



# CHENMKO ENTERPRISE CO.,LTD

Lead free devices

## SURFACE MOUNT SWITCHING DIODE

VOLTAGE 85 Volts CURRENT 0.15 Ampere

**BAV99TPT**

### APPLICATION

- \* Ultra high speed switching

### FEATURE

- \* Small surface mounting type. (SC-75/SOT-416)
- \* High speed. ( $T_{RR}=1.5nSec$  Typ.)
- \* Suitable for high packing density.
- \* Maximum total power dissipation is 300mW.
- \* Peak forward current is 450mA.

### CONSTRUCTION

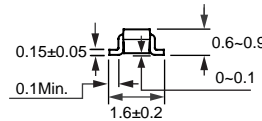
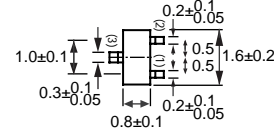
- \* Silicon epitaxial planar

### MARKING

- \* A7



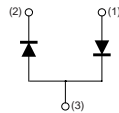
SC-75/SOT-416



Dimensions in millimeters

SC-75/SOT-416

### CIRCUIT



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

RATINGS	SYMBOL	BAV99TPT	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	85	Volts
Maximum RMS Voltage	$V_{RMS}$	60	Volts
Maximum DC Blocking Voltage	$V_{DC}$	75	Volts
Maximum Average Forward Rectified Current	$I_o$	0.15	Amps
Peak Forward Surge Current at 1uSec.	$I_{FSM}$	4.0	Amps
Typical Junction Capacitance between Terminal (Note 1)	$C_J$	1.5	pF
Maximum Reverse Recovery Time (Note 2)	$T_{RR}$	4.0	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	BAV99TPT	UNITS
Maximum Instantaneous Forward Voltage at $I_F = 150mA$	$V_F$	1.25	Volts
Maximum Average Reverse Current at $V_R = 75V$	$I_R$	1.0	uAmps

- NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 0 volts.  
 2. Measured at applied forward current of 10mA and reverse voltage of 10.0 volts.  
 3. ESD sensitive product handling required.

## RATING CHARACTERISTIC CURVES ( BAV99TPT )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

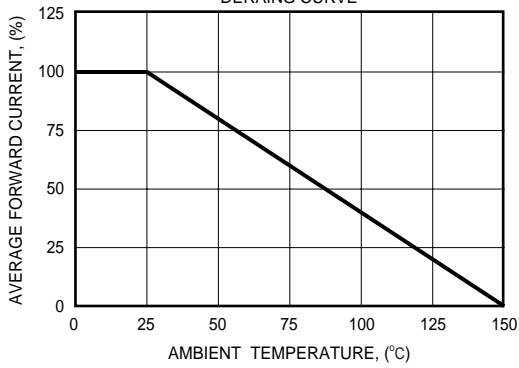


FIG. 2 - FORWARD CHARACTERISTICS

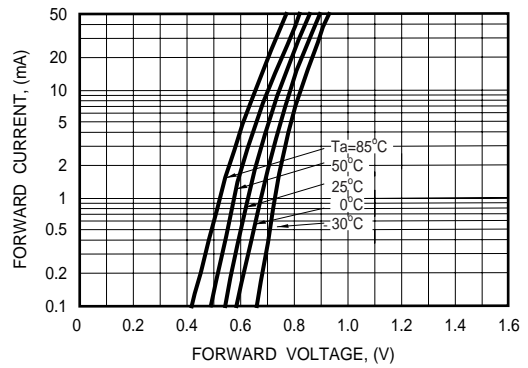


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

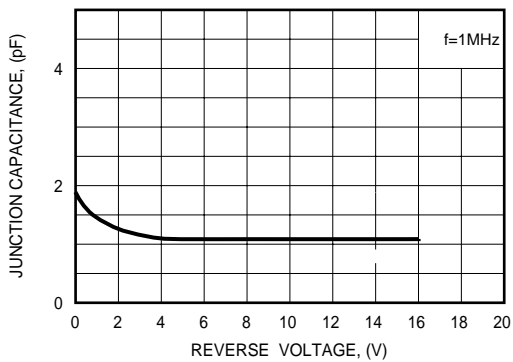


FIG. 4 - REVERSE CHARACTERISTICS

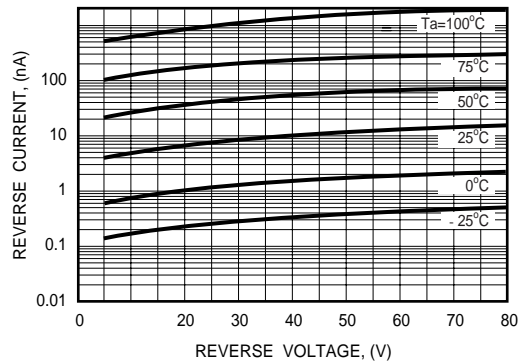


FIG. 5 - REVERSE RECOVERY TIME

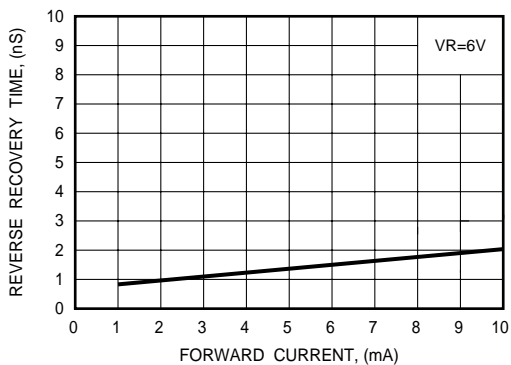


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

