



# CHENMKO ENTERPRISE CO.,LTD

**LL4448PT**

## SURFACE MOUNT SWITCHING DIODE

VOLTAGE 75 Volts CURRENT 150 mAmpere

Lead free devices

### APPLICATION

- \* Ultra high speed switching

### FEATURE

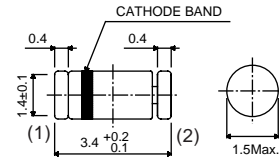
- \* Small surface mounting type. (MINI-MELF)
- \* High speed. ( $T_{RR}=4.0nSec$  Typ.)
- \* Suitable for high packing density.
- \* Maximum total power dissipation is 300mW.
- \* Peak forward current is 500mA.

### CONSTRUCTION

- \* Silicon epitaxial planar



Mini-Melf



Dimensions in millimeters

Mini-Melf

### CIRCUIT



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

RATINGS	SYMBOL	LL4448PT	UNITS
Maximum Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	Volts
Maximum Repetitive Peak Reverse Voltage Maximum Working Peak Reverse Voltage Maximum DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_{DC}$	75	Volts
Maximum RMS Voltage	$V_{RMS}$	53	Volts
Maximum Average Forward Rectified Current	$I_O$	150	mAmps
Repetitive Peak Forward Current	$I_{FRM}$	500	mAmps
Peak Forward Surge Current at 1uSec.	@1Sec	1.0	Amps
	@1.0uSec	2.0	Amps
Typical Junction Capacitance between Terminal (Note 1)	$C_J$	4.0	pF
Maximum Reverse Recovery Time (Note 2)	$t_{rr}$	4.0	nSec
Maximum Thermal Resistance	$R_{\theta JA}$	350	$^\circ C/W$
Maximum Operating and Storage Temperaturd Range	$T_{J,TSTG}$	-65 to +175	$^\circ C$

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

CHARACTERISTICS	SYMBOL	LL4448PT	UNITS
Maximum Instantaneous Forward Voltage	@ $I_F = 5.0$ mA	0.72	Volts
	@ $I_F = 100$ mA	1.0	Volts
Maximum Average Reverse Current	$V_R = 20V$ @ $T_J = 25^\circ C$	25nA	uAmps
	$V_R = 75V$ @ $T_J = 25^\circ C$	5.0	uAmps
	$V_R = 20V$ @ $T_J = 150^\circ C$	50	uAmps

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 0 volts.

2. Measured at applied forward current of 10 mA, reverse current of 1.0 mA, Reverse voltage of 6.0 volts and  $R_L = 100$  ohms.

3. ESD sensitive product handling required.

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## RATING CHARACTERISTIC CURVES ( LL4448PT )

FIG. 1 - FORWARD CHARACTERISTICS

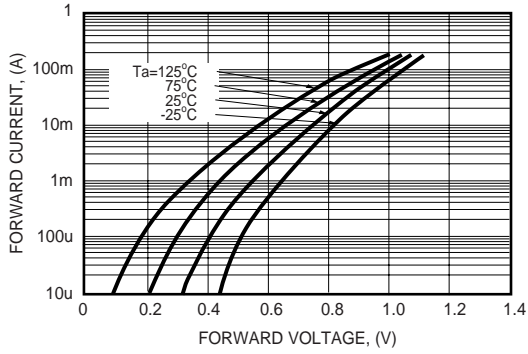


FIG. 2 - REVERSE CHARACTERISTICS

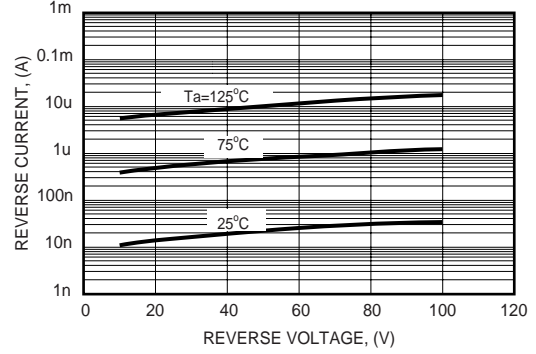


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

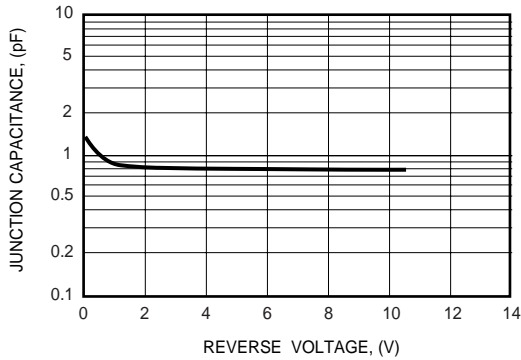


FIG. 4 - REVERSE RECOVERY TIME CHARACTERISTICS

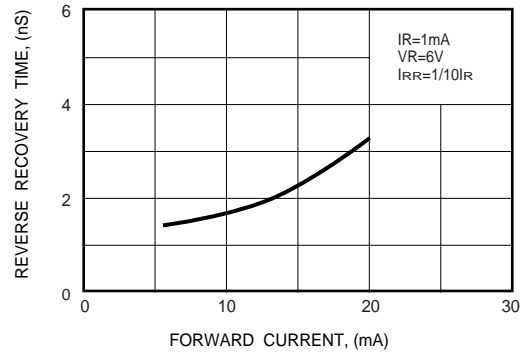


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

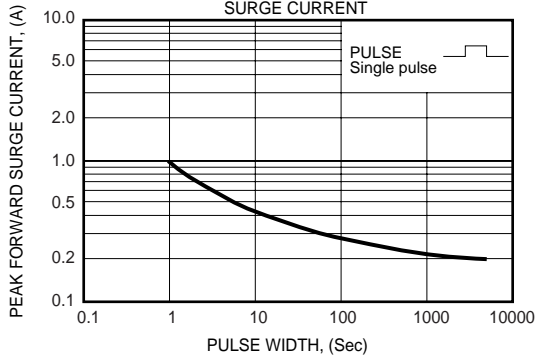


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

