



CHENMKO ENTERPRISE CO.,LTD

Lead free devices

SURFACE MOUNT SCHOTTKY DIODE

VOLTAGE 40 Volts CURRENT 0.2 Ampere

BAS40CPT

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 current is 300mA.

CONSTRUCTION

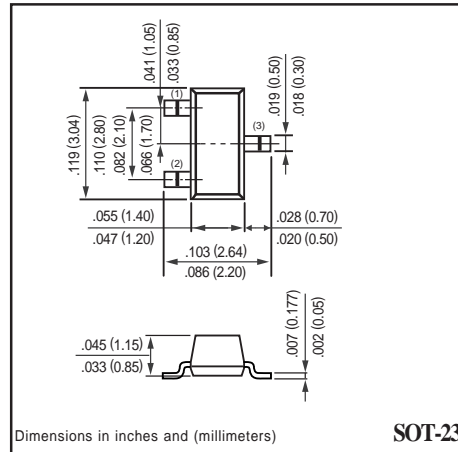
* Silicon epitaxial planar

MARKING

* BC

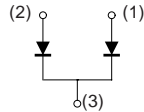


SOT-23



SOT-23

CIRCUIT



RATINGS	SYMBOL	BAS40CPT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	Volts
Maximum RMS Voltage	V_{RMS}	28	Volts
Maximum DC Blocking Voltage	V_{DC}	40	Volts
Maximum Average Forward Rectified Current	I_O	0.2	Amps
Peak Forward Surge Current at 1Sec.	I_{FSM}	0.6	Amps
Typical Junction Capacitance between Terminal (Note 1)	C_J	5.0	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	BAS40CPT	UNITS
Maximum Instantaneous Forward Voltage	@ $I_F = 1.0\text{mA}$	380	mVolts
	@ $I_F = 40\text{mA}$	1000	
Maximum Average Reverse Current at $V_R = 30\text{V}$	I_R	200	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.

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RATING CHARACTERISTIC CURVES (BAS40CPT)

FIG. 1 - FORWARD CHARACTERISTICS

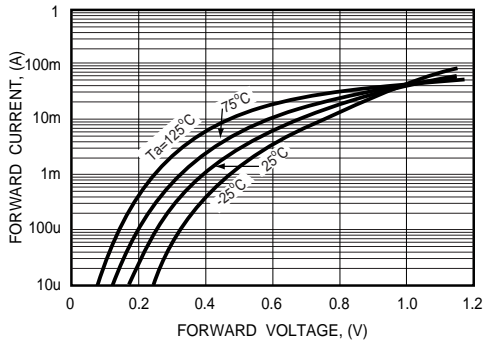


FIG. 2 - REVERSE CHARACTERISTICS

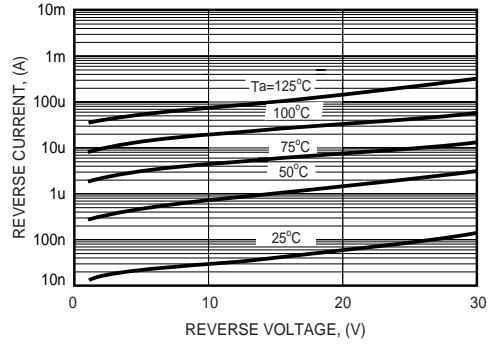


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

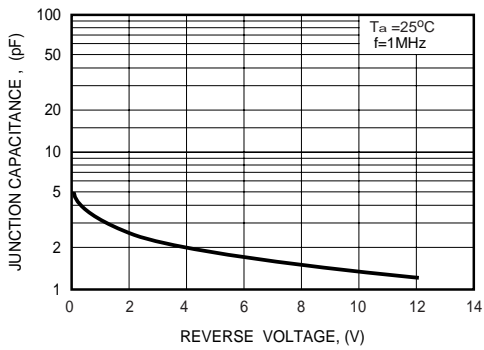


FIG. 4 - TYPICAL FORWARD CURRENT DERATING CURVE

