

**Features**

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- High Breakdown Voltage
- Low Turn-on Voltage
- Guard Ring Construction For Transient Protection
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Polarity: Indicated By Cathode Band
- 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 |
|-----------------|----------------|--|-----------------------------|
| BAT46WS         | S9             | 100V                                   | 100V                        |

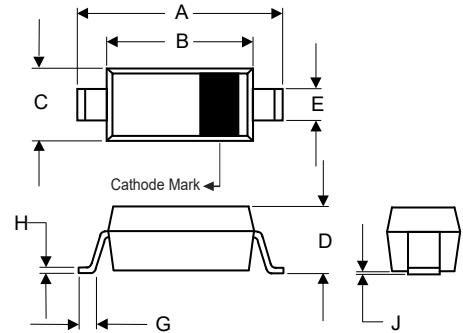
**Electrical Characteristics @ 25°C Unless Otherwise Specified**

|   |           |  |   |
|---|-----------|--|---|
| Forward Continuous Current                | $I_F$     | 150mA  |   |
| Repetitive peak Forward Current(Note 1)   | $I_{FRM}$ | 350mA  | $t_p < 1.0s$ ,<br>Duty Cycle < 50%                |
| Non-repetitive Peak Forward surge current | $I_{FSM}$ | 750mA  | $t = 8.3ms$                                       |
| Power Dissipation                         | $P_D$     | 200mW  |   |
| Forward Voltage Drop(Note2)               | $V_F$     | 0.25V(Max)<br>0.45V(Max)<br>1.0V(Max)                | $I_F=0.1mA$ ;<br>$I_F=10mA$ ;<br>$I_F=250mA$ ;    |
| Reverse Voltage Leakage current           | $I_R$     | 0.3µA(Max)<br>0.5µA(Max)<br>1.0µA(Max)<br>2.0µA(Max) | $V_R=1.5V$<br>$V_R=10V$<br>$V_R=50V$<br>$V_R=75V$ |
| Reverse Breakdown Voltage(Note 2)         | $V_R$     | 100V(Min)  | $I_R=100µA$                                       |
| Diode Capacitance                         | $C_T$     | 20pF(Typ)<br>12pF(Typ)                               | $V_R=0V, f=1.0MHz$<br>$V_R=1V, f=1.0MHz$          |

Notes: 1. Part mounted on FR-4 board with recommended pad layout.  
2. Short duration pulse test used to minimize self-heating effect.

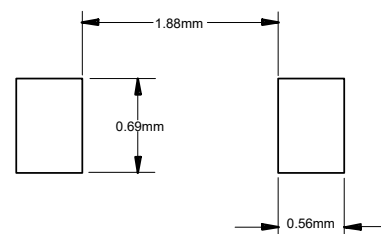
**Schottky Barrier Diode  
200mW**

**SOD-323**



| DIM | DIMENSIONS |       |      |      | NOTE |
|-----|------------|-------|------|------|------|
|     | INCHES     |       | MM   |      |      |
|     | 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**



