



THE DATASHEET OF BAR43S-TP



Features

- Low Current Leakage
- Surface Mount SOT-23 Package
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 500°C/W Junction to Ambient

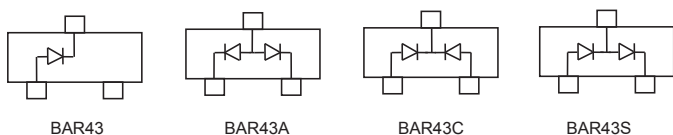
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|-----------------------------|
| BAR43 | D95 | 30V | 30V |
| BAR43A | DB1 | 30V | 30V |
| BAR43C | DB2 | 30V | 30V |
| BAR43S | DA5 | 30V | 30V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|-------------------------|---|
| Average Forward Current | $I_{F(AV)}$ | 200mA | |
| Power Dissipation | P_D | 200mW | $T_A = 25^\circ\text{C}$ |
| Maximum Forward Voltage | V_F | 0.33V 0.45V 0.80V | $I_F = 2\text{mA}$ $I_F = 15\text{mA}$ $I_F = 100\text{mA}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 0.5µA | $V_R = 25\text{V}$ |
| Maximum Reverse Breakdown Voltage | $V_{(BR)}$ | 30V(min) | $I_R = 100\mu\text{A}$ |
| Maximum Reverse Recovery Time | t_{rr} | 5.0ns | $I_F = I_R = 10\text{mA}; I_{RR} = 1\text{mA}$ $R_L = 100\Omega$ |

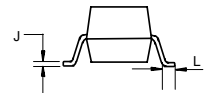
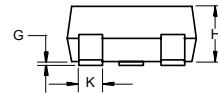
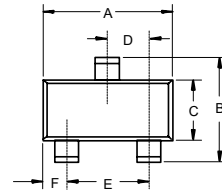
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



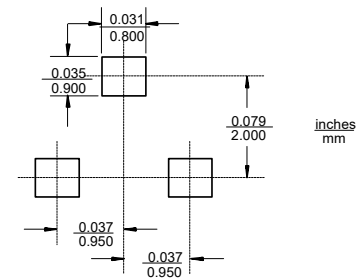
200mW Schottky Diode

SOT-23



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | 0.110 | 0.120 | 2.80 | 3.04 | |
| B | 0.083 | 0.104 | 2.10 | 2.64 | |
| C | 0.047 | 0.055 | 1.20 | 1.40 | |
| D | 0.034 | 0.041 | 0.85 | 1.05 | |
| E | 0.067 | 0.083 | 1.70 | 2.10 | |
| F | 0.018 | 0.024 | 0.45 | 0.60 | |
| G | 0.0004 | 0.006 | 0.01 | 0.15 | |
| H | 0.035 | 0.043 | 0.90 | 1.10 | |
| J | 0.003 | 0.007 | 0.08 | 0.18 | |
| K | 0.012 | 0.020 | 0.30 | 0.51 | |
| L | 0.007 | 0.020 | 0.20 | 0.50 | |

