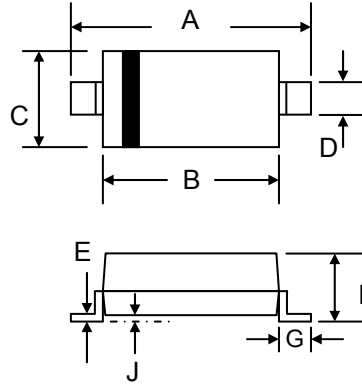


Features

- Silicon Epitaxial Planar Die Construction
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- Plastic Material – UL Recognition Flammability Classification 94V-0



| SOD-323 | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 2.30 | 2.75 |
| B | 1.60 | 1.80 |
| C | 1.15 | 1.35 |
| D | 0.25 | 0.40 |
| E | 0.09 | 0.18 |
| G | 0.20 | 0.40 |
| H | 0.80 | 1.15 |
| J | — | 0.12 |
| All Dimensions in mm | | |

Mechanical Data

- Case: SOD-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.004 grams (approx.)
- Marking: JS
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**

Maximum Ratings @ $T_A=25^\circ\text{C}$ unless otherwise specified

| Characteristic | Symbol | Value | Unit |
|---|----------------|-------------|------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 250 | V |
| Working Peak Reverse Voltage | V_{RWM} | | |
| DC Blocking Voltage | V_R | | |
| Forward Continuous Current | I_F | 200 | mA |
| Non-Repetitive Peak Forward Surge Current, 60Hz | I_{FSM} | 625 | mA |
| Repetitive Peak Forward Current (Note 1) | I_{FRM} | 500 | mA |
| Operating and Storage Temperature Range | T_J, T_{STG} | -55 to +150 | $^\circ\text{C}$ |

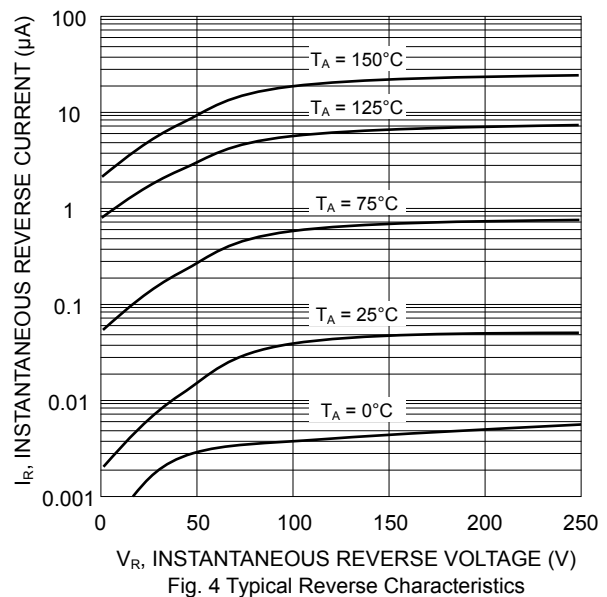
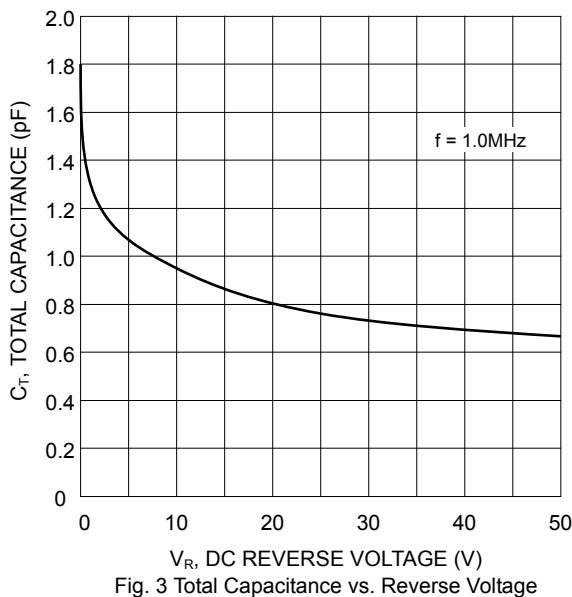
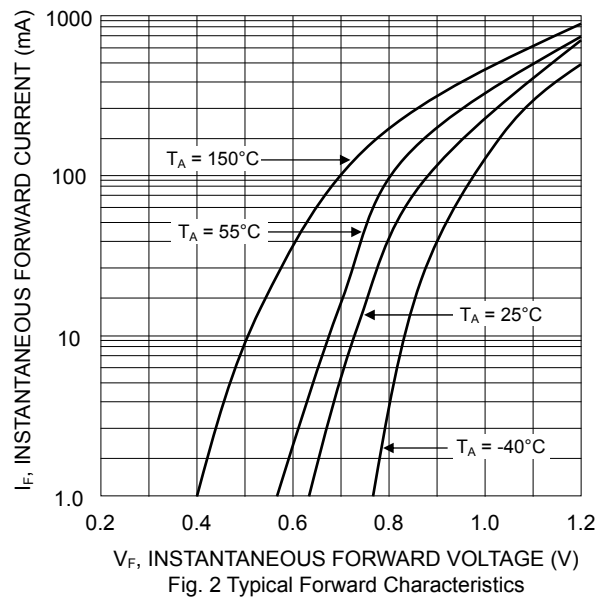
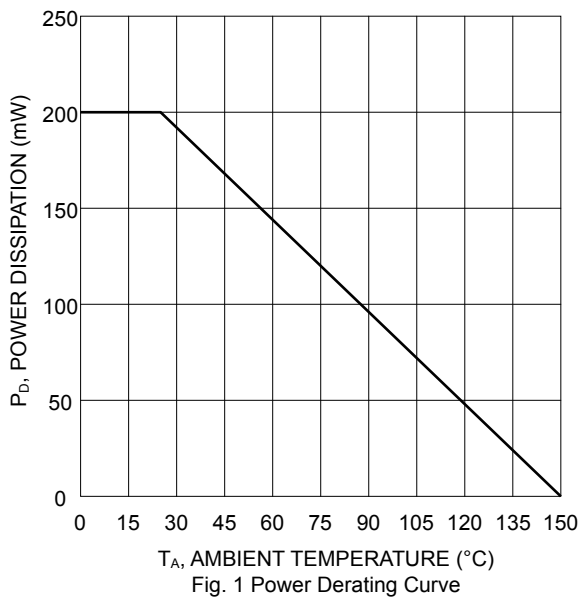
Thermal Characteristics

