

**Features**

- Fast Switching
- Low Forward Voltage Drop
- Low Power Dissipation
- Ultra-Small Surface Mount Package
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- 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

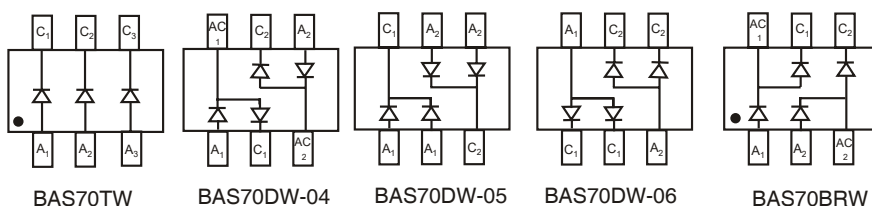
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|-----------------------------|
| BAS70TW         | K73            | 70V                                    | 70V                         |
| BAS70DW-04      | K74            | 70V                                    | 70V                         |
| BAS70DW-05      | K71            | 70V                                    | 70V                         |
| BAS70DW-06      | K76            | 70V                                    | 70V                         |
| BAS70BRW        | K75            | 70V                                    | 70V                         |

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

|   |            |                 |   |
|---|------------|-----------------|---|
| Average Forward Current                                 | $I_F$      | 70mA            |   |
| Peak Forward Surge Current                              | $I_{FSM}$  | 100mA           | <1.0s   |
| Power Dissipation                                       | $P_d$      | 200mW           |   |
| Minimum Reverse breakdown voltage                       | $V_{(BR)}$ | 70V             | $I_R = 10\mu A$                                   |
| Maximum Forward Voltage                                 | $V_F$      | 410mV<br>1000mV | $I_F=1.0mA$<br>$I_F=15mA$                         |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$      | 0.1 $\mu A$     | $V_R = 50V$                                       |
| Maximum Junction Capacitance                            | $C_T$      | 2.0pF           | Measured at 1.0MHz, $V_R=0.0V$                    |
| Maximum Reverse Recovery Time                           | $t_{rr}$   | 5.0nS           | $I_R=I_F=10mA, I_{rr}=0.1I_R,$<br>$R_L=100\Omega$ |

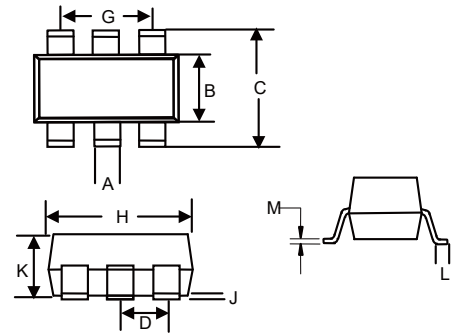
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

**Internal Structure:**



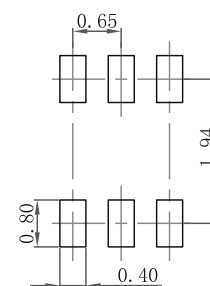
**200mW, 70Volt Schottky Barrier Diode**

**SOT-363**



| DIM | INCHES |       | MM           |      | NOTE |
|-----|--------|-------|--------------|------|------|
|     | MIN    | MAX   | MIN          | MAX  |      |
| A   | 0.006  | 0.014 | 0.15         | 0.35 |      |
| B   | 0.045  | 0.053 | 1.15         | 1.35 |      |
| C   | 0.079  | 0.096 | 2.00         | 2.45 |      |
| D   |        | 0.026 | 0.65 Nominal |      |      |
| G   | 0.047  | 0.055 | 1.20         | 1.40 |      |
| H   | 0.071  | 0.087 | 1.80         | 2.20 |      |
| J   | -----  | 0.004 | -----        | 0.10 |      |
| K   | 0.031  | 0.043 | 0.80         | 1.10 |      |
| L   | 0.010  | 0.018 | 0.26         | 0.46 |      |
| M   | 0.003  | 0.006 | 0.08         | 0.15 |      |

