

Features

- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- For Surface Mount Application
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- High Frequency And Low Voltage Rectifier

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 500°C/W Junction to Ambient (Note2)

| MCC Part Number | Repetitive Peak Reverse Voltage V_{RRM} | RMS Reverse Voltage $V_{R(RMS)}$ | DC Blocking Voltage V_R |
|-----------------|---|----------------------------------|---------------------------|
| BAS40W | 40V | 28V | 40V |

Maximum Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-----------|-------|------------------------|
| Forward Current | I_F | 200mA | |
| Non-repetitive Peak Forward Surge Current | I_{FSM} | 2A | @ t=8.3ms |
| Power Dissipation | P_D | 200mW | $T_A=25^\circ\text{C}$ |

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

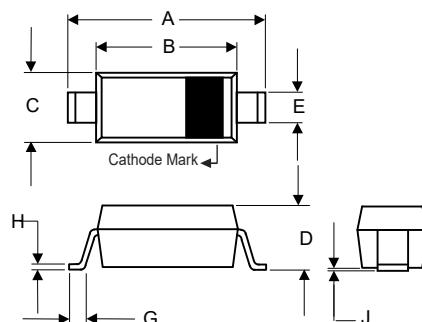
2. Part mounted on FR-4 board with recommended pad layout.

Internal Structure and Marking Code

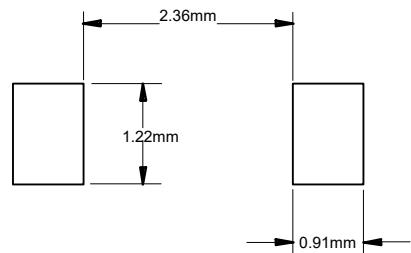
Cathode  Anode 



200 mA Schottky Rectifier 40 Volts

SOD-123

| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.140 | 0.152 | 3.55 | 3.85 | |
| B | 0.100 | 0.112 | 2.55 | 2.85 | |
| C | 0.055 | 0.071 | 1.40 | 1.80 | |
| D | ---- | 0.053 | ---- | 1.35 | |
| E | 0.018 | 0.026 | 0.45 | 0.65 | |
| G | 0.006 | ---- | 0.15 | ---- | |
| H | ---- | 0.010 | ---- | 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} | $I_R=10\mu A$ | 40 | | | V |
| Forward Voltage | V_{F1} | $I_F=1mA$ | | | 0.39 | V |
| | V_{F2} | $I_F=40mA$ | | | 1.00 | V |
| Reverse Current | I_R | $V_R=30V$ | | | 0.2 | μA |
| Junction Capacitance | C_J | $V_R = 0V, f = 1MHz$ | | | 5 | pF |
| Reverse Recovery Time | t_{rr} | $I_F=I_R=10mA,$ $I_{rr}=0.1\times I_R, R_L=100\Omega$ | | | 5 | ns |

