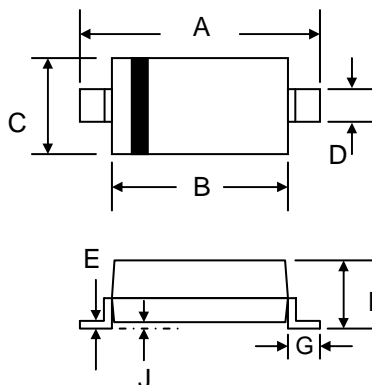


SURFACE MOUNT SCHOTTKY BARRIER DIODE

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-O



| 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 | 1.00 |
| 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: Device Code, See Page 2
- **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.

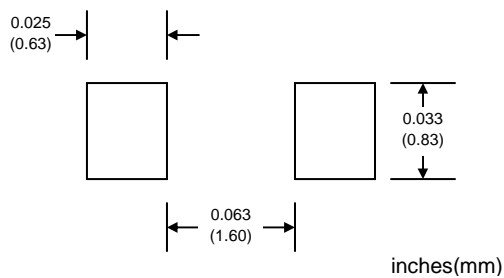
MARKING INFORMATION



xx = Device Code, See Table Below

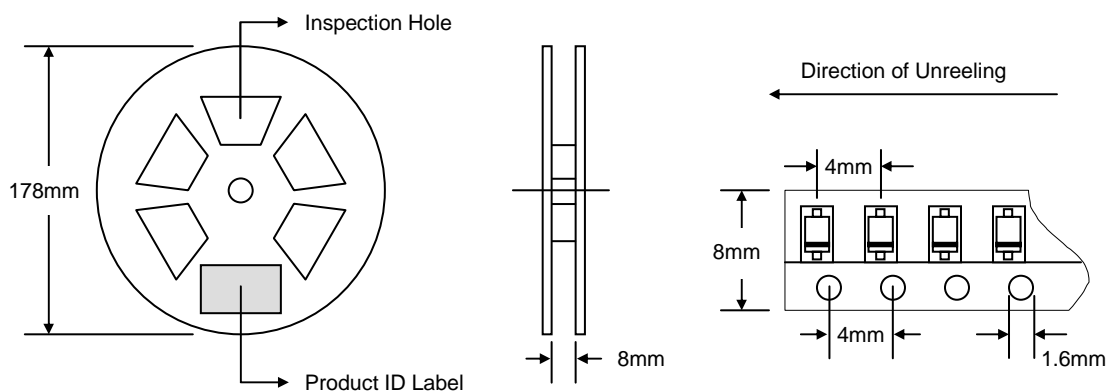
| Mfg Site | Device Code |
|----------|-------------|
| TW Plant | S40 |
| CN Plant | 43 |

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 |
|-------------|--------------|-------------------|
| BAS40WS-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, BAS40WS-T1-LF.**

Won-Top Electronics Co., Ltd (WTE) has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

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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