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Characteristics

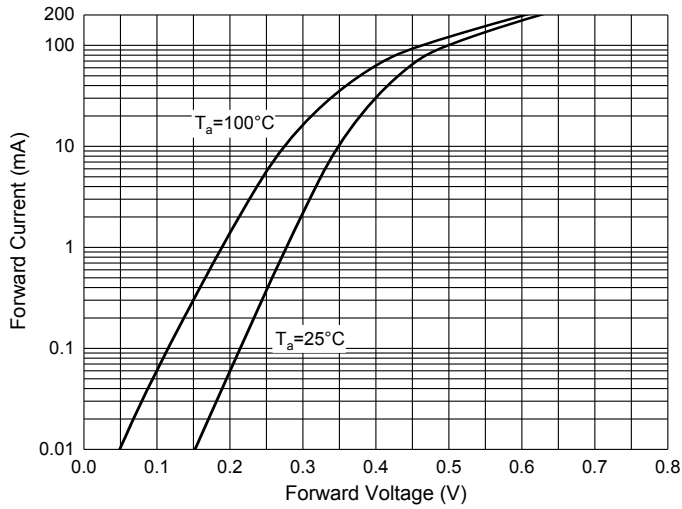


Fig. 2 - Reverse Characteristics

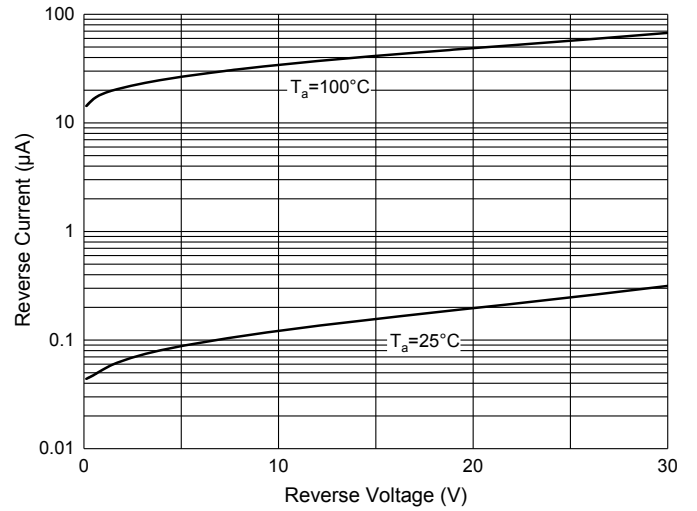


Fig. 3 - Capacitance Characteristics

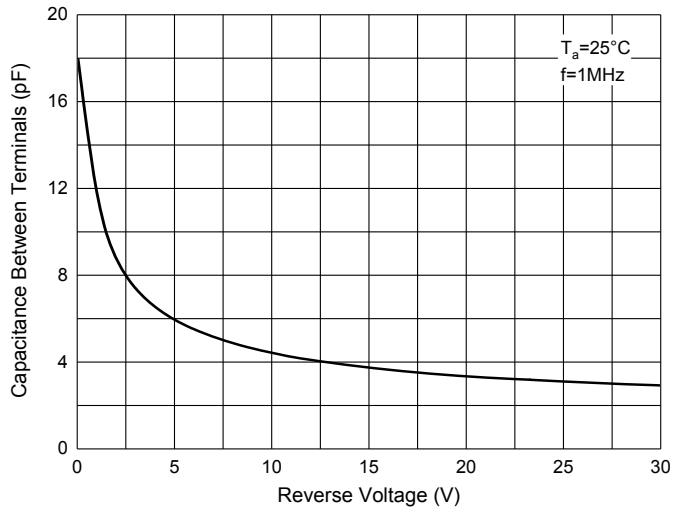
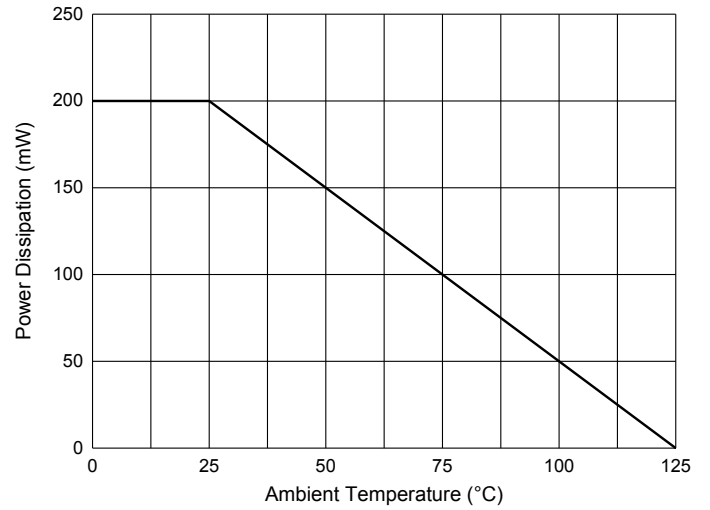


Fig. 4 - Power Derating Curve



Ordering Information

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

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