .205    | .224    | 5.21       | 5.69    |       |
| H    | .160    | .180    | 4.06       | 4.57    |       |
| J    | .100    | .112    | 2.57       | 2.84    |       |

DO-214AC  
(SMAJ) (High Profile)

| Microsemi Catalog Number | Working Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|------------------------------|---------------------------------|
| GS1A                     | 50V                          | 50V                             |
| GS1B                     | 100V                         | 100V                            |
| GS1D                     | 200V                         | 200V                            |
| GS1G                     | 400V                         | 400V                            |
| GS1J                     | 600V                         | 600V                            |
| GS1K                     | 800V                         | 800V                            |
| GS1M                     | 1000V                        | 1000V                           |

- 150°C Junction Temperature
- Low thermal resistance

### Electrical Characteristics

|                              |                    |  |
|------------------------------|--------------------|--|
| Average forward current      | $I_{F(AV)}$ 1 Amp  | $T_L = 75^\circ\text{C}, V_R = V_{RRM}$        |
| Maximum surge current        | $I_{FSM}$ 30 Amps  | 8.3ms, half sine                               |
| Max peak forward voltage     | $V_{FM}$ 1.1 Volts | $I_{FM} = 1\text{A}; T_J = 25^\circ\text{C}^*$ |
| Max peak reverse voltage     | $V_{RRM}$ 10 uA    | $V_{RRM}, T_J = 25^\circ\text{C}$              |
| Max peak reverse current     | $I_{RM}$ 50 uA     | $V_{RRM}, T_J = 125^\circ\text{C}^*$           |
| Typical junction capacitance | $C_J$ 25 pF        | $V_R = 5.0\text{V}, T_J = 25^\circ\text{C}$    |

\*Pulse test: Pulse width 300 usec, Duty cycle 2%

### Thermal and Mechanical Characteristics

|   |                 |                |
|---|-----------------|----------------|
| Storage temperature range                 | $T_{STG}$       | -55°C to 150°C |
| Operating temperature range               | $T_J$           | -55°C to 150°C |
| Max thermal resistance – Junction to Lead | $R_{\theta JL}$ | 15°C/W         |



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05-01-07 Rev. 2

# GS1A — GS1M

Figure 1  
Typical Forward Characteristics

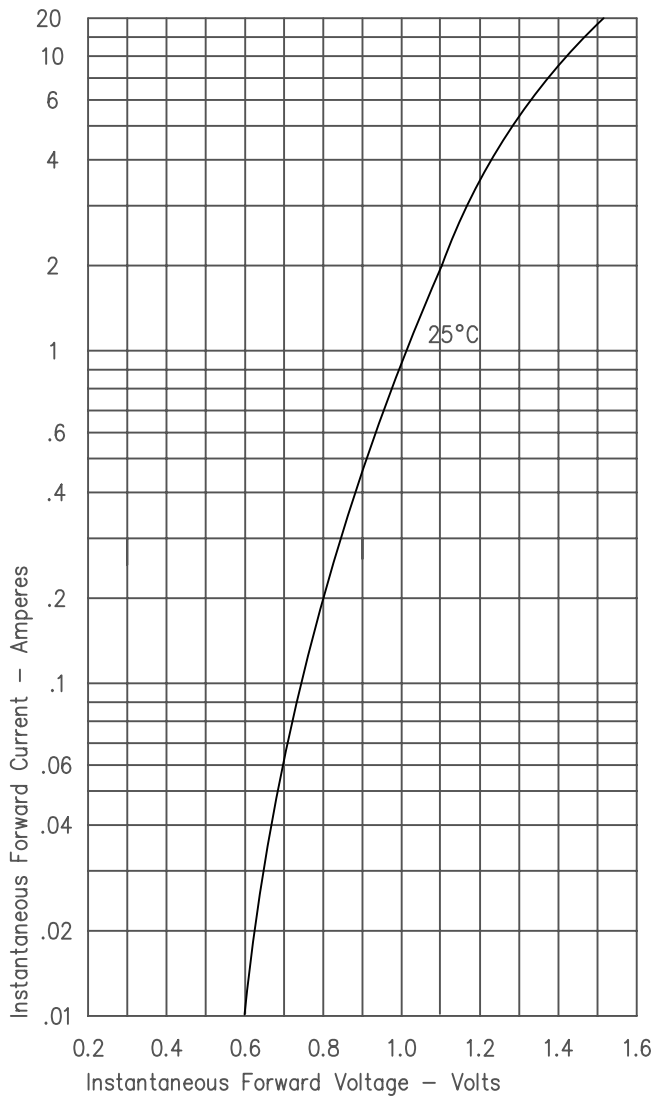


Figure 2  
Typical Junction Capacitance

