

Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability



DO-214AC (SMA)

Mechanical Data

- Case: SMA molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- High temperature soldering guaranteed: 260°C/10 seconds
- Polarity: Cathode line denotes the cathode end
- Mounting position: Any

Maximum Ratings & Electrical Characteristics

(Ratings at $T_A=25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Value | Units |
|---------------------------------------------------------|-----------------|-------------------------|------------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 3000 | V |
| RMS Reverse Voltage | V_{RMS} | 2100 | V |
| DC Blocking Voltage | V_{DC} | 3000 | V |
| Maximum Average Forward Output Current | $I_{F(AV)}$ | 1 | A |
| Peak Forward Surge Current, 8.3ms Single Half-Sine-Wave | I_{FSM} | 30 | A |
| Rating for Fusing ($t < 8.3\text{ms}$) | I^2t | 3.5 | A^2sec |
| Maximum Instantaneous Forward Voltage @ 1A | V_F | 2.2 | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I_R | $T_A=25^\circ\text{C}$ | 5 |
| | | $T_A=125^\circ\text{C}$ | 50 |
| Typical Thermal Resistance ¹ | $R_{\theta JA}$ | 70 | $^\circ\text{C/W}$ |
| | $R_{\theta JC}$ | 25 | |
| | $R_{\theta JL}$ | 30 | |
| Operating Junction Temperature Range | T_J | -55 to +150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | $^\circ\text{C}$ |

Note:

