

Features

- Surface Mount Package Ideally Suited for Automatic Insertion
- 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: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 312.5°C/W Junction to Ambient

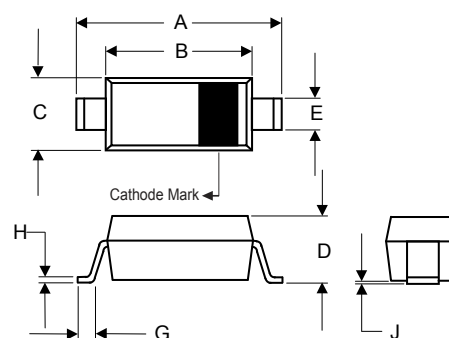
| MCC Part Number | Device Marking |
|-----------------|----------------|
| BAS316 | A6 |

| Parameter | Symbol | Value |
|------------------------------|----------------|-------|
| Maximum Peak Reverse Voltage | V_{RM} | 100V |
| Maximum DC Blocking Voltage | V_R | 100V |
| Peak Forward Current | I_F | 250mA |
| Peak Forward Surge Current | ($t=1\mu s$) | 4A |
| | ($t=1ms$) | 1A |
| | ($t=1s$) | 0.5A |
| Power Dissipation | P_D | 400mW |

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

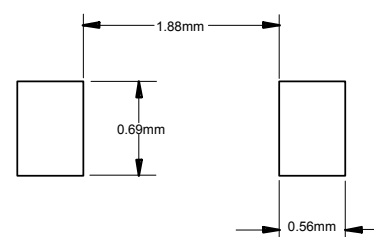
400mW High Speed Switching Diode

SOD-323



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.090 | 0.107 | 2.30 | 2.70 | |
| B | 0.063 | 0.071 | 1.60 | 1.80 | |
| C | 0.045 | 0.053 | 1.15 | 1.35 | |
| D | 0.031 | 0.045 | 0.80 | 1.15 | |
| E | 0.010 | 0.016 | 0.25 | 0.40 | |
| G | 0.004 | 0.018 | 0.10 | 0.45 | |
| H | 0.004 | 0.010 | 0.10 | 0.25 | |
| J | ----- | 0.006 | ----- | 0.15 | |

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Units |
|---------------------------|----------|---|------|------|-------|---------|
| Reverse Breakdown Voltage | V_{BR} | $I_R=100\mu A$ | 100 | | | 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 | $V_R=20V$ | | | 0.03 | μA |
| | | $V_R=75V$ | | | 1 | μA |
| Junction Capacitance | C_J | $V_R = 0V, f = 1MHz$ | | | 1.5 | pF |
| Reverse Recovery Time | t_{rr} | $I_F=I_R=10mA,$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$ | | | 4 | ns |

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

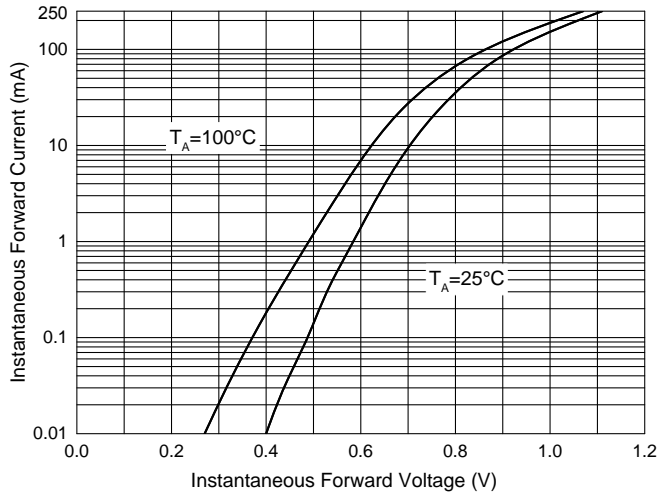


Fig. 2 - Typical Reverse Leakage Characteristics

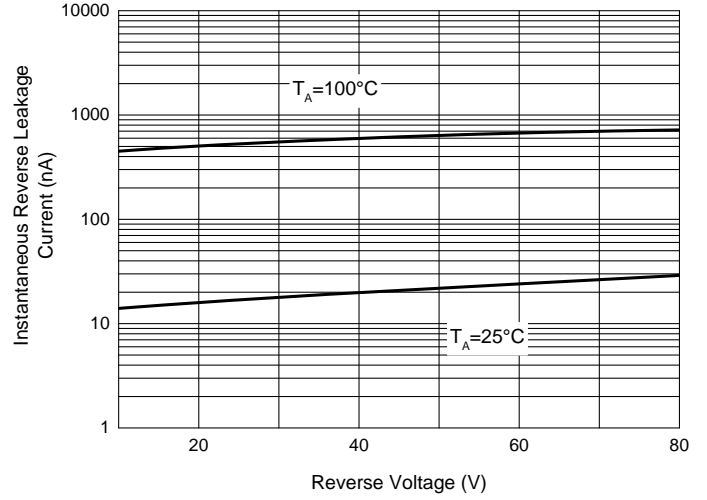
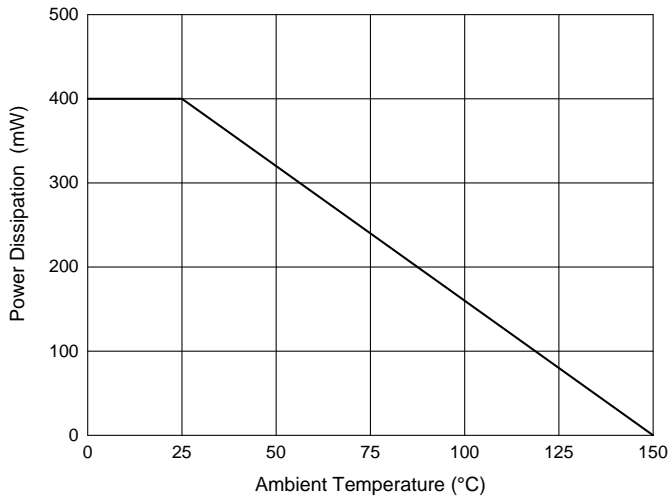


Fig. 3 - Power Derating Curve



Ordering Information

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

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