



# CHENMKO ENTERPRISE CO.,LTD

**BAS70SGP**

## SURFACE MOUNT SCHOTTKY DIODE

VOLTAGE 70 Volts CURRENT 70 mAmperes

Halogens free devices

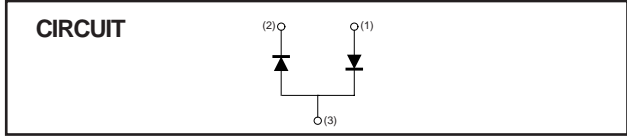
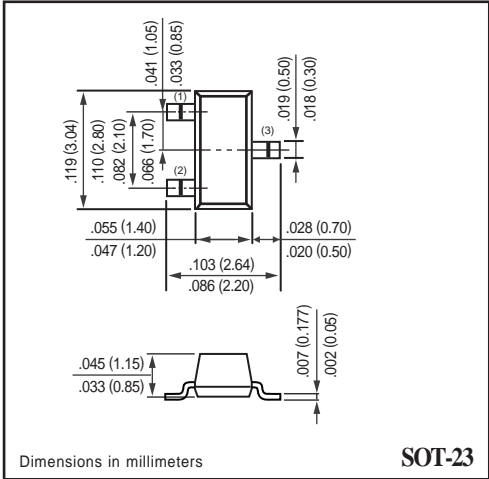
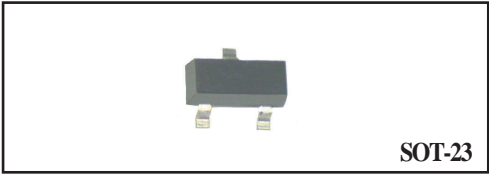
**APPLICATION**  
\* Ultra high speed switching

**FEATURE**  
\* Small surface mounting type. (SOT-23)  
\* High speed. ( $T_{RR}=2.5nSec$  Typ.)  
\* Suitable for high packing density.  
\* Maximum total power dissipation is 200mW.  
\* Peak forward surge current is 100mA.

**CONSTRUCTION**  
\* PN junction guard ring protection

**WEIGHT**  
\* 0.008 grams ( Approx. )

**MARKING**  
\* B4



| RATINGS  | SYMBOL    | BAS70SGP    | UNITS |
|--|-----------|-------------|-------|
| Maximum Recurrent Peak Reverse Voltage                 | $V_{RRM}$ | 70          | Volts |
| Maximum RMS Voltage                                    | $V_{RMS}$ | 49          | Volts |
| Maximum DC Blocking Voltage                            | $V_{DC}$  | 70          | Volts |
| Maximum Average Forward Rectified Current              | $I_o$     | 70          | mAmps |
| Peak Forward Surge Current at 1Sec.                    | $I_{FSM}$ | 100         | mAmps |
| Typical Junction Capacitance between Terminal (Note 1) | $C_J$     | 2.0         | pF    |
| Maximum Reverse Recovery Time (Note 2)                 | $T_{RR}$  | 5.0         | nSec  |
| Maximum Operating Temperature Range                    | $T_J$     | -55 to +125 | °C    |
| Storage Temperature Range                              | $T_{STG}$ | -65 to +150 | °C    |

**ELECTRICAL CHARACTERISTICS** ( At  $T_A = 25^{\circ}C$  unless otherwise noted )

| CHARACTERISTICS                                | SYMBOL          | BAS70SGP | UNITS  |
|--|-----------------|----------|--------|
| Maximum Instantaneous Forward Voltage          | @ $I_F = 1.0mA$ | 410      | mVolts |
|  | @ $I_F = 15mA$  | 1000     |        |
| Maximum Average Reverse Current at $V_R = 50V$ | $I_R$           | 100      | nAmps  |

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 0! volts.  
2. Measured at applied forward current of 10mA and reverse current of 10mA.  
3. ESD sensitive product handling required.

## RATING CHARACTERISTIC CURVES ( BAS70SGP )

FIG. 1 - FORWARD CHARACTERISTICS

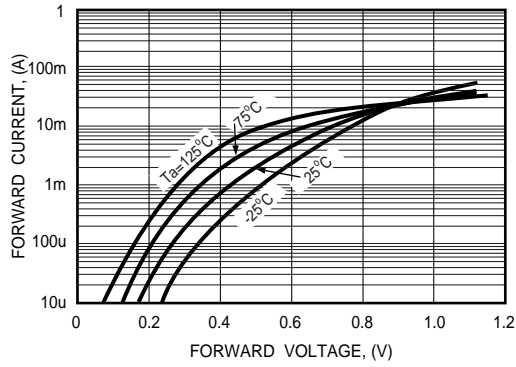


FIG. 2 - REVERSE CHARACTERISTICS

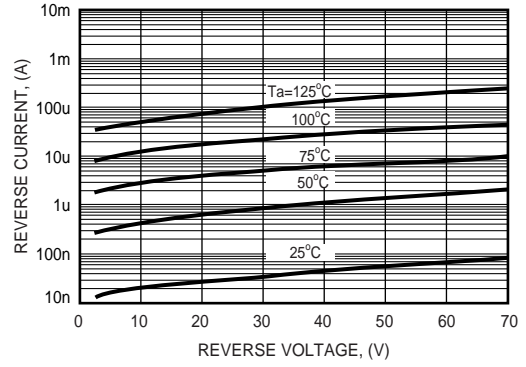


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

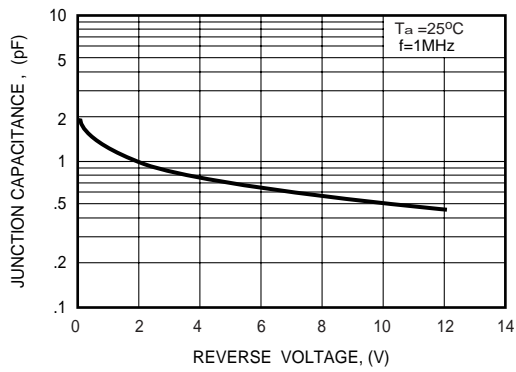


FIG. 4 - TYPICAL FORWARD CURRENT DERATING CURVE

