

Features

- Fast Switching Speed
- For General Purpose Switching Applications
- Surface Mount Package
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- 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 +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 833°C/W Junction to Ambient

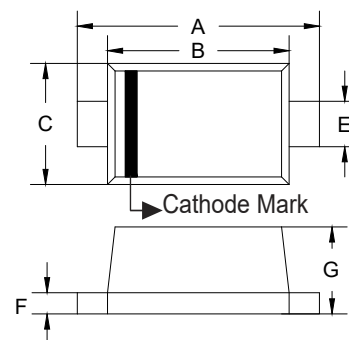
| MCC Part Number | Device Marking |
|-----------------|----------------|
| BAS16X | A6 |

| Parameter | Symbol | Value |
|----------------------------|-------------|-------|
| DC Reverse Voltage | V_R | 75V |
| Average Forward Current | $I_{F(AV)}$ | 200mA |
| Peak Forward Surge Current | I_{FSM} | 0.5A |
| Power Dissipation | P_D | 150mW |

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

150mW 75Volt Switching Diode

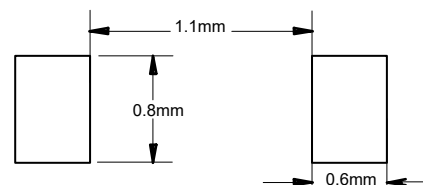
SOD-523



DIMENSIONS

| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.059 | 0.067 | 1.50 | 1.70 | |
| B | 0.043 | 0.051 | 1.10 | 1.30 | |
| C | 0.030 | 0.033 | 0.75 | 0.85 | |
| E | 0.010 | 0.014 | 0.25 | 0.35 | |
| F | 0.003 | 0.008 | 0.08 | 0.20 | |
| G | 0.020 | 0.026 | 0.50 | 0.65 | |

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Units |
|---------------------------|----------|---|------|------|-------|---------|
| Reverse Breakdown Voltage | V_{BR} | $I_R=100\mu A$ | 75 | | | V |
| Forward Voltage | V_F | $I_F=1mA$ | | | 0.715 | V |
| | | $I_F=10mA$ | | | 0.855 | V |
| | | $I_F=50mA$ | | | 1 | V |
| | | $I_F=150mA$ | | | 1.25 | V |
| Reverse Current | I_R | $V_R=75V$ | | | 1 | μA |
| | | $V_R=75V, T_J=150^\circ C$ | | | 50 | μA |
| Junction Capacitance | C_J | $V_R = 0V, f = 1MHz$ | | 2 | | pF |
| Reverse Recovery Time | t_{rr} | $I_F=I_R=10mA,$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$ | | | 6 | ns |

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

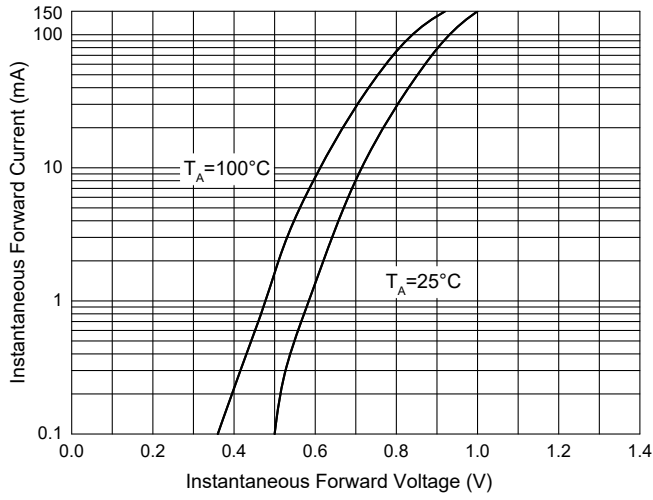


Fig. 2 - Typical Reverse Leakage Characteristics

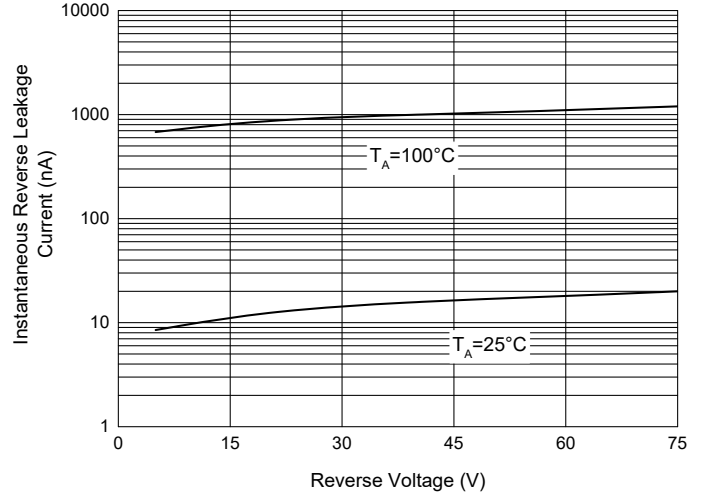
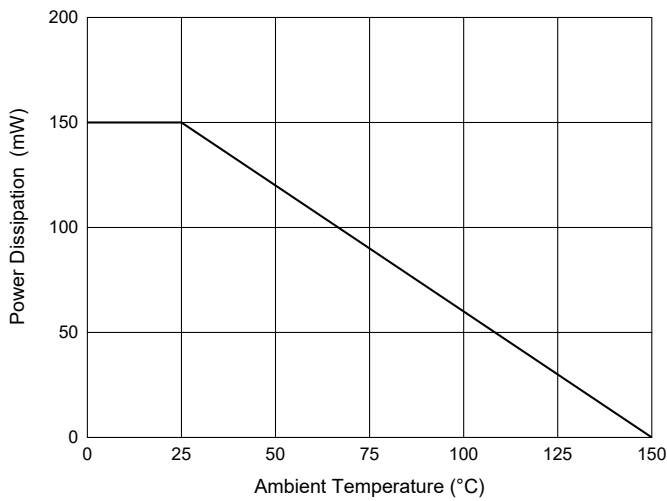


Fig. 3 - Power Derating Curve



Ordering Information

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 8Kpcs/Reel |

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