

**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

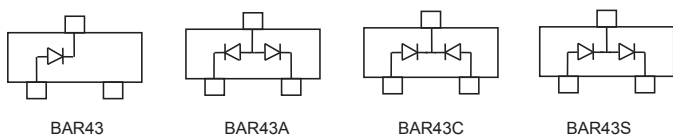
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|-----------------------------|
| BAR43           | D95            | 30V                                    | 30V                         |
| BAR43A          | 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<br>0.45V<br>0.80V | $I_F = 2\text{mA}$<br>$I_F = 15\text{mA}$<br>$I_F = 100\text{mA}$   |
| 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                   | $I_F = I_R = 10\text{mA}; I_{RR} = 1\text{mA}$<br>$R_L = 100\Omega$ |

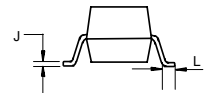
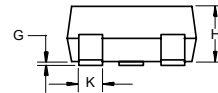
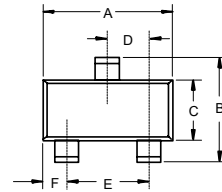
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

**Internal Structure**



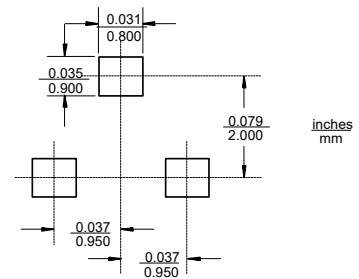
**200mW Schottky Diode**

**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

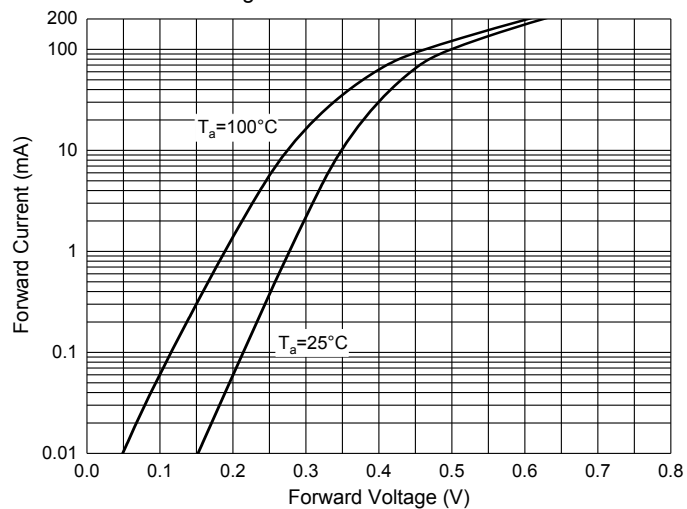


Fig. 2 - Reverse Characteristics

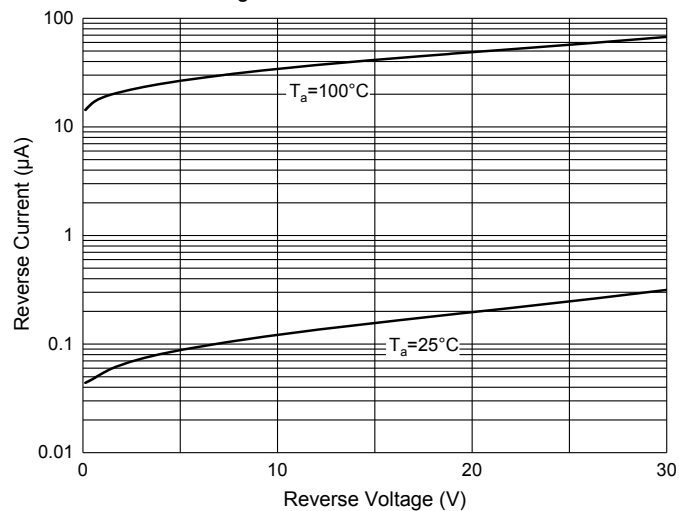


Fig. 3 - Capacitance Characteristics

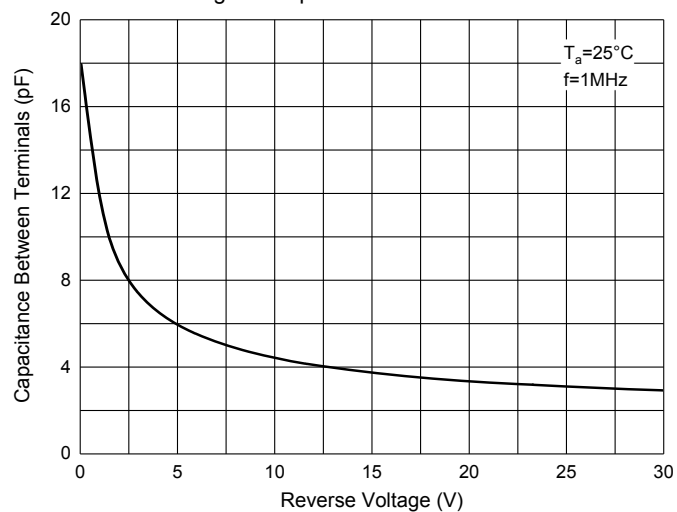
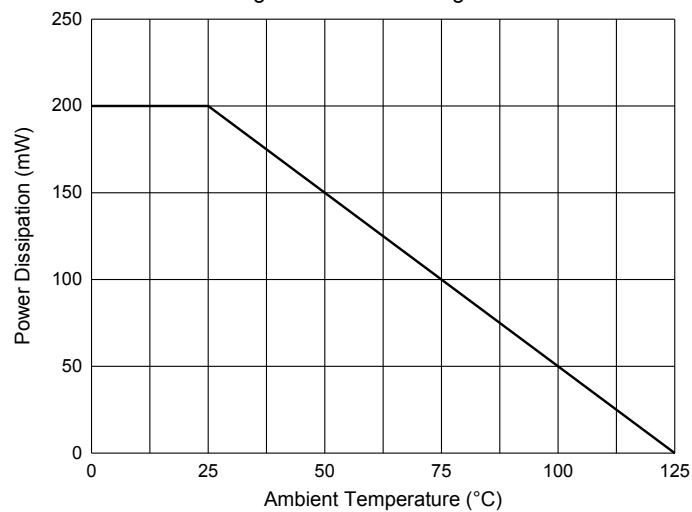


Fig. 4 - Power Derating Curve



## Ordering Information

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

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