



# CHENMKO ENTERPRISE CO.,LTD

**LL4148PT**

## SURFACE MOUNT SWITCHING DIODE

VOLTAGE 75 Volts CURRENT 0.15 Ampere

*Lead free devices*

### APPLICATION

- \* Ultra high speed switching

### FEATURE

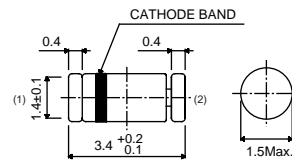
- \* Small surface mounting type. (MINI-MELF)
- \* High speed. (TRR=4.0nSec Typ.)
- \* Suitable for high packing density.
- \* Maximum total power dissipation is 300mW.
- \* Peak forward current is 500mA.

### CONSTRUCTION

- \* Silicon epitaxial planar



Mini-Melf



Dimensions in millimeters

Mini-Melf

### CIRCUIT



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

RATINGS	SYMBOL	LL4148PT	UNITS
Maximum Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	Volts
Maximum Repetitive Peak Reverse Voltage Maximum Working Peak Reverse Voltage Maximum DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>DC</sub>	75	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	53	Volts
Maximum Average Forward Rectified Current	I <sub>O</sub>	0.15	Amps
Peak Forward Surge Current at	@1Sec	1.0	Amps
	@1.0uSec	2.0	
Typical Junction Capacitance between Terminal (Note 1)	C <sub>J</sub>	4.0	pF
Maximum Reverse Recovery Time (Note 2)	t <sub>rr</sub>	4.0	nSec
Maximum Thermal Resistance	R <sub>θJA</sub>	350	°C/W
Maximum Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-65 to +150	°C

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

CHARACTERISTICS	SYMBOL	LL4148PT	UNITS
Maximum Instantaneous Forward Voltage at I <sub>F</sub> = 10 mA	V <sub>F</sub>	1.0	Volts
Maximum Average Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 20V @T <sub>J</sub> =25°C	5.0
		V <sub>R</sub> = 75V @T <sub>J</sub> =25°C	25
		V <sub>R</sub> = 20V @T <sub>J</sub> =150°C	30
		V <sub>R</sub> = 70V @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 10 mA, reverse current of 1.0 mA, Reverse voltage of 6.0 volts and R<sub>L</sub>= 100 ohms.

3. ESD sensitive product handling required.

## RATING CHARACTERISTIC CURVES ( LL4148PT )

FIG. 1 - FORWARD CHARACTERISTICS

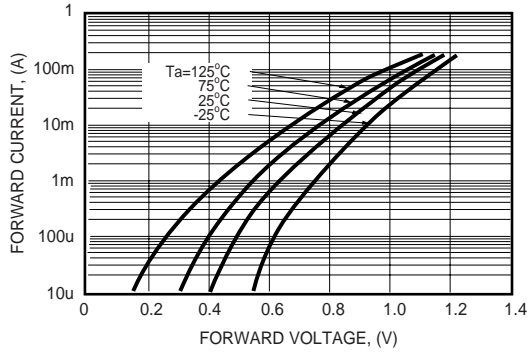


FIG. 2 - REVERSE CHARACTERISTICS

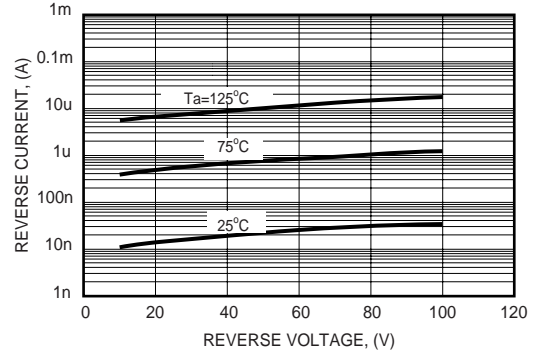


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

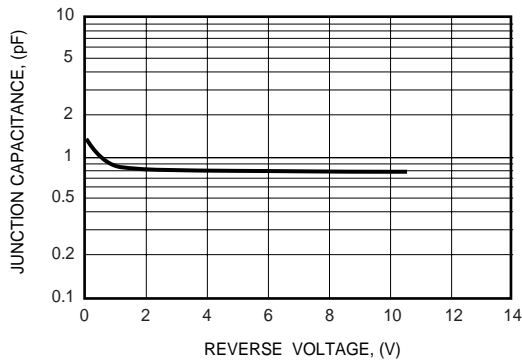


FIG. 4 - REVERSE RECOVERY TIME CHARACTERISTICS

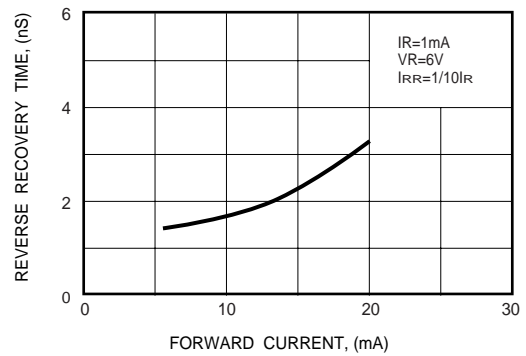


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

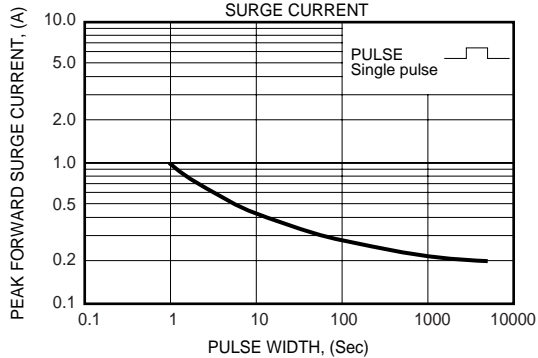


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

