



**CHENMKO ENTERPRISE CO.,LTD**

*Halogens free devices*

**SURFACE MOUNT**

**FAST SWITCHING DIODE ARRAY**

**VOLTAGE 75 Volts CURRENT 215 mAmpere**

**BAV99DGP**

**APPLICATION**

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

**FEATURE**

- \* Small surface mounting type. (SC-88/SOT-363)
- \* High speed. (TRR=1.5nSec Typ.)
- \* Suitable for high packing density.
- \* Maximum total power dissipation is 300mW.
- \* Peak forward current is 350mA.

**CONSTRUCTION**

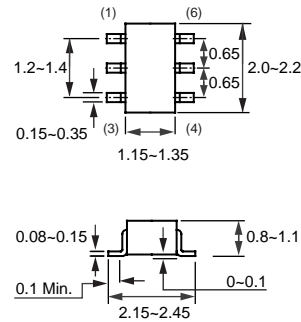
- \* Silicon epitaxial planar

**MARKING**

- \* 7D



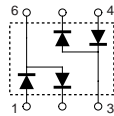
**SC-88/SOT-363**



Dimensions in millimeters

**SC-88/SOT-363**

**CIRCUIT**



**MAXIMUM RATINGS** ( At TA = 25°C unless otherwise noted )

RATINGS	SYMBOL	BAV99DGP	UNITS
Maximum Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	53	Volts
Maximum Repetitive Peak Reverse and DC Blocking Voltage	V <sub>RRM, VDC</sub>	75	Volts
Maximum Average Forward Rectified Current	I <sub>O</sub>	215	mAmps
Non-Repetitive Peak Forward Surge Current	@t=1.0uSec	2.0	Amps
	@t=1.0Sec	1.0	
Typical Junction Capacitance between Terminal (Note 1)	C <sub>J</sub>	2.0	pF
Maximum Reverse Recovery Time (Note 2)	T <sub>RR</sub>	4.0	nSec
Thermal Resistance Junction to Ambient (Note 3)	R <sub>θJA</sub>	625	°C/W
Maximum Operating and Storage Temperature Range	T <sub>J, TSTG</sub>	-65 to +150	°C

**ELECTRICAL CHARACTERISTICS** ( At TA = 25°C unless otherwise noted )

CHARACTERISTICS	SYMBOL	BAV99DGP	UNITS
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	@I <sub>F</sub> =1.0mA	0.715
		@I <sub>F</sub> =10mA	0.855
		@I <sub>F</sub> =50mA	1.00
		@I <sub>F</sub> =150mA	1.25
Maximum Average Reverse Current	I <sub>R</sub>	@V <sub>R</sub> =20V	25
		@V <sub>R</sub> =75V	2.5
		@V <sub>R</sub> =25V, T <sub>J</sub> =150°C	30
		@V <sub>R</sub> =75V, T <sub>J</sub> =150°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 ( BAV99DGP )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

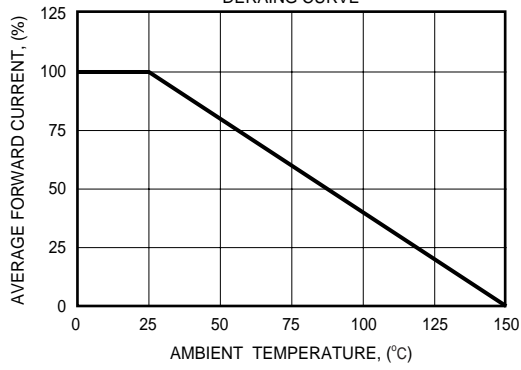


FIG. 2 - FORWARD CHARACTERISTICS

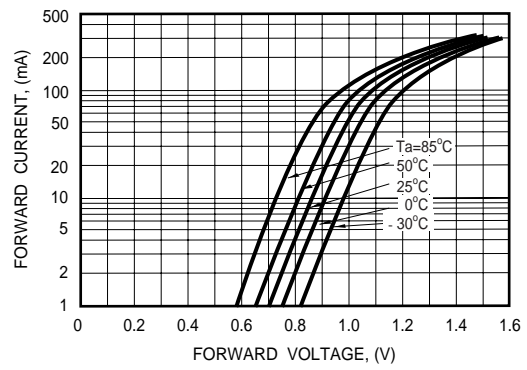


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

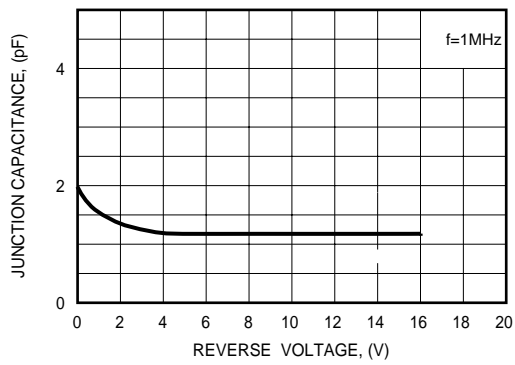


FIG. 4 - REVERSE CHARACTERISTICS

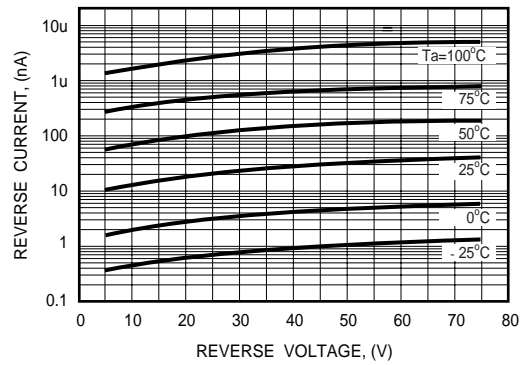


FIG. 5 - REVERSE RECOVERY TIME

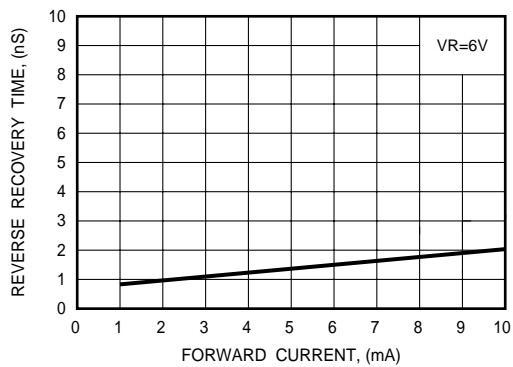


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

