

Small Signal Product

200mW High Voltage SMD Switching Diode

FEATURES

- Fast switching device ($t_{rr} < 4.0ns$)
- Surface mount device type
- Moisture sensitivity level 1
- Matte Tin (Sn) lead finish
- Pb free version and RoHS compliant
- Packing code with suffix "G" means green compound (halogen-free)

MECHANICAL DATA

- Case: Bend lead SOD-323 small outline plastic package
- Terminal: Matte tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- High temperature soldering guaranteed : 260°C/10s
- Polarity: Indicated by cathode band
- Weight: 4.85 ± 0.5 mg
- Marking Code: A6



SOD-323



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

| PARAMETER | SYMBOL | VALUE | UNITS |
|--|-----------------------------------|----------------------|-------|
| Power dissipation | P _D | 200 | mW |
| Mean forward current | I _O | 250 | mA |
| Non-repetitive peak forward current | I _{FRM} | Pulse Width = 1 μsec | 4.0 |
| | | Pulse Width = 1 msec | 1.0 |
| Junction and storage temperature range | T _J , T _{STG} | -65 to + 150 | °C |

| PARAMETER | SYMBOL | MIN | MAX | UNITS |
|---------------------------|-------------------|-------------------------|-------|-------|
| Reverse Breakdown Voltage | V _(BR) | 100 | - | V |
| Forward Voltage | V _F | I _R = 100 μA | 0.715 | V |
| | | I _F = 1.0 mA | 0.855 | |
| | | I _F = 10 mA | 1.000 | |
| | | I _F = 50 mA | 1.250 | |
| Reverse Leakage Voltage | I _R | V _R = 75 V | 1.00 | μA |
| | | V _R = 25 V | 0.03 | |
| Junction Capacitance | C _J | - | 1.5 | pF |
| Reverse Recovery Time | t _{rr} | - | 4 | ns |

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RATINGS AND CHARACTERISTICS CURVES

