CHENMKO ENTERPRISE CO.,LTD

SURFACE MOUNT

FAST SWITCHING DIODE ARRAY

VOLTAGE 75 Volts CURRENT 215 mAmpere

BAV99BDWPT

Lead free devices

APPLICATION

* Ultra high speed switching
* For general purpose switching application

FEATURE

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

CONSTRUCTION

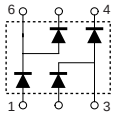
* Silicon epitaxial planar

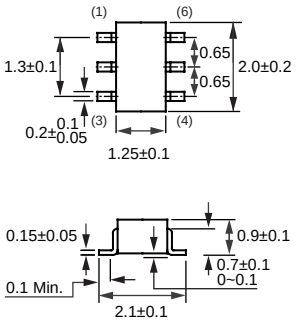
MARKING

DN

SC-88/SOT-363

CIRCUIT





Dimensions in millimeters

SC-88/SOT-363

MAXIMUM RATINGES (At T_A = 25°C unless otherwise noted)

RATINGS		SYMBOL	BAV99BDWPT	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	215	mAmps
Non-Repetitive Peak Forward Surge Current	@t=1.0uSec @t=1.0Sec	I_{FSM}	2.0 1.0	Amps
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	°C/W
Maximum Operating and Storage Temperature Range		T_J,T_{STG}	-65 to +150	°C

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

CHARACTERISTICS		SYMBOL	BAV99BDWPT	UNITS
Maximum Instantaneous Forward Voltage	@I_F=1.0mA @I_F=10mA @I_F=50mA @I_F=150mA	V_F	0.715 0.855 1.00 1.25	Volts
Maximum Average Reverse Current	@V_R=20V @V_R=75V @V_R=25V, T_J=150°C @V_R=75V, T_J=150°C	I_R	25 2.5 30 50	nAmps uAmps uAmps uAmps

2004-8

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 0 volts.
2. Measured at applied froward 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 (BAV99BDWPT)

FIG. 1 - TYPICAL FORWARD CURRENT DERAING CURVE

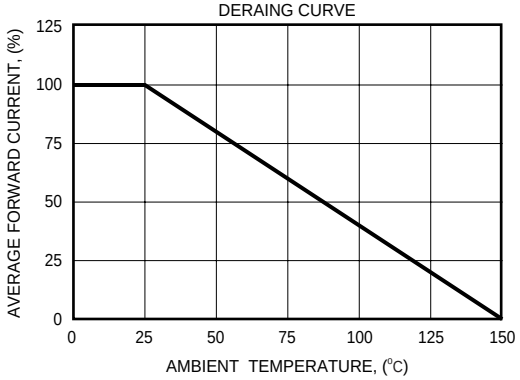


FIG. 2 - FORWARD CHARACTERISTICS

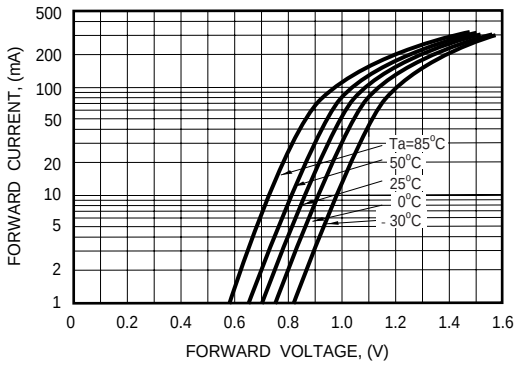


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

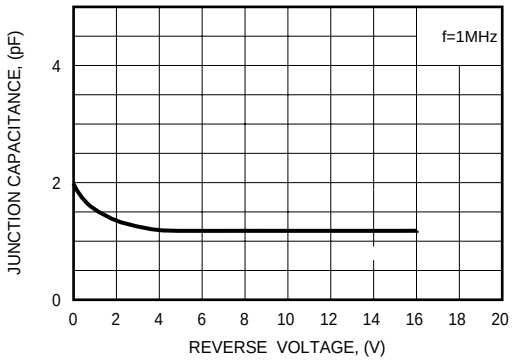


FIG. 4 - REVERSE CHARACTERISTICS

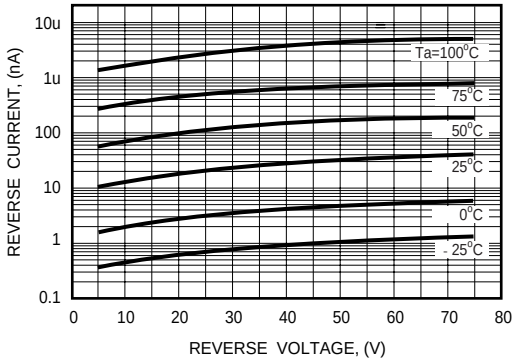


FIG. 5 - REVERSE RECOVERY TIME

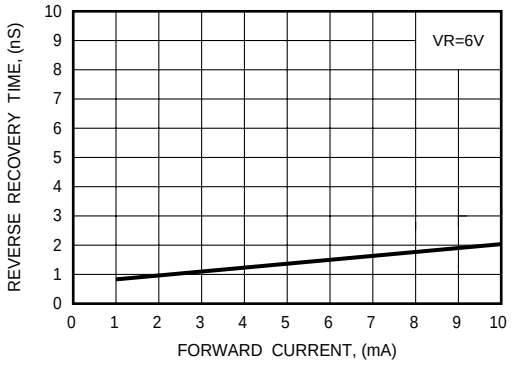
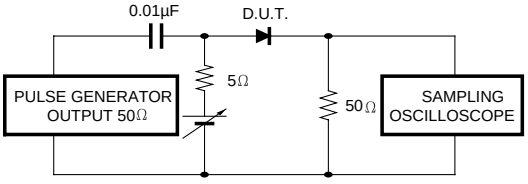



FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT