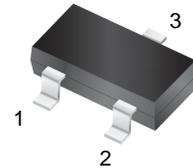


Schottky Barrier Diode in SOT-323

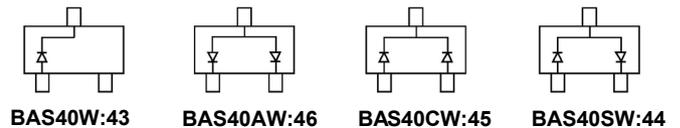
Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- Low Forward Voltage



Mechanical Data

- **Case:** SOT-323 (plastic package).
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals



Applications

- High Speed Switching and Reverse Polarity Protection
- High Speed Rectifying Applications
- Consumer, Automotive and Telecommunication Industry

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

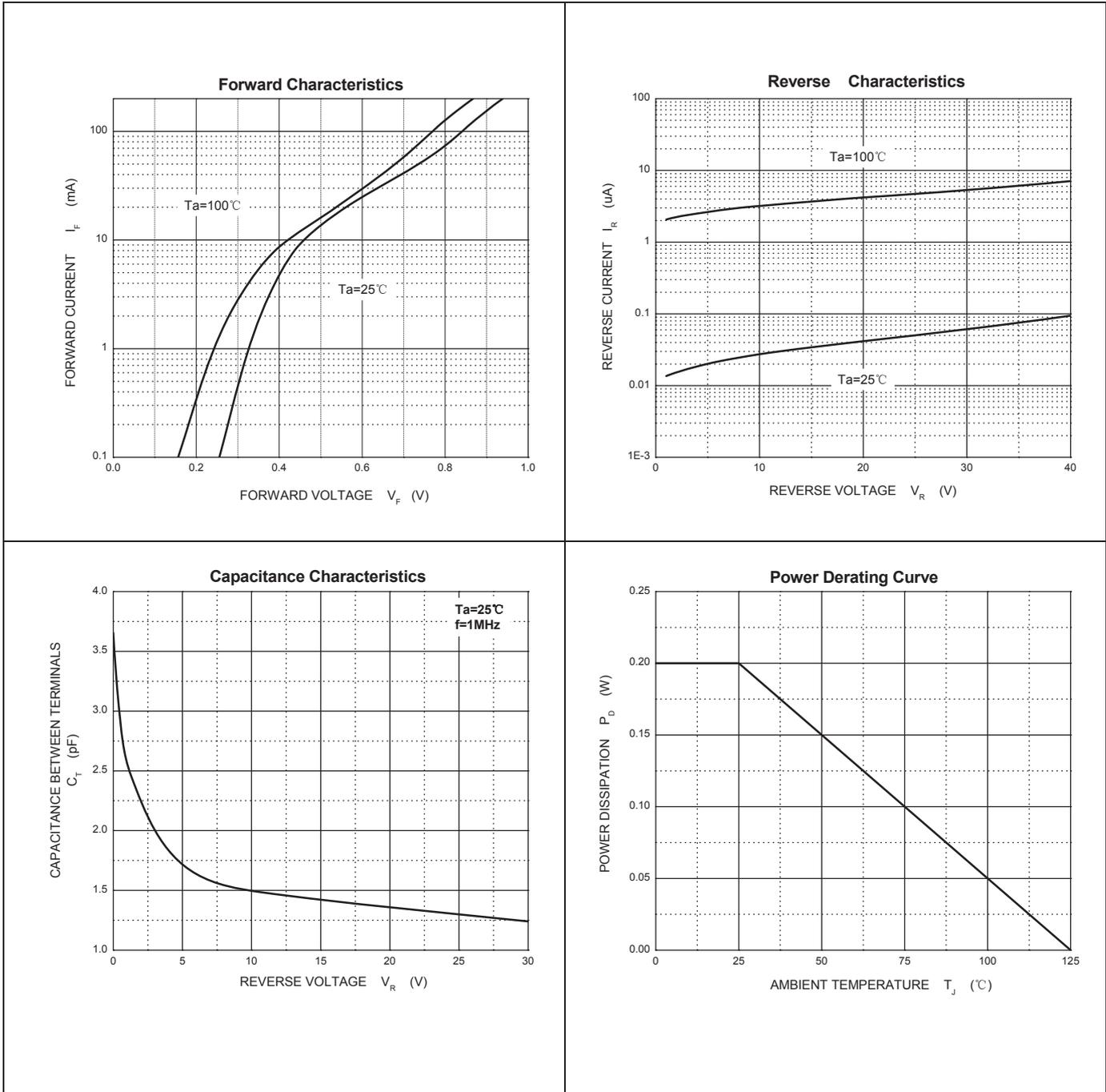
| Parameter | Symbol | Limits | Unit |
|--------------------------------------|----------------|---------|------|
| Peak Repetitive Peak reverse voltage | V_{RRM} | 40 | V |
| Working Peak Reverse Voltage | V_{RWM} | 40 | V |
| DC Reverse Voltage | V_R | 40 | V |
| Forward Continuous Current | I_F | 200 | mA |
| Forward surge current @ $t < 1.0s$ | I_{FSM} | 600 | mA |
| Power Dissipation | P_d | 200 | mW |
| Operating and Storage temperature | T_j, T_{STG} | -55-150 | °C |

