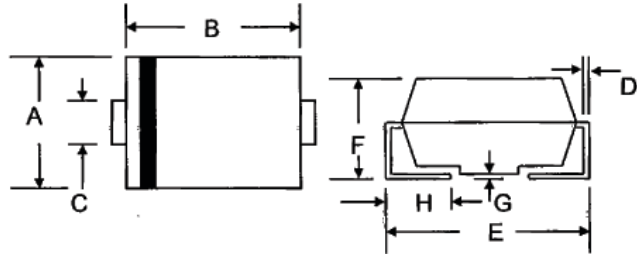


## 1.0A SURFACE MOUNT STANDARD DIODE

### Features

- Diffused Junction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-O



### Mechanical Data

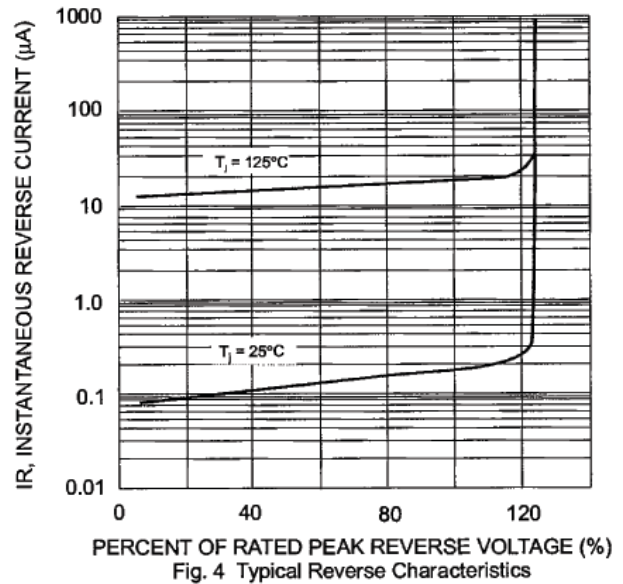
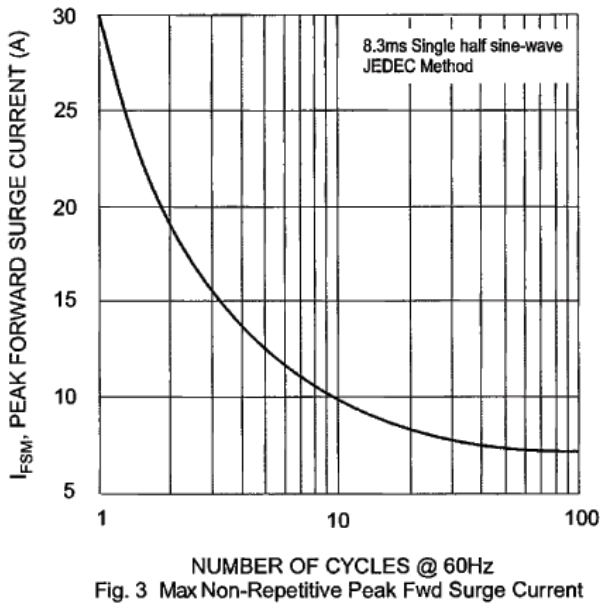
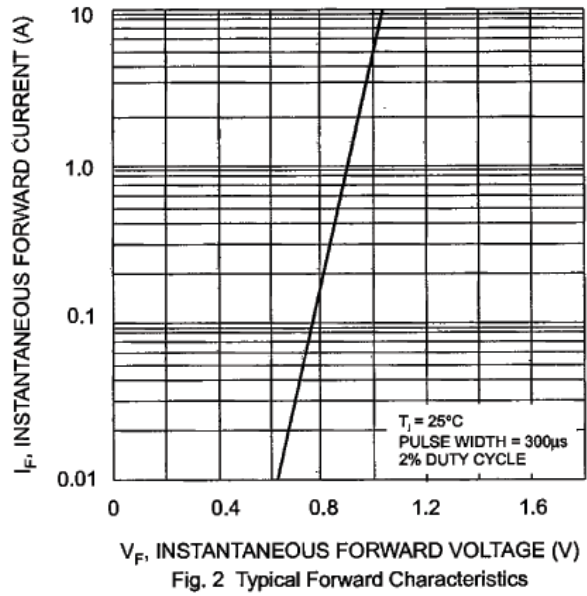
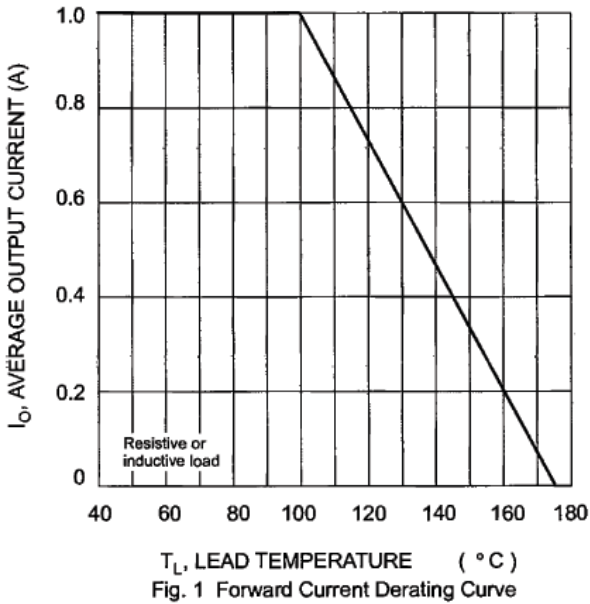
- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

| SMA/DO-214AC         |       |       |
|----------------------|-------|-------|
| Dim                  | Min   | Max   |
| A                    | 2.29  | 2.92  |
| B                    | 4.00  | 4.60  |
| C                    | 1.27  | 1.90  |
| D                    | 0.152 | 0.305 |
| E                    | 4.80  | 5.30  |
| F                    | 2.00  | 2.44  |
| G                    | 0.051 | 0.203 |
| H                    | 0.76  | 1.52  |
| All Dimensions in mm |       |       |

