

## Features

- Surface Mount Package Ideally Suited for Automatic Insertion
- PN Junction Guard Ring for Transient and ESD Protection
- Low Turn-on Voltage
- Fast Switching
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- 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

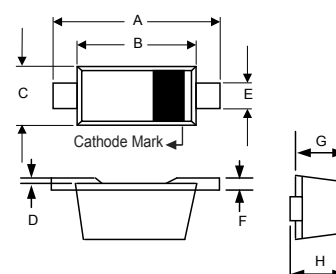
| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------------------------------|---------------------|-----------------------------|
| BAS70X          | 70V                                    | 49V                 | 70V                         |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                 |           |                 |                                                               |
|-------------------------------------------------|-----------|-----------------|---------------------------------------------------------------|
| Average Forward Current                         | $I_F$     | 70mA            |                                                               |
| Peak Forward Surge Current                      | $I_{FSM}$ | 100mA           |                                                               |
| Power Dissipation                               | $P_d$     | 200mW           |                                                               |
| Maximum Forward Voltage                         | $V_F$     | 410mV<br>1000mV | $t_p < 300\mu s, I_F = 1.0mA$<br>$t_p < 300\mu s, I_F = 15mA$ |
| DC Reverse Current At Rated DC Blocking Voltage | $I_R$     | 100nA(Max)      | $t_p < 300\mu s, V_R = 50V$                                   |
| Maximum Junction Capacitance                    | $C_j$     | 2.0pF           | Measured at 1.0MHz, $V_R = 0.0V$                              |
| Maximum Reverse Recovery Time                   | $T_{rr}$  | 5.0ns           | $I_F = I_R = 10mA$<br>$I_R = 1.0mA, R_L = 100\Omega$          |

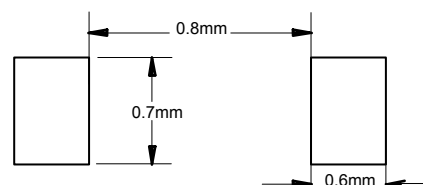
# 200mW, 70Volt Schottky Barrier Diode

## SOD-523



| DIMENSIONS |        |       |      |      |      |
|------------|--------|-------|------|------|------|
| DIM        | INCHES |       | MM   |      | NOTE |
|            | MIN    | MAX   | MIN  | MAX  |      |
| A          | 0.059  | 0.067 | 1.50 | 1.70 |      |
| B          | 0.043  | 0.051 | 1.10 | 1.30 |      |
| C          | 0.030  | 0.033 | 0.75 | 0.85 |      |
| D          | 0.000  | 0.003 | 0.00 | 0.07 |      |
| E          | 0.010  | 0.014 | 0.25 | 0.35 |      |
| F          | 0.003  | 0.008 | 0.08 | 0.20 |      |
| G          | 0.020  | 0.026 | 0.50 | 0.65 |      |
| H          | 0.020  | 0.026 | 0.50 | 0.65 |      |

## Suggested Solder Pad Layout



## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

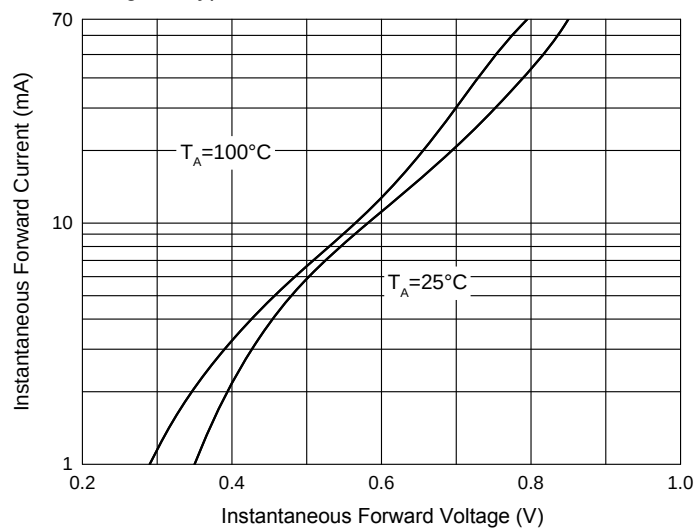


Fig. 2 - Typical Reverse Leakage Characteristics

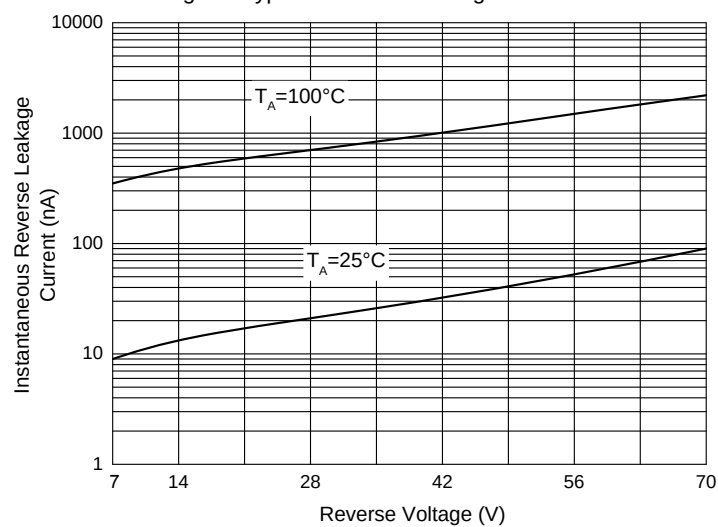
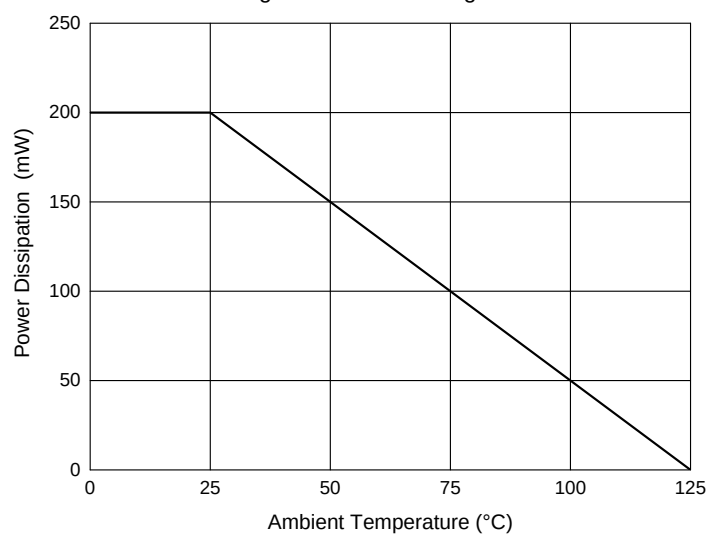


Fig. 3 - Power Derating Curve



## Ordering Information

| Device          | Packing               |
|-----------------|-----------------------|
| Part Number-TP  | Tape&Reel: 8Kpcs/Reel |
| Part Number-T3P | Tape&Reel: 3Kpcs/Reel |

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

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