



# CHENMKO ENTERPRISE CO.,LTD

**BAT54WCGP**

## SURFACE MOUNT

SCHOTTKY BARRIER DIODE

VOLTAGE 30 Volts CURRENT 0.2 Ampere

Halogens free devices

### APPLICATION

- \* Ultra high speed switching

### FEATURE

- \* Small surface mounting type. (SC-70/SOT-323)
- \* High speed. ( $T_{RR}=2.5nSec$  Typ.)
- \* Suitable for high packing density.
- \* Maximum total power dissipation is 200mW.
- \* Peak forward current is 300mA.

### CONSTRUCTION

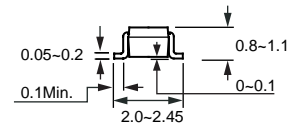
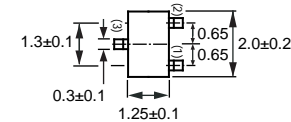
- \* Silicon epitaxial planar

### MARKING

- \* 3I



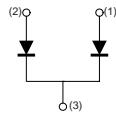
SC-70/SOT-323



Dimensions in millimeters

SC-70/SOT-323

### CIRCUIT



### MAXIMUM RATINGS ( At $T_A = 25^{\circ}C$ unless otherwise noted )

RATINGS	SYMBOL	BAT54WCGP	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	30	Volts
Maximum RMS Voltage	$V_{RMS}$	21	Volts
Maximum DC Blocking Voltage	$V_{DC}$	30	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)	$C_J$	10	pF
Maximum Reverse Recovery Time (Note 2)	$T_{RR}$	5.0	nSec
Maximum Operating Temperature Range	$T_J$	+150	$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^{\circ}C$

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

CHARACTERISTICS	SYMBOL	BAT54WCGP	UNITS
Maximum Instantaneous Forward Voltage	$V_F$	@ $I_F = 0.1$ mA	240
		@ $I_F = 1.0$ mA	320
		@ $I_F = 10$ mA	400
		@ $I_F = 30$ mA	500
		@ $I_F = 100$ mA	1000
Maximum Average Reverse Current at $V_R = 25V$	$I_R$	2.0	$\mu$ Amps

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

## RATING CHARACTERISTIC CURVES ( BAT54WCGP )

FIG. 1 - FORWARD CHARACTERISTICS

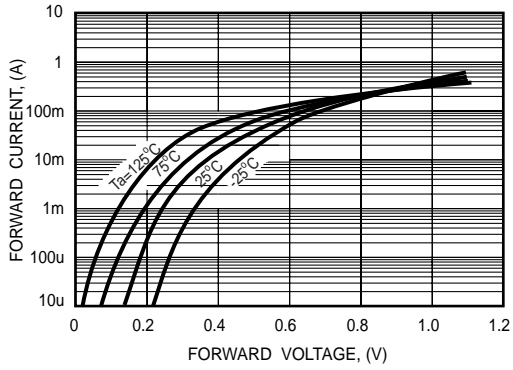


FIG. 2 - REVERSE CHARACTERISTICS

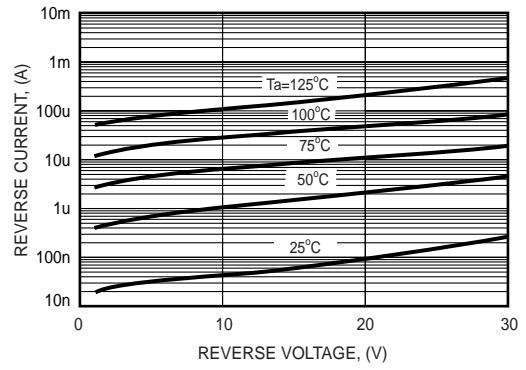


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

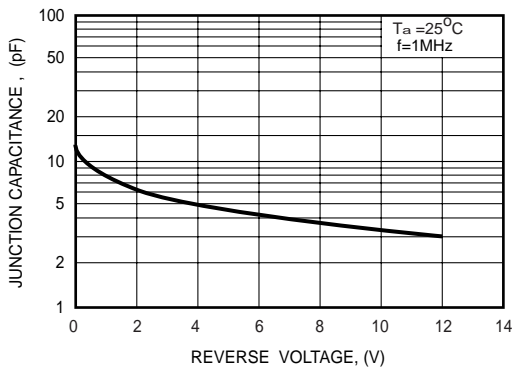


FIG. 4 - TYPICAL FORWARD CURRENT DERATING CURVE