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

| Characteristic                                                                                                        | Symbol   | GS1A        | GS1B | GS1D | GS1G | GS1J | GS1K | GS1M | Unit |
|-----------------------------------------------------------------------------------------------------------------------|----------|-------------|------|------|------|------|------|------|------|
| Peak Repetitive Reverse Voltage                                                                                       | VRRM     |             |      |      |      |      |      |      |      |
| Working Peak Reverse Voltage                                                                                          | VRWM     | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | V    |
| DC Blocking Voltage                                                                                                   | VR       |             |      |      |      |      |      |      |      |
| RMS Reverse Voltage                                                                                                   | VR(RMS)  | 35          | 70   | 140  | 280  | 420  | 560  | 700  | V    |
| Average Rectified Output Current @TL = 100°C                                                                          | Io       | 1.0         |      |      |      |      |      |      | A    |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on<br>rated load (JEDEC Method) | IFSM     | 30          |      |      |      |      |      |      | A    |
| Forward Voltage @IF = 1.0A                                                                                            | VFM      | 1.10        |      |      |      |      |      |      | V    |
| Peak Reverse Current @TA = 25°C                                                                                       | IRM      | 5.0         |      |      |      |      |      |      | μA   |
| At Rated DC Blocking Voltage @TA = 125°C                                                                              |          | 200         |      |      |      |      |      |      |      |
| Reverse Recovery Time (Note 1)                                                                                        | trr      | 2.5         |      |      |      |      |      |      | μS   |
| Typical Junction Capacitance (Note 2)                                                                                 | Cj       | 15          |      |      |      |      |      |      | pF   |
| Typical Thermal Resistance (Note 3)                                                                                   | RθJL     | 30          |      |      |      |      |      |      | °C/W |
| Operating and Storage Temperature Range                                                                               | Tj, TSTG | -65 to +175 |      |      |      |      |      |      | °C   |

Note: 1. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>rr</sub> = 0.25A,  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.  
3. Mounted on P.C. Board with 8.0mm<sup>2</sup> land area.

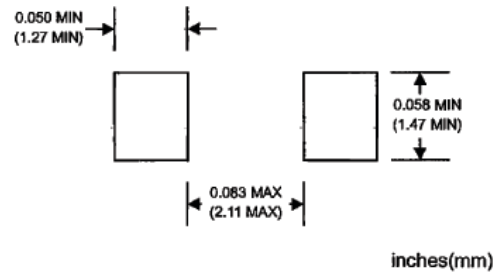


## MARKING INFORMATION



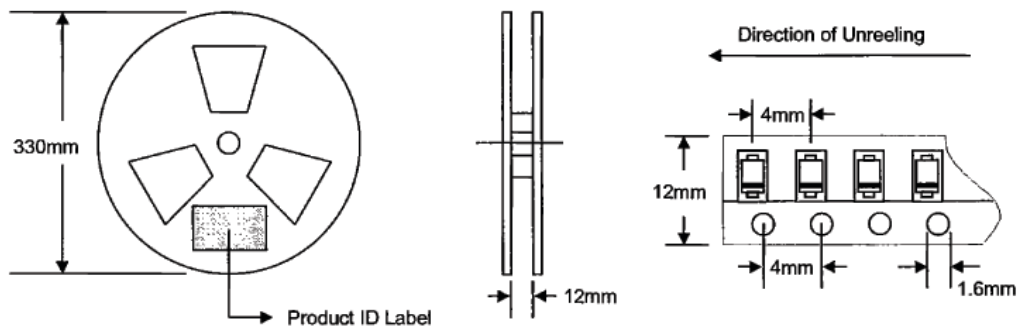
Cathode = Polarity Band  
 = Manufacturer's Logo  
 GS1x = Device Number  
 x = A, B, D, G, J, K or M

## RECOMMENDED FOOTPRINT



## PACKAGING INFORMATION

### TAPE & REEL



| Reel Diameter (mm) | Quantity (PCS) | Inner Box Size L x W x H (mm) | Quantity (PCS) | Carton Size L x W x H (mm) | Quantity (PCS) | Approx. Gross Weight (KG) |
|--------------------|----------------|-------------------------------|----------------|----------------------------|----------------|---------------------------|
| 330                | 5,000          | 340 x 337 x 45                | 10,000         | 370 x 370 x 420            | 80,000         | 14.0                      |

**Note:** 1. Paper reel, white or gray color.  
 2. Components are packed in accordance with EIA standard 481-1 and 481-2.



#### ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| GS1A-T3     | SMA          | 5000/Tape & Reel  |
| GS1B-T3     | SMA          | 5000/Tape & Reel  |
| GS1D-T3     | SMA          | 5000/Tape & Reel  |
| GS1G-T3     | SMA          | 5000/Tape & Reel  |
| GS1J-T3     | SMA          | 5000/Tape & Reel  |
| GS1K-T3     | SMA          | 5000/Tape & Reel  |
| GS1M-T3     | SMA          | 5000/Tape & Reel  |

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, GS1A-T3-LF.

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Deer Park, NY 11729  
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[www.surgecomponents.com](http://www.surgecomponents.com)

*We power your everyday.*