



CHENMKO ENTERPRISE CO.,LTD

SURFACE MOUNT

SCHOTTKY DIODE

VOLTAGE 70 Volts CURRENT 70 mAmperes

BAS70TCPT

Lead free devices

APPLICATION

- * Ultra high speed switching

FEATURE

- * Small surface mounting type. (SC-75/SOT-416)
- * High speed. ($T_{RR}=2.5\text{nSec}$ Typ.)
- * Suitable for high packing density.
- * Maximum total power dissipation is 150mW.
- * Peak forward surge current is 100mA.

CONSTRUCTION

- * PN junction guard ring protection

WEIGHT

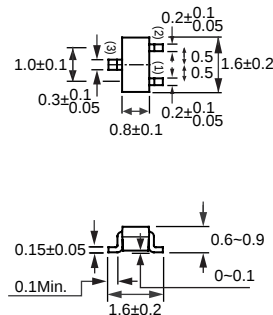
- * 0.002 grams (Approx.)

MARKING

- * TY



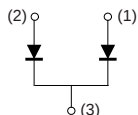
SC-75/SOT-416



Dimensions in millimeters

SC-75/SOT-416

CIRCUIT



RATINGS	SYMBOL	BAS70TCPT	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 $T_A = 25^\circ\text{C}$ unless otherwise noted)

CHARACTERISTICS	SYMBOL	BAS70TCPT	UNITS
Maximum Instantaneous Forward Voltage	@ $I_F = 1.0\text{mA}$	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 0.0 volts.
 2. Measured at applied forward current of 10mA and reverse current of 10mA.
 3. ESD sensitive product handling required.

2003-09

RATING CHARACTERISTIC CURVES (BAS70TCPT)

FIG. 1 - FORWARD CHARACTERISTICS

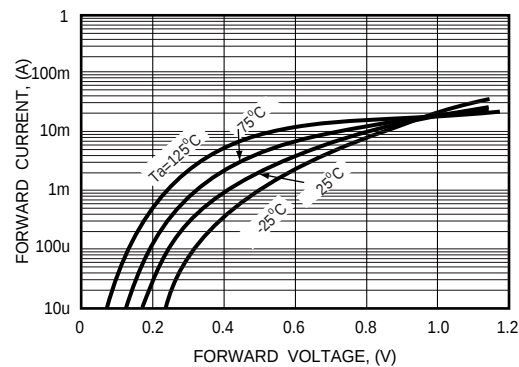


FIG. 2 - REVERSE CHARACTERISTICS

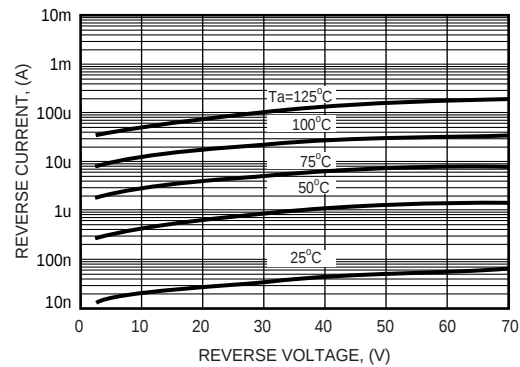


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

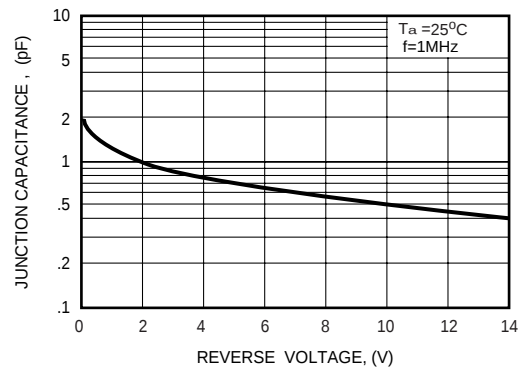


FIG. 4 - TYPICAL FORWARD CURRENT DERATING CURVE