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

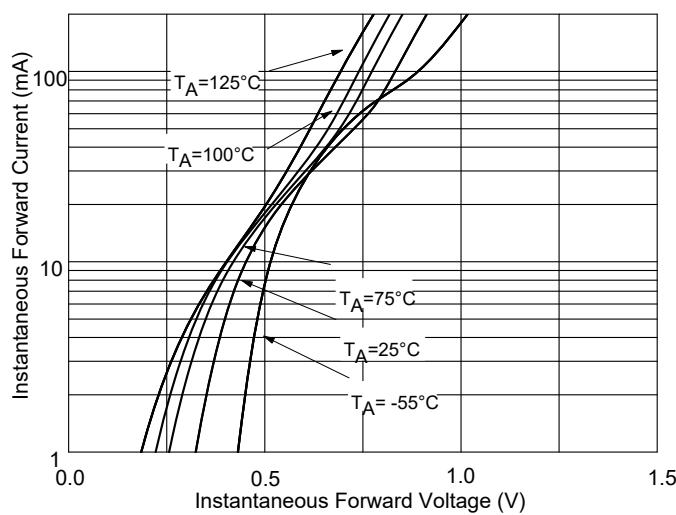


Fig. 2 - Typical Reverse Leakage Characteristics

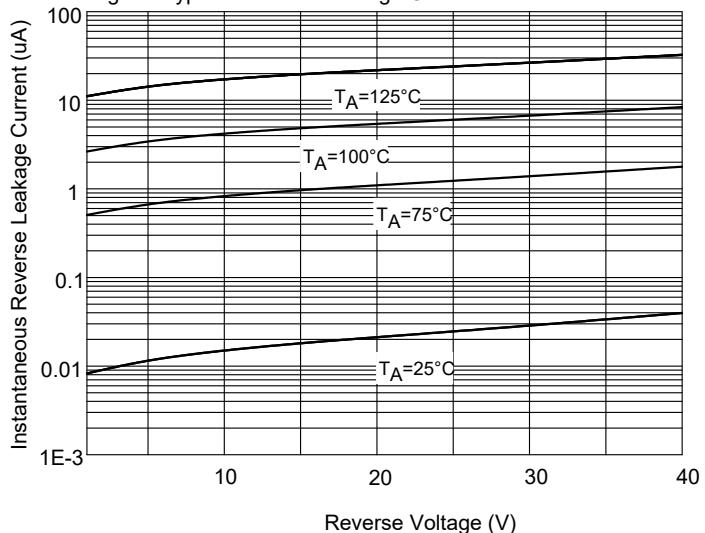


Fig. 3 - Capacitance Characteristics

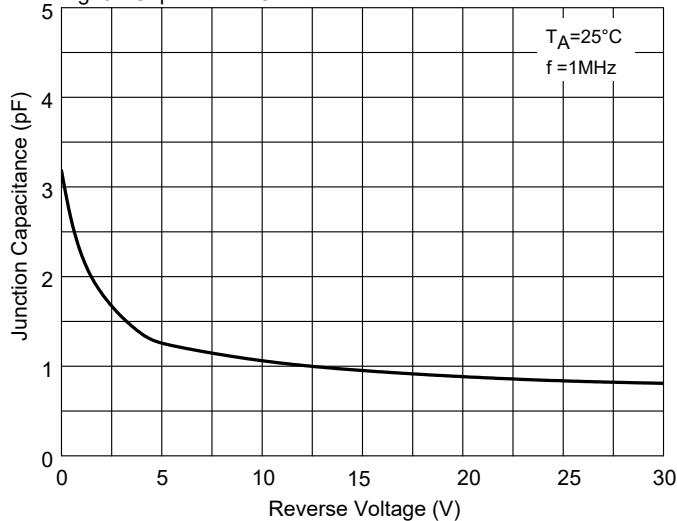
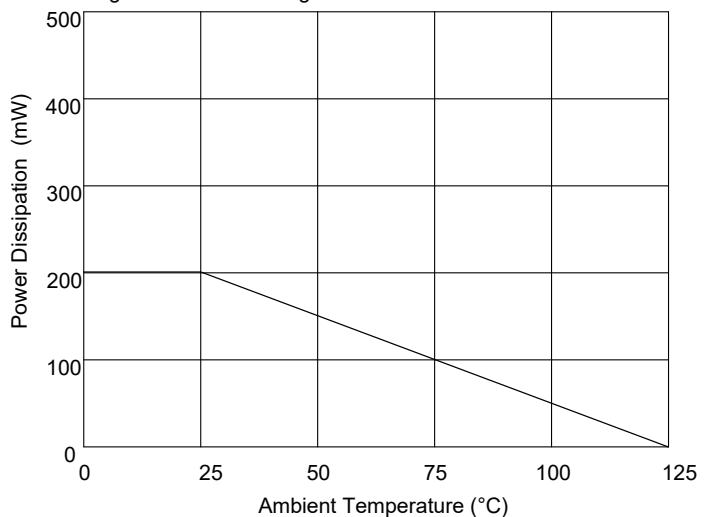


Fig. 4 - Power Derating Curve



Ordering Information

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

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