



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SURFACE MOUNT SWITCHING DIODE

VOLTAGE 75 Volts CURRENT 150 mAmpere

LL4448GP

APPLICATION

* Ultra high speed switching

FEATURE

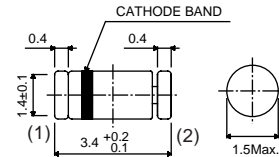
- * Small surface mounting type. (MINI-MELF)
- * High speed. ($T_{RR}=4.0nSec$ Typ.)
- * Suitable for high packing density.
- * Maximum total power dissipation is 300mW.
- * Peak forward current is 500mA.

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	LL4448GP	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 Temperature Range	$T_{J,TSTG}$	-65 to +175	$^\circ C$

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

CHARACTERISTICS	SYMBOL	LL4448GP	UNITS
Maximum Instantaneous Forward Voltage	@ $I_F = 5.0$ mA @ $I_F = 100$ mA	0.72 1.0	Volts
Maximum Average Reverse Current	$V_R = 20V$ @ $T_J = 25^\circ C$ $V_R = 75V$ @ $T_J = 25^\circ C$ $V_R = 20V$ @ $T_J = 150^\circ C$	25nA 5.0 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.

2003-11

RATING CHARACTERISTIC CURVES (LL4448GP)

FIG. 1 - FORWARD CHARACTERISTICS

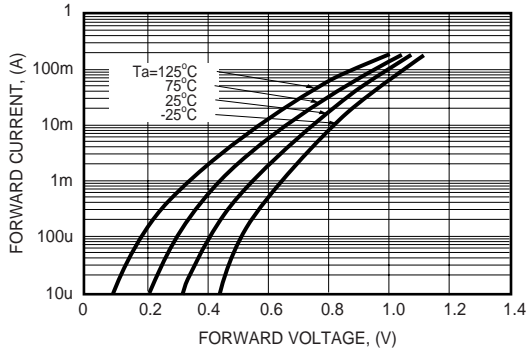


FIG. 2 - REVERSE CHARACTERISTICS

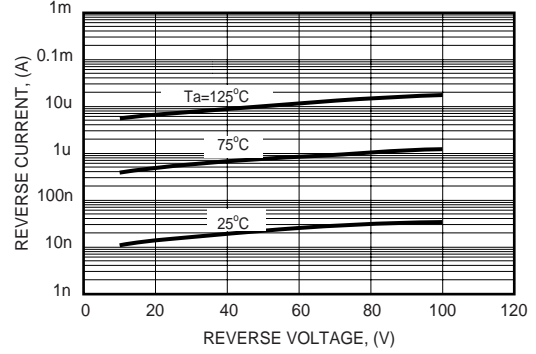


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

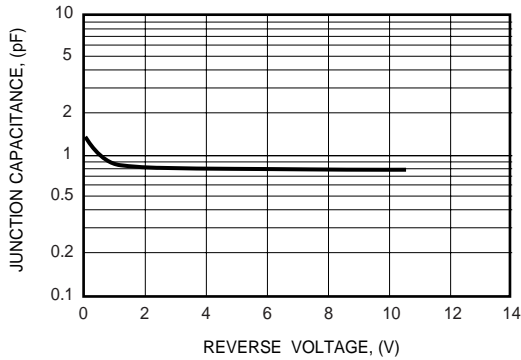


FIG. 4 - REVERSE RECOVERY TIME CHARACTERISTICS

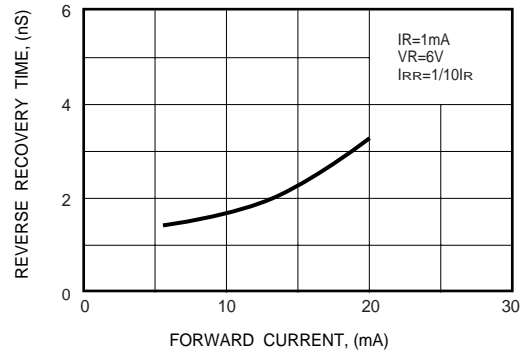


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

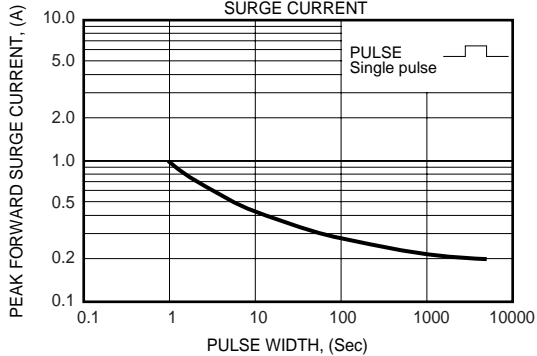


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

