



# CHENMKO ENTERPRISE CO.,LTD

**CH781UPT**

## SURFACE MOUNT SCHOTTKY DIODE ARRAY

VOLTAGE 40 Volts CURRENT 175 mAmperes

Lead free devices

**APPLICATION**

- \* Ultra high speed switching

**FEATURE**

- \* Small surface mounting type. (SC-88/SOT-363)
- \* High speed. ( $T_{RR}=8.0nSec$  Typ.)
- \* Suitable for high packing density.
- \* Maximum total power dissipation is 200mW.
- \* Peak forward surge current is 1.0A.
- \* Schottky diode array .

**CONSTRUCTION**

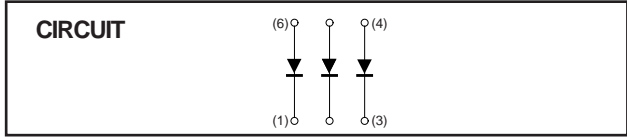
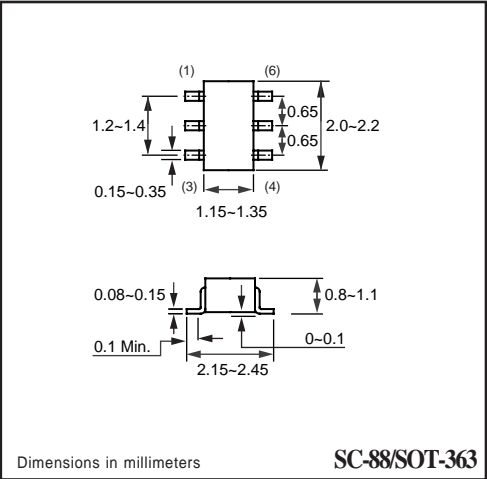
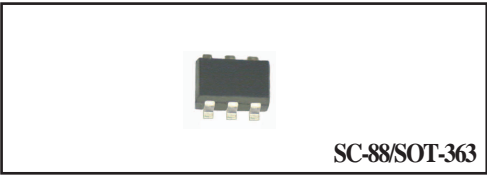
- \* PN junction guard ring protection

**WEIGHT**

- \* 0.008 grams ( Approx.)

**MARKING**

- \* JF



RATINGS	SYMBOL	CH781UPT	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	40	Volts
Maximum RMS Voltage	$V_{RMS}$	28	Volts
Maximum DC Blocking Voltage	$V_{DC}$	40	Volts
Maximum Forward Continuous Current (Note 1)	$I_{FM}$	350	mAmps
Maximum Average Forward Rectified Current	$I_o$	175	mAmps
Non-Repetitive Peak Forward Surge Current at $t < 1mSec.$	$I_{FSM}$	1.0	Amps
Typical Junction Capacitance between Terminal (Note 2)	$C_J$	50.0	pF
Typical Reverse Recovery Time (Note 3)	$T_{RR}$	10.0	nSec
Typical Thermal Resistance	$R_{\theta JA}$	500	$^{\circ}C/W$
Maximum Operating Temperature Range	$T_J$	-55 to +125	$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to +125	$^{\circ}C$

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

CHARACTERISTICS	SYMBOL	CH781UPT	UNITS
Maximum Instantaneous Forward Voltage	$V_F$	@ $I_F = 1mA$	0.30
		@ $I_F = 5mA$	0.35
		@ $I_F = 20mA$	0.37
		@ $I_F = 100mA$	0.50
Maximum Average Reverse Current	$I_R$	@ $V_R = 10V$	2.0
		@ $V_R = 30V$	5.0

NOTES : 1. The maximum rating of single diode ( D1 or D2 or D3 ). the maximum rating per diode are 75% of the ratings for single diode operation as using two or three diodes. 2003-04

2. Measured at 1.0 MHz and applied reverse voltage of 0.0 volts.

3. Measured at applied forward current of 200mA and reverse current of 200mA @  $I_{RR}=0.1I_R$ .

4. ESD sensitive product handling required.

## RATING CHARACTERISTIC CURVES ( CH781UPT )

FIG. 1 - FORWARD CHARACTERISTICS

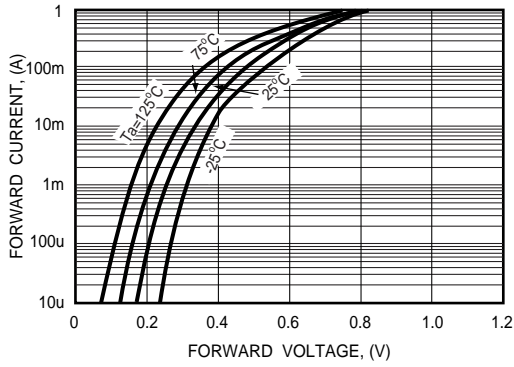


FIG. 2 - REVERSE CHARACTERISTICS

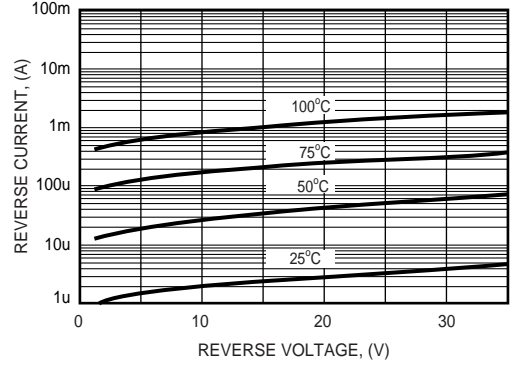


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

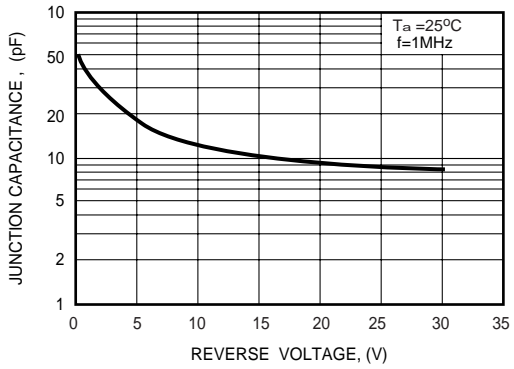


FIG. 4 - TYPICAL FORWARD CURRENT DERATING CURVE