1. Units mounted on PCB with 10mm x 20mm x 0.1mm copper pads.

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

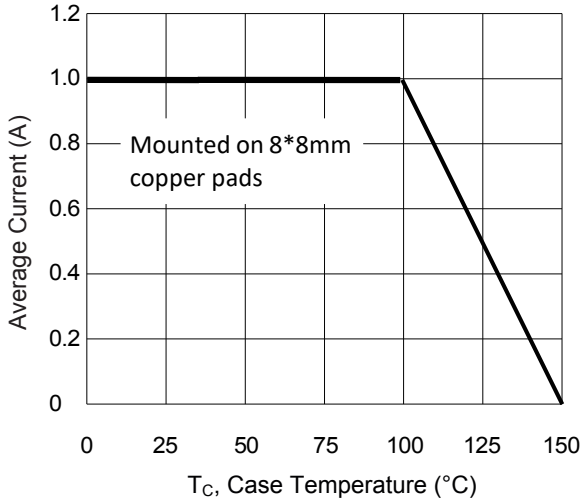


Figure 1. Forward Current Derating Curve

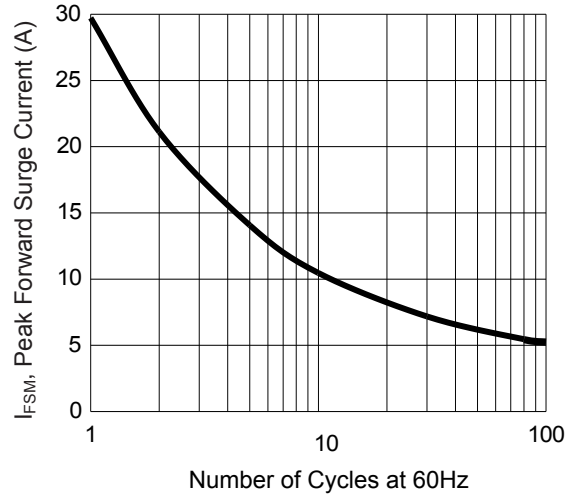


Figure 2. Surge Current Derating Curve

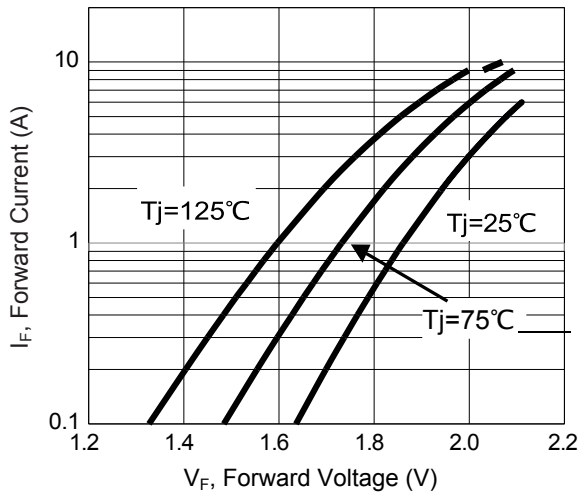


Figure 3. Typical Forward Voltage Characteristics

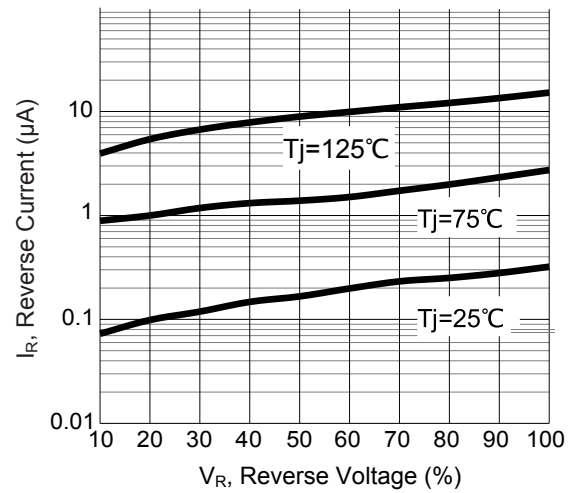
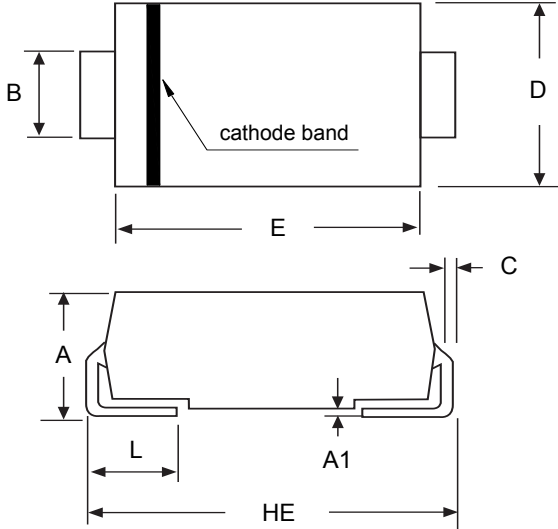


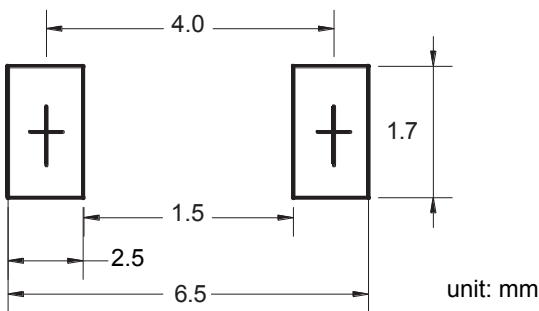
Figure 4. Typical Reverse Characteristics

Package Outline Dimensions DO-214AC (SMA)



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 1.900 | 2.440 | 0.075 | 0.096 |
| A1 | - | 0.203 | - | 0.008 |
| B | 1.270 | 1.700 | 0.050 | 0.067 |
| C | 0.152 | 0.305 | 0.006 | 0.012 |
| D | 2.250 | 2.920 | 0.090 | 0.115 |
| E | 3.990 | 4.750 | 0.157 | 0.187 |
| L | 0.760 | 1.520 | 0.030 | 0.060 |
| HE | 4.800 | 5.660 | 0.189 | 0.222 |

Recommended Pad Layout



Order Information

| Device | Package | Marking | Carrier | Quantity |
|---------|----------------|---------|-------------|-----------------|
| GMF3000 | DO-214AC (SMA) | MF | Tape & Reel | 7,500pcs / Reel |

For more information, please contact us at: inquiry@goodarksemi.com