



CHENMKO ENTERPRISE CO.,LTD

SURFACE MOUNT

SWITCHING DIODE ARRAY

VOLTAGE 80 Volts CURRENT 500 mAmpere

CH004SDWPT

Lead free devices

APPLICATION

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

FEATURE

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

CONSTRUCTION

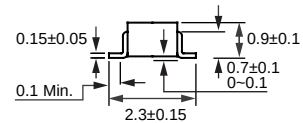
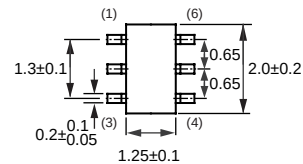
- * Silicon epitaxial planar

MARKING

- * DD



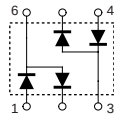
SC-88/SOT-363



Dimensions in millimeters

SC-88/SOT-363

CIRCUIT



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

RATINGS	SYMBOL	CH004SDWPT	UNITS
Maximum Non-Repetitive Peak Reverse Voltage	V_{RM}	100	Volts
Maximum RMS Voltage	V_{RMS}	80	Volts
Maximum Repetitive Peak Reverse and DC Blocking Voltage	V_{RRM}, V_{DC}	80	Volts
Maximum Average Forward Rectified Current	I_O	500	mAmps
Non-Repetitive Peak Forward Surge Current	@ $t=1.0\mu\text{Sec}$	20	Amps
	@ $t=1.0\text{Sec}$	2.0	
Typical Junction Capacitance between Terminal (Note 1)	C_J	4.0	pF
Maximum Reverse Recovery Time (Note 2)	T_{RR}	4.0	nSec
Thermal Resistance Junction to Ambient (Note 3)	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Maximum Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	$^\circ\text{C}$

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

CHARACTERISTICS		SYMBOL	CH004SDWPT	UNITS
Maximum Instantaneous Forward Voltage	@If=5.0mA	VF	0.72	Volts
	@If=20mA		0.93	
	@If=100mA		1.00	
	@If=150mA		1.25	
Maximum Average Reverse Current	@VR=20V	IR	25	nAmps
	@VR=70V		0.1	uAmps
	@VR=25V, TJ=150°C		30	uAmps
	@VR=75V, TJ=150°C		50	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 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.

2004-10

RATING CHARACTERISTIC CURVES (CH004SDWPT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

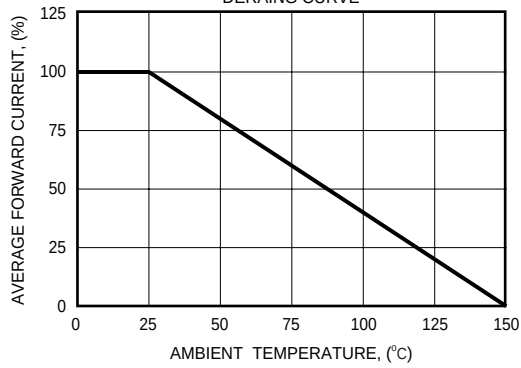


FIG. 2 - FORWARD CHARACTERISTICS

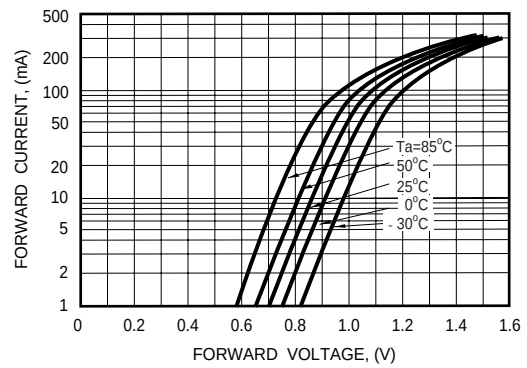


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

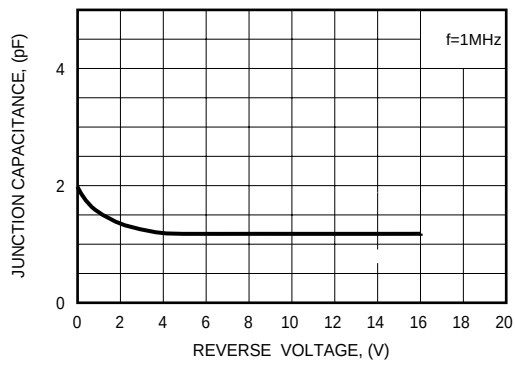


FIG. 4 - REVERSE CHARACTERISTICS

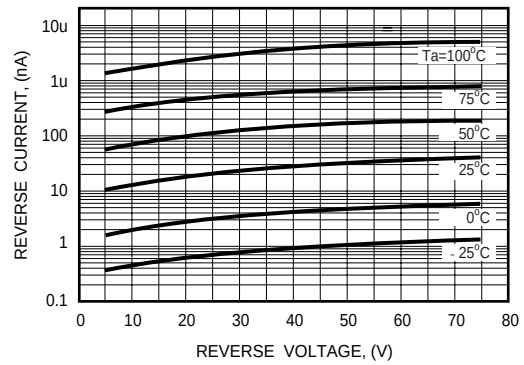


FIG. 5 - REVERSE RECOVERY TIME

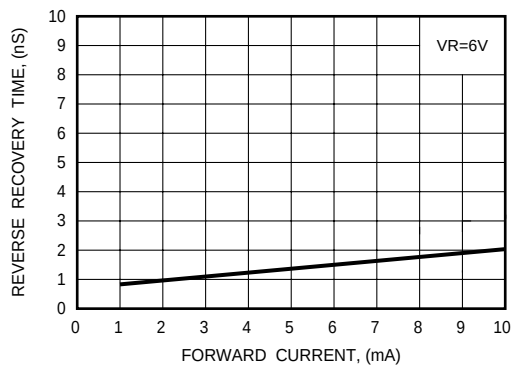


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