**Suggested Solder Pad Layout**



## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

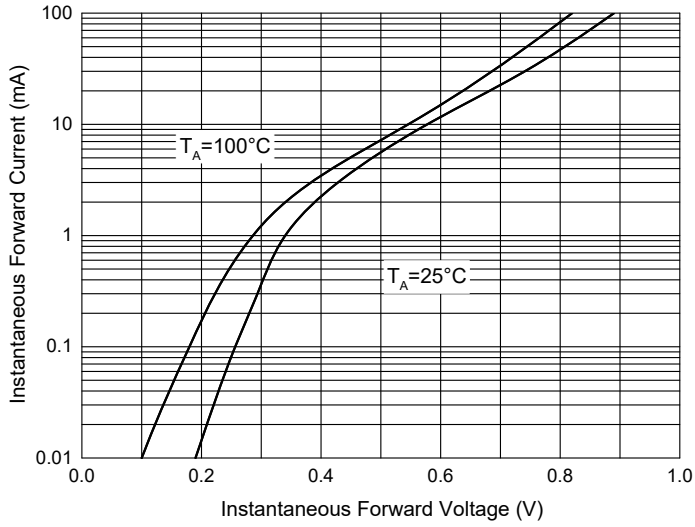


Fig. 2 - Typical Reverse Leakage Characteristics

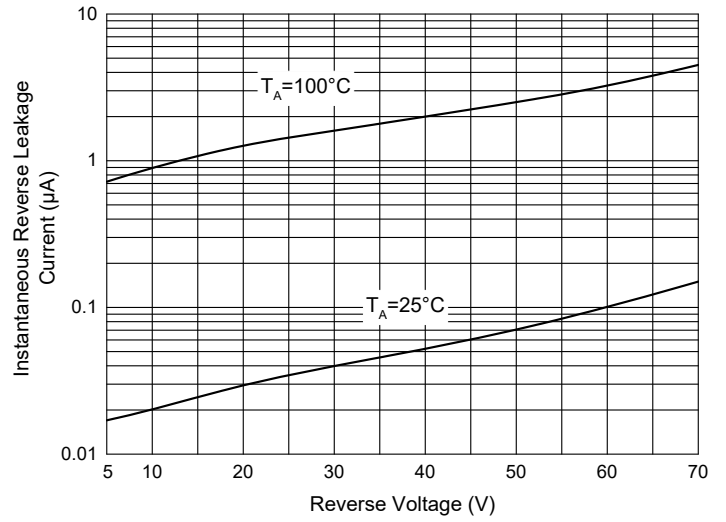
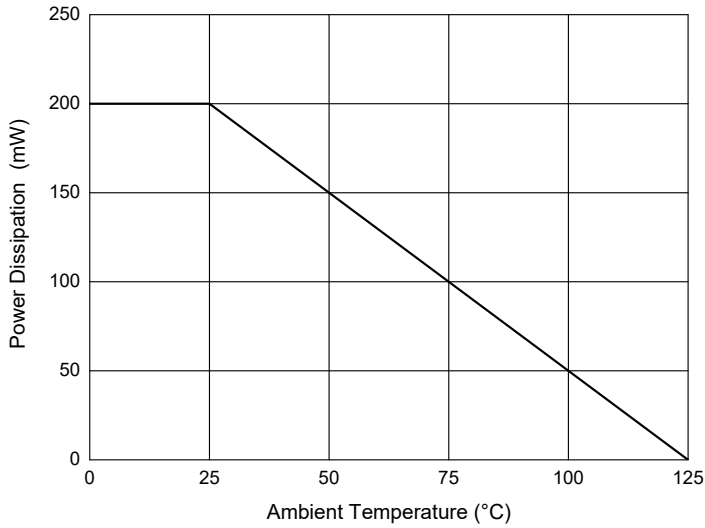


Fig. 3 - Power Derating Curve



## Ordering Information

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

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