| Characteristic | Symbol | Value | Unit |
|--|----------|-------|--------------------|
| Power Dissipation (Note 2) | P_D | 200 | mW |
| Thermal Resistance, Junction to Ambient (Note 2) | R_{JA} | 635 | $^\circ\text{C/W}$ |

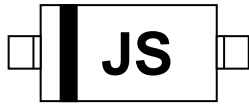
Note: 1. Square wave, $f = 40\text{KHz}$, $PW = 200\text{nS}$, $t = 60\text{s}$, $T_J = 25^\circ\text{C}$ prior to surge.
 2. Mounted on FR-5 PC board with minimum recommended pad layout.

Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

| Characteristic | Symbol | Min. | Typ. | Max. | Unit |
|--|------------|------|------|-------------|---------------|
| Reverse Breakdown Voltage @ $I_R = 100\mu\text{A}$ | $V_{(BR)}$ | 250 | | | V |
| Forward Voltage Drop @ $I_F = 100\text{mA}$ @ $I_F = 200\text{mA}$ | V_{FM} | | | 1.0 1.25 | V |
| Peak Reverse Leakage Current @ $V_R = 200\text{V}, T_J = 25^\circ\text{C}$ @ $V_R = 200\text{V}, T_J = 150^\circ\text{C}$ | I_{RM} | | | 0.1 100 | μA |
| Diode Capacitance ($V_R = 0\text{V}, f = 1.0\text{MHz}$) | C_D | | | 5.0 | pF |
| Reverse Recovery Time ($I_F = I_R = 30\text{mA}, I_{RR} = 0.1 \times I_R, R_L = 100\Omega$) | t_{rr} | | | 50 | nS |

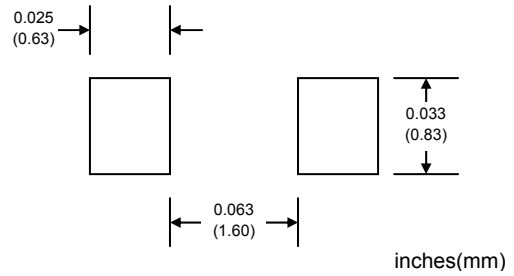


MARKING INFORMATION



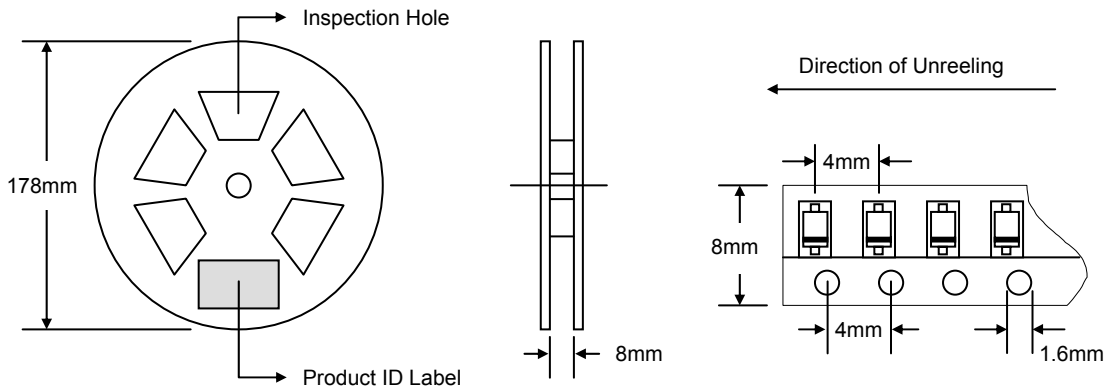
Cathode = Polarity Band
 JS = Device Code

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) |
|--------------------|----------------|-------------------------------|----------------|----------------------------|----------------|---------------------------|
| 178 | 3,000 | 187 x 187 x 65 | 15,000 | 390 x 240 x 420 | 150,000 | 7.0 |

Note: 1. Anti-static plastic reel, white, water clear or blue color. Inspection hole might be varied in different alignment.
 2. Components are packed in accordance with EIA standard 481-1 and 481-2.

ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| BAS21H-T1 | SOD-323 | 3000/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, BAS21H-T1-LF.**

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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