



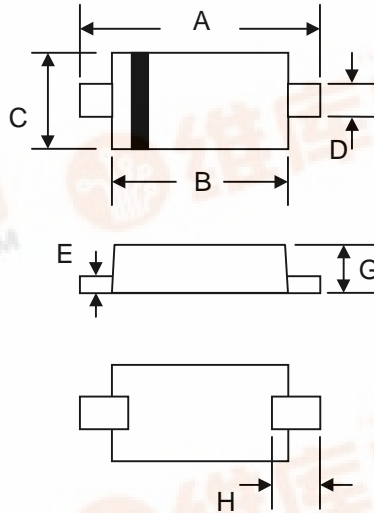
BAS40WS



SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-0



| SOD-323 | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 2.30 | 2.70 |
| B | 1.75 | 1.95 |
| C | 1.15 | 1.35 |
| D | 0.25 | 0.35 |
| E | 0.05 | 0.15 |
| G | 0.70 | 0.95 |
| H | 0.30 | — |
| 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: S40
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 3**

Maximum Ratings @T_A=25°C unless otherwise specified

| Characteristic | Symbol | BAS40WS | Unit |
|--|--|-------------|------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V _{RRM} V _{RWM} V _R | 40 | V |
| Forward Continuous Current (Note 1) | I _F | 200 | mA |
| Forward Surge Current @ t < 1.0s | I _{FSM} | 600 | mA |
| Power Dissipation (Note 1) | P _d | 200 | mW |
| Typical Thermal Resistance, Junction to Ambient Air (Note 1) | R _{θJA} | 625 | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -55 to +125 | °C |

Electrical Characteristics @T_A=25°C unless otherwise specified

| Characteristic | Symbol | Min | Typ | Max | Unit | Test Condition |
|---------------------------|---------------------|-----|-----|--------------------|------|---|
| Reverse Breakdown Voltage | V _(BR) R | 40 | — | — | V | @ I _R = 10μA |
| Forward Voltage | V _F | — | — | 380 500 1000 | mV | @ I _F = 1.0mA, t < 300μs @ I _F = 10mA, t < 300μs @ I _F = 40mA, t < 300μs |
| Reverse Leakage Current | I _R | — | 20 | 200 | nA | @ V _R = 30V, t < 300μs |
| Junction Capacitance | C _j | — | 4.0 | 5.0 | pF | V _R = 0V, f = 1.0MHz |
| Reverse Recovery Time | t _{rr} | — | — | 5.0 | nS | I _F = 10mA through I _R = 10mA to I _R = 1.0mA, R _L = 100Ω |

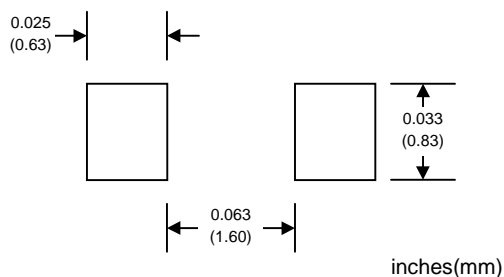
Note: 1. Device on fiberglass substrate.

MARKING INFORMATION



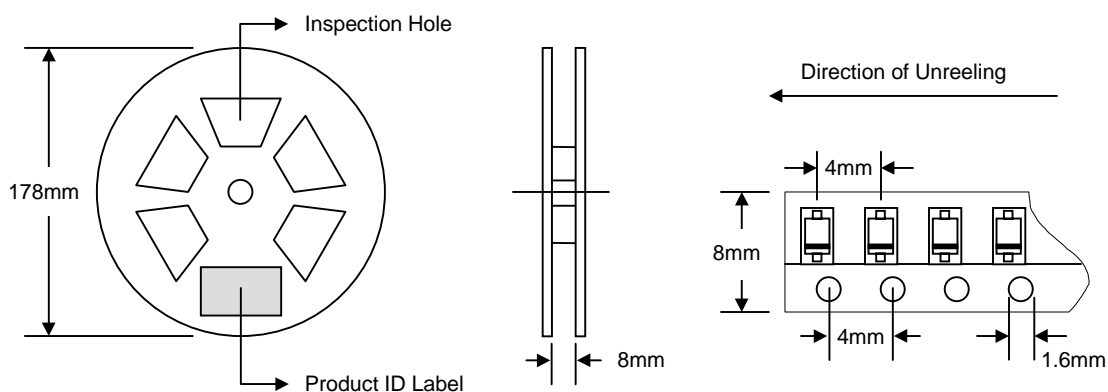
Cathode = Polarity Band
S40 = Device Code

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 | 5,000 | 187 x 187 x 65 | 25,000 | 390 x 240 x 420 | 250,000 | 10.0 |

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 |
|-------------|--------------|-------------------|
| BAS40WS-T1 | SOD-323 | 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, BAS40WS-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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