



CHENMKO ENTERPRISE CO.,LTD

**SURFACE MOUNT
SCHOTTKY DIODE**

VOLTAGE 70 Volts CURRENT 70 mAmperes

BAS70SPT

Lead free devices

APPLICATION

- * Ultra high speed switching

FEATURE

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

CONSTRUCTION

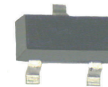
- * PN junction guard ring protection

WEIGHT

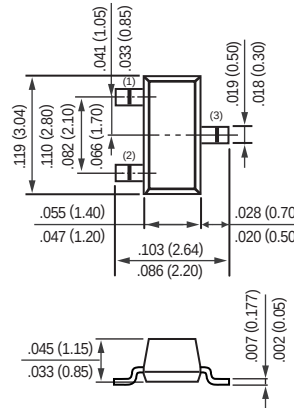
- * 0.008 grams (Approx.)

MARKING

- * B4



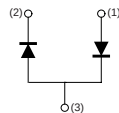
SOT-23



Dimensions in inches and (millimeters)

SOT-23

CIRCUIT



RATINGS	SYMBOL	BAS70SPT	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	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150	$^{\circ}\text{C}$

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

CHARACTERISTICS		SYMBOL	BAS70SPT	UNITS
Maximum Instantaneous Forward Voltage	@ $I_F = 1.0\text{mA}$	V_F	410	mVolts
	@ $I_F = 15\text{mA}$		1000	
Maximum Average Reverse Current at $V_R = 50\text{V}$		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.

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RATING CHARACTERISTIC CURVES (BAS70SPT)

FIG. 1 - FORWARD CHARACTERISTICS

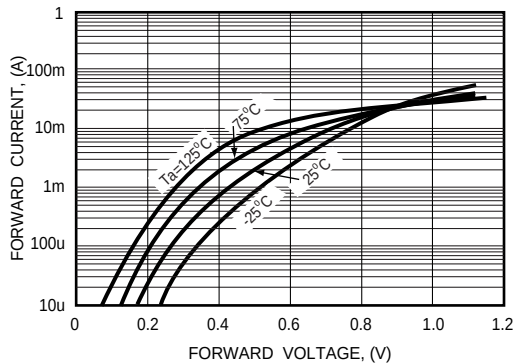


FIG. 2 - REVERSE CHARACTERISTICS

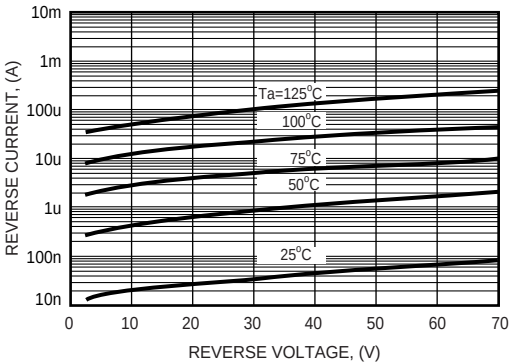


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

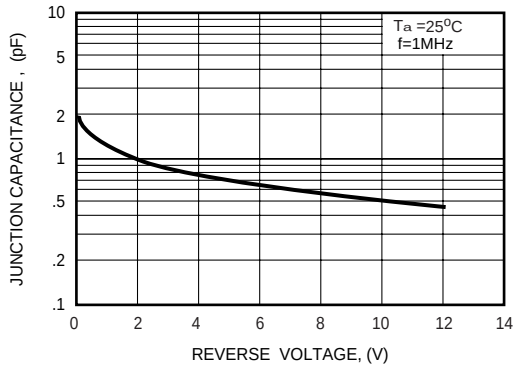


FIG. 4 - TYPICAL FORWARD CURRENT DERATING CURVE