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

Fig. 1 Typical Forward Characteristics

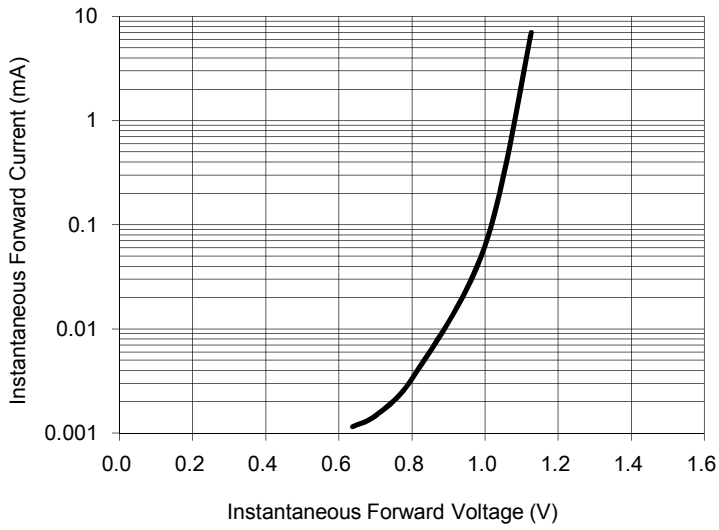


Fig. 2 Reverse Current VS. Reverse Voltage

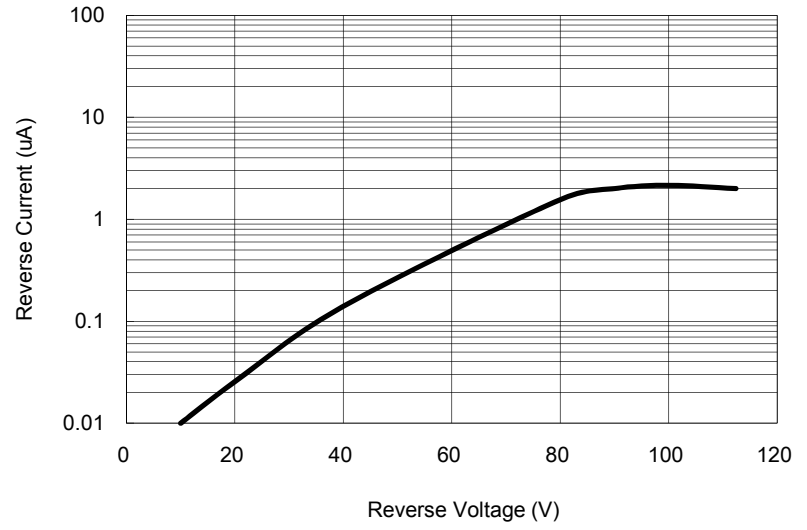


Fig. 3 Admissible Power Dissipation Curve

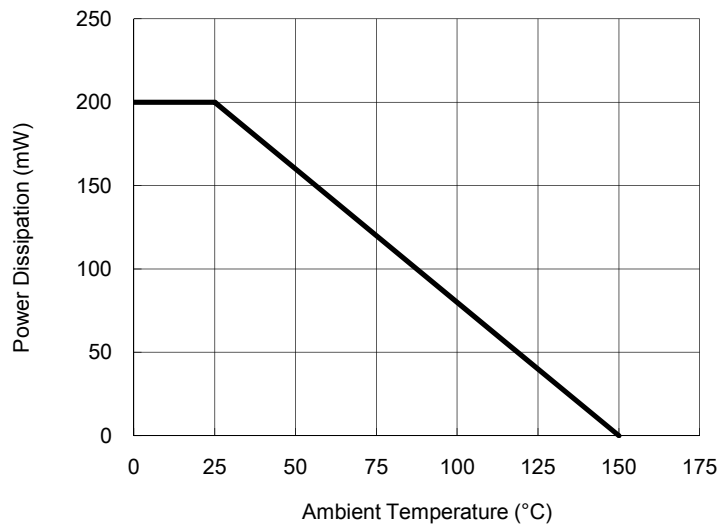
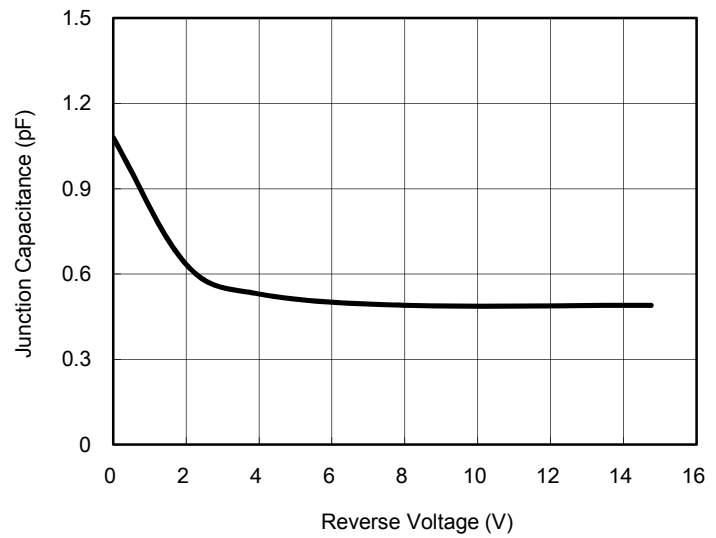


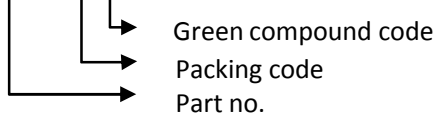
Fig. 4 Typical Junction Capacitance



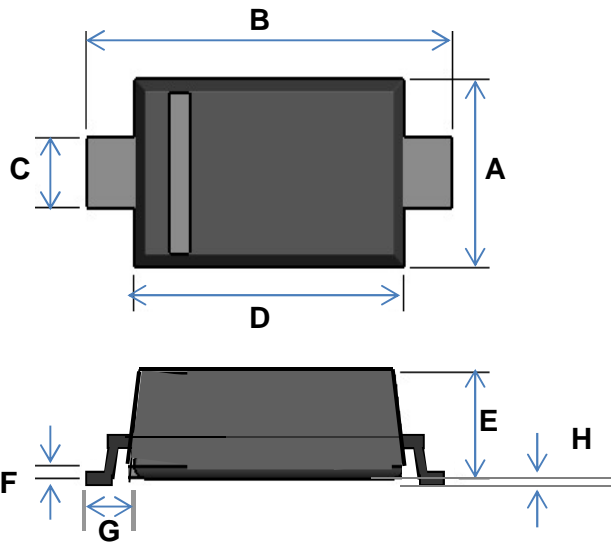
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ORDER INFORMATION (EXAMPLE)

BAS316 RRG

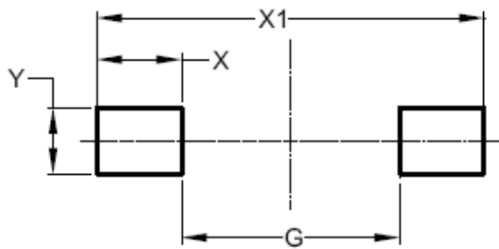


DIMENSIONS



| DIM. | Unit (mm) | | Unit (inch) | |
|------|-----------|-------|-------------|-------|
| | Min | Max | Min | Max |
| A | 1.150 | 1.400 | 0.045 | 0.055 |
| B | 2.300 | 2.700 | 0.091 | 0.106 |
| C | 0.250 | 0.450 | 0.010 | 0.018 |
| D | 1.600 | 1.800 | 0.063 | 0.071 |
| E | 0.800 | 1.000 | 0.031 | 0.039 |
| F | 0.050 | 0.177 | 0.002 | 0.007 |
| G | 0.475 REF | | 0.019 REF | |
| H | - | 0.100 | - | 0.004 |

SUGGESTED PAD LAYOUT



| DIM. | Unit (mm) | | Unit (inch) | |
|------|-----------|-------|-------------|-----|
| | Min | Min | Min | Min |
| G | 1.52 | 0.060 | | |
| X | 0.59 | 0.023 | | |
| X1 | 2.70 | 0.106 | | |
| Y | 0.45 | 0.018 | | |

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