



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SURFACE MOUNT SWITCHING DIODE

VOLTAGE 75 Volts CURRENT 0.15 Ampere

LL4148GP

APPLICATION

- * Ultra high speed switching

FEATURE

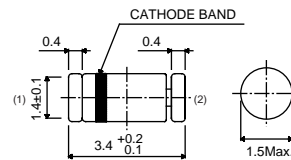
- * Small surface mounting type. (MINI-MELF)
- * High speed. ($T_{RR}=4.0\text{nSec}$ Typ.)
- * Suitable for high packing density.
- * Maximum total power dissipation is 300mW.
- * Peak forward current is 500mA.

CONSTRUCTION

- * Silicon epitaxial planar



Mini-Melf



Dimensions in millimeters

Mini-Melf

CIRCUIT



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

RATINGS	SYMBOL	LL4148GP	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	0.15	Amps
Peak Forward Surge Current at	@1Sec	1.0	Amps
	@1.0uSec	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
Maximum Thermal Resistance	$R_{\theta JA}$	350	$^\circ\text{C/W}$
Maximum Operating and Storage Temperature Range	$T_{J,TSTG}$	-65 to +150	$^\circ\text{C}$

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

CHARACTERISTICS	SYMBOL	LL4148GP	UNITS
Maximum Instantaneous Forward Voltage at $I_f = 10\text{ mA}$	V_F	1.0	Volts
Maximum Average Reverse Current	I_R	$V_R = 20\text{V}$ @ $T_J = 25^\circ\text{C}$	5.0
		$V_R = 75\text{V}$ @ $T_J = 25^\circ\text{C}$	25
		$V_R = 20\text{V}$ @ $T_J = 150^\circ\text{C}$	30
		$V_R = 70\text{V}$ @ $T_J = 150^\circ\text{C}$	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 $R_L = 100\text{ ohms}$.

3. ESD sensitive product handling required.

RATING CHARACTERISTIC CURVES (LL4148GP)

FIG. 1 - FORWARD CHARACTERISTICS

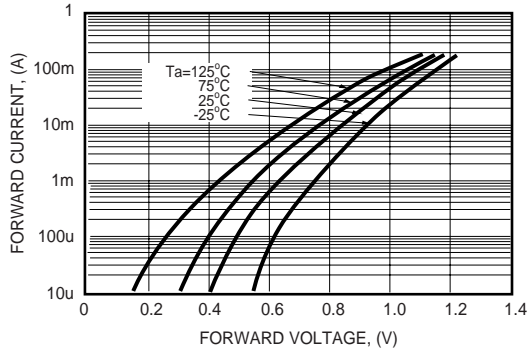


FIG. 2 - REVERSE CHARACTERISTICS

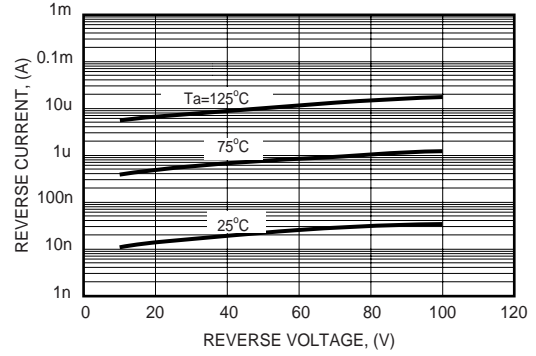


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

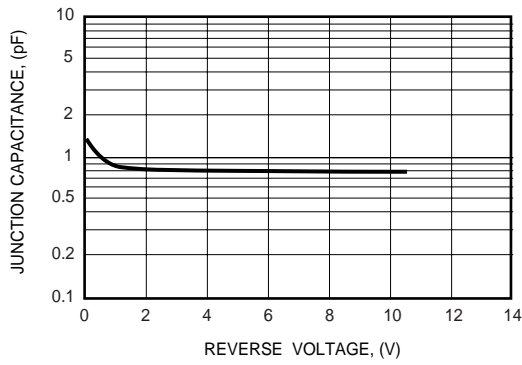


FIG. 4 - REVERSE RECOVERY TIME CHARACTERISTICS

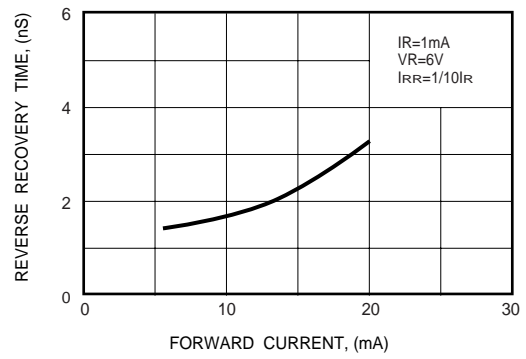


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

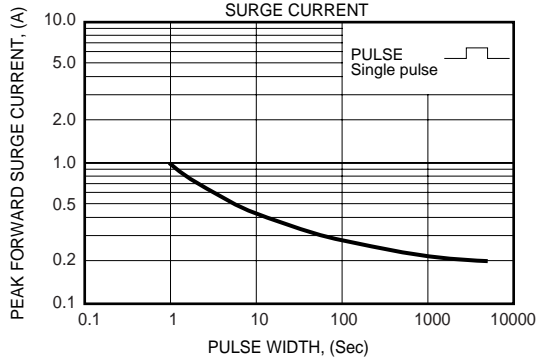


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

