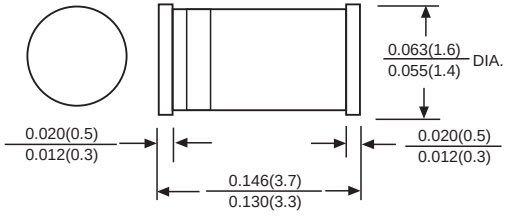
LL4148

SMALL SIGNAL SWITCHING DIODE

MINI MELF



Dimensions in inches and (millimeters)

FEATURES

- Silicon epitaxial planar diode
- Fast switching diodes
- 500mw power dissipation
- High temperature soldering guaranteed 250℃/10S at terminals

MECHANICAL DATA

Case: MINI MELF glass sealed envelope.
Terminals: Solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight:0.002 ounce, 0.05 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

	SYMBOLS	LL4148	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	100	VOLTS
Maximum RMS voltage	V_{RMS}	75	VOLTS
Maximum average forward rectified current 0.375"(9.5mm) lead length at T_A=75℃	$I_{(AV)}$	150	mAmps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	500	mAmps
Maximum instantaneous forward voltage at 10mA	V_F	1.0	Volts
Maximum DC reverse current T_A=25℃ V_R=75V at rated DC blocking voltage T_A=100℃ V_R=20V	I_R	5.0 50	μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	4.0	ns
Typical junction capacitance (NOTE 2)	C_J	4.0	pF
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +200	°C

NOTES:

1.Test condition:I_F=10mA,I_R=10mA,I_{rr}=1mA,V_R=6V,R_L=100Ω.

2.Measured at 1.0 MHz and applied reverse voltage of 4.0 volts

RATINGS AND CHARACTERISTIC CURVES LL4148

FIG. 1-ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

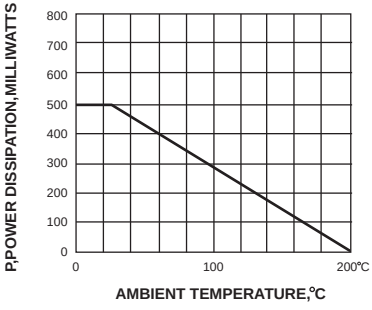


FIG. 2-REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE (TYPICAL VALUES)

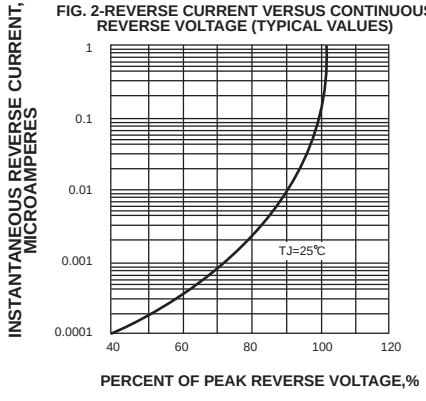


FIG. 3-FORWARD CHARACTERISTICS