**Curve Characteristics**

Fig. 1 - Forward Characteristics

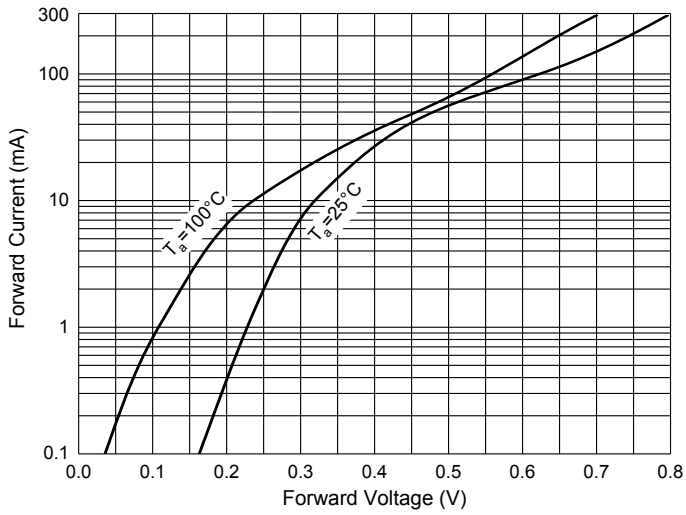


Fig. 2 - Reverse Characteristics

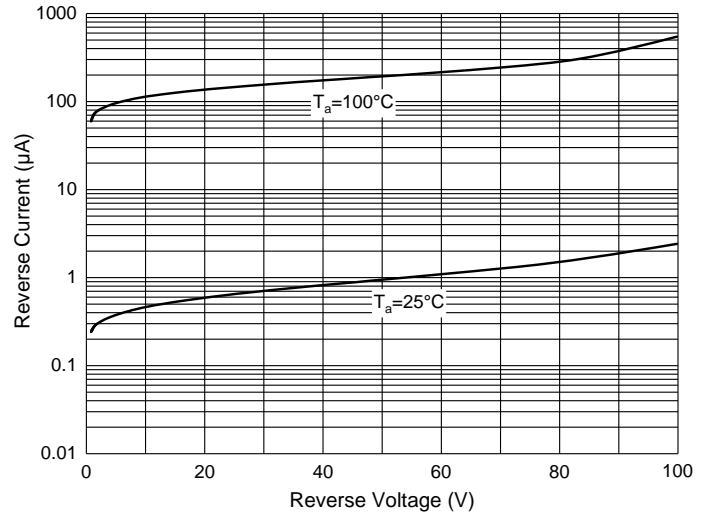


Fig. 3 - Capacitance Characteristics

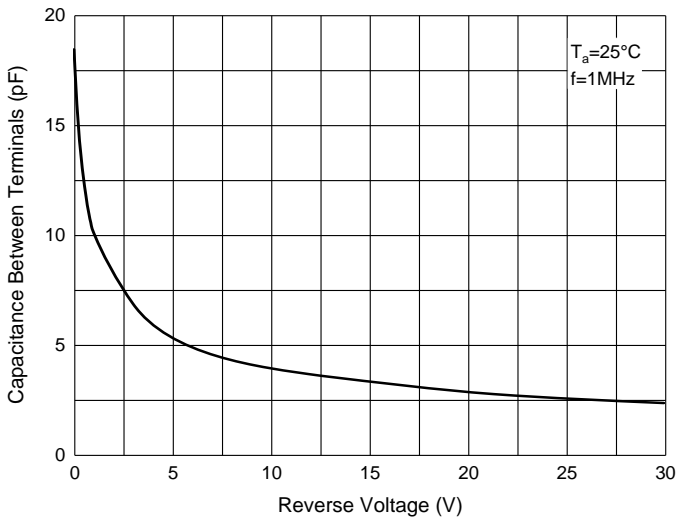
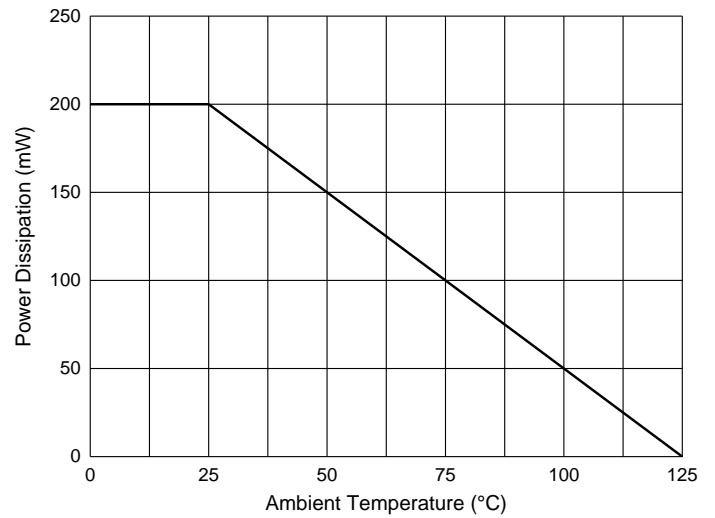


Fig. 4 - Power Derating Curve



## Ordering Information

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

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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