

**Features**

- Low Leakage Current
- Fast Switching Speed
- High Reverse Breakdown Voltage
- 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

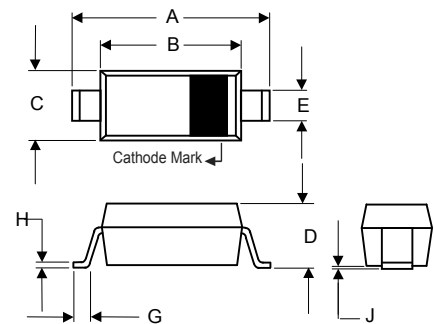
| MCC Part Number | Device Marking |
|-----------------|----------------|
| BAV3004W        | 4P             |

| Parameter                         | Symbol       | Value |
|-----------------------------------|--------------|-------|
| DC Reverse Voltage                | $V_R$        | 300V  |
| Peak Repetitive Reverse Voltage   | $V_{RRM}$    | 350V  |
| RMS Reverse Voltage               | $V_{R(RMS)}$ | 210V  |
| Forward Continuous Current        | $I_{FM}$     | 225mA |
| Repetitive Peak Forward Current   | $I_{FRM}$    | 625mA |
| Peak Forward Surge Current (t=1s) | $I_{FSM}$    | 1A    |
| (t=1µs)                           |              | 4A    |
| 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.

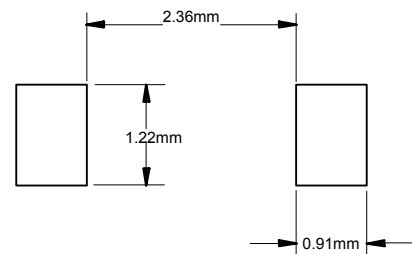
**400mW Low Leakage Diodes**

**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 | $V_{BR}$ | $I_R=150\mu A$  | 350  |      |      | V       |
| Forward Voltage           | $V_F$    | $I_F=20mA$  |      | 0.78 | 0.87 | V       |
|                           |          | $I_F=100mA$   |      | 0.93 | 1    | V       |
|                           |          | $I_F=200mA$   |      | 1.03 | 1.25 | V       |
| Reverse Current           | $I_R$    | $V_R=240V$  |      | 30   | 100  | nA      |
|                           |          | $V_R=240V, T_J=150^\circ C$                               |      | 35   | 100  | $\mu A$ |
| Junction Capacitance      | $C_J$    | $V_R = 0V, f = 1MHz$                                      |      | 1    | 5    | pF      |
| Reverse Recovery Time     | $t_{rr}$ | $I_F=I_R=30mA,$<br>$I_{rr}=0.1 \times I_R, R_L=100\Omega$ |      |      | 50   | ns      |

\* Pulse Test: Pulse Width 300  $\mu sec$ , Duty Cycle 2%

**Curve Characteristics**

Fig. 1 - Typical Instantaneous Forward Characteristics

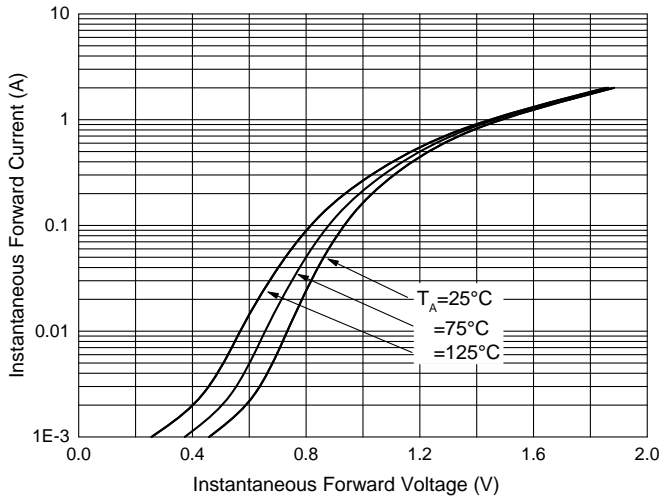


Fig. 2 - Typical Reverse Leakage Characteristics

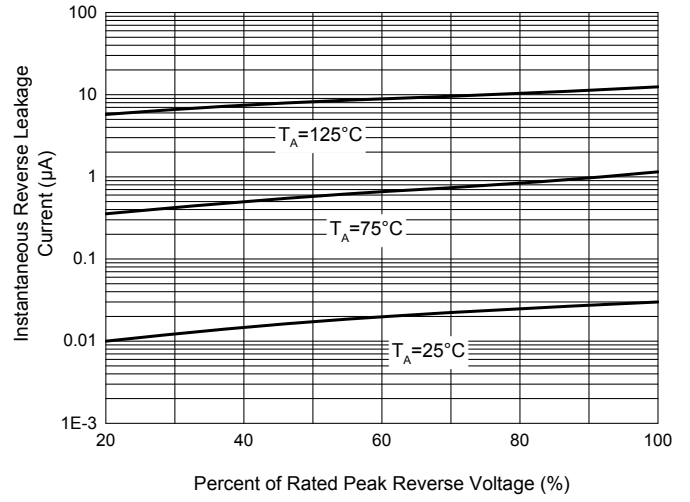
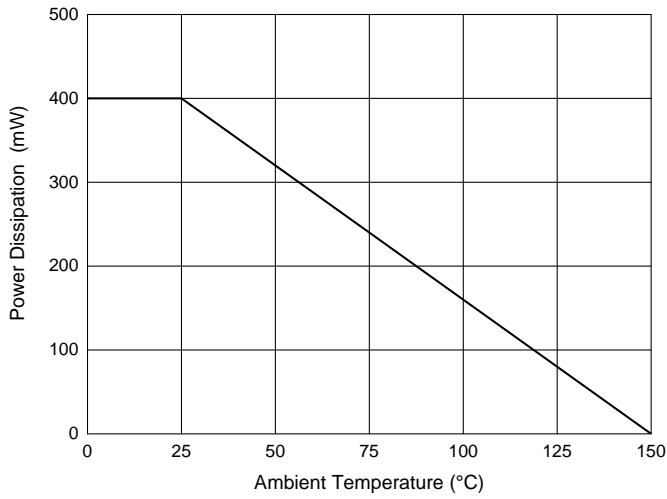


Fig. 3 - Power Derating Curve



## Ordering Information

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

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