



# CHENMKO ENTERPRISE CO.,LTD

**BAS16VTWPT**

## SURFACE MOUNT

FAST SWITCHING DIODE ARRAY

VOLTAGE 75 Volts CURRENT 150 mAmpere

Lead free devices

### APPLICATION

- \* Ultra high speed switching
- \* For general purpose switching application

### FEATURE

- \* Small surface mounting type. (SOT-563)
- \* High speed. ( $T_{RR}= 1.5nSec$  Typ.)
- \* Suitable for high packing density.
- \* Maximum total power dissipation is 200mW.
- \* Peak forward current is 300mA.
- \* Lead free devices

### CONSTRUCTION

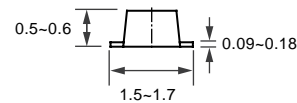
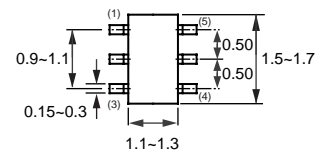
- \* Silicon epitaxial planar

### MARKING

- \* DA



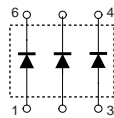
SOT-563



Dimensions in millimeters

SOT-563

### CIRCUIT



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

RATINGS	SYMBOL	BAS16VTWPT	UNITS
Maximum Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	Volts
Maximum RMS Voltage	$V_{RMS}$	53	Volts
Maximum Repetitive Peak Reverse and DC Blocking Voltage	$V_{RRM}, V_{DC}$	75	Volts
Maximum Average Forward Rectified Current	$I_O$	150	mAmps
Non-Repetitive Peak Forward Surge Current	@ $t=1.0\mu Sec$	2.0	Amps
	@ $t=1.0Sec$	1.0	
Typical Junction Capacitance between Terminal (Note 1)	$C_J$	2.0	pF
Maximum Reverse Recovery Time (Note 2)	$T_{RR}$	4.0	nSec
Thermal Resistance Junction to Ambient (Note 3)	$R_{\theta JA}$	625	$^{\circ}C/W$
Maximum Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150	$^{\circ}C$

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

CHARACTERISTICS	SYMBOL	BAS16VTWPT	UNITS
Maximum Instantaneous Forward Voltage	$V_F$	@ $I_F=1.0mA$	0.715
		@ $I_F=10mA$	0.855
		@ $I_F=50mA$	1.00
		@ $I_F=150mA$	1.25
Maximum Average Reverse Current	$I_R$	@ $V_R=20V$	25
		@ $V_R=75V$	1.0
		@ $V_R=25V, T_J=150^{\circ}C$	30
		@ $V_R=75V, T_J=150^{\circ}C$	50

- 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. Device mounted on FR-4 by 1 inch X 0.85 inch X 0.062 inch
  4. ESD sensitive product handling required.

## RATING CHARACTERISTIC CURVES ( BAS16VTWPT )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

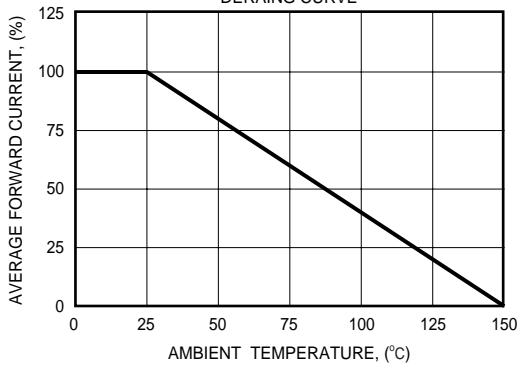


FIG. 2 - FORWARD CHARACTERISTICS

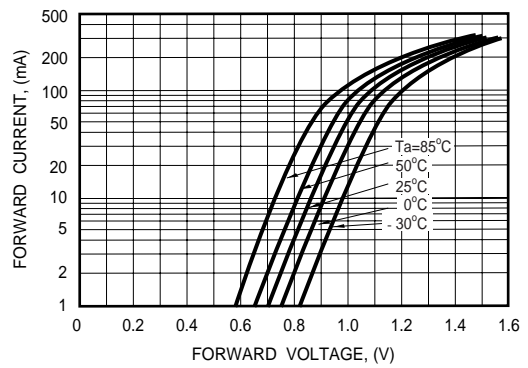


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

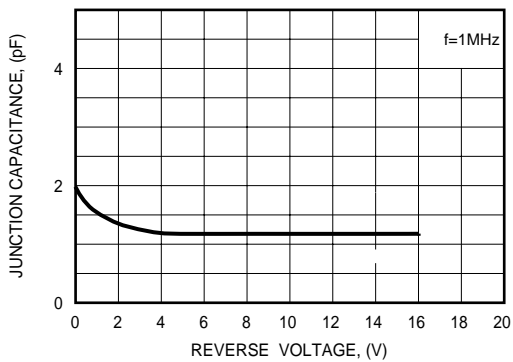


FIG. 4 - REVERSE CHARACTERISTICS

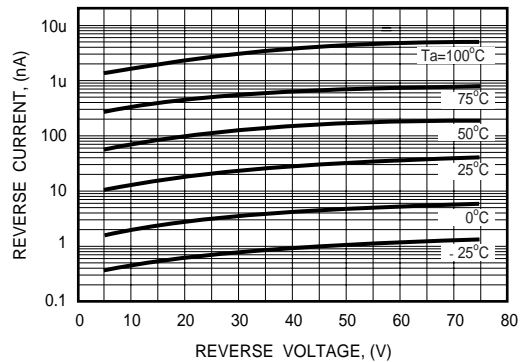


FIG. 5 - REVERSE RECOVERY TIME

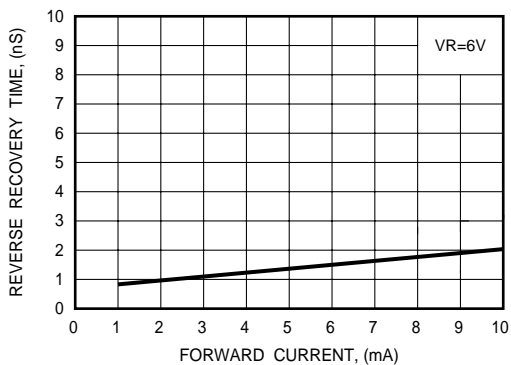


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