Electrical Characteristics

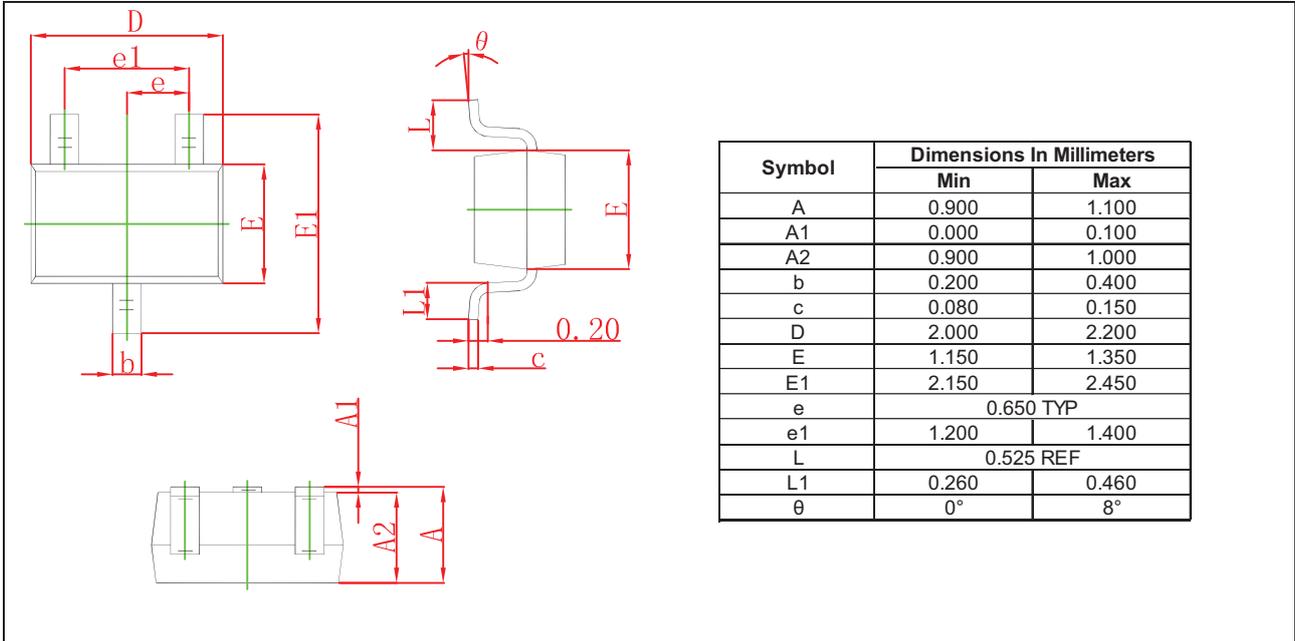
($T_A = 25\text{ °C}$ unless otherwise specified)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|---------------------------|------------|------|------|------|---------|--|
| Reverse Breakdown Voltage | $V_{(BR)}$ | 40 | | | V | $V_R = 10\mu A$ |
| Forward voltage | V_{F1} | | | 0.38 | V | $I_F = 1mA$ |
| | V_{F2} | | | 1 | V | $I_F = 40mA$ |
| Reverse current | I_R | | | 2 | μA | $V_R = 30V$ |
| Diode Capacitance | C_D | | | 5 | pF | $V_R = 1V, f = 1MHz$ |
| Reverse Recovery Time | t_{rr} | | | 5 | ns | $I_F = I_R = 10mA$ $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$ |

Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



Package Dimensions



Ordering information

| Order code | Package | Packaging option | Base quantity | Packaging specification |
|-----------------|---------|------------------|----------------|-------------------------|
| BAS40W/AW/CW/SW | SOT-323 | Tape and reel | 3000pcs / reel | EIA STD RS-481 |

Revision history

| Date | Revision | Changes |
|-------------|----------|-----------------|
| 23-May-2012 | 1.0 | Initial release |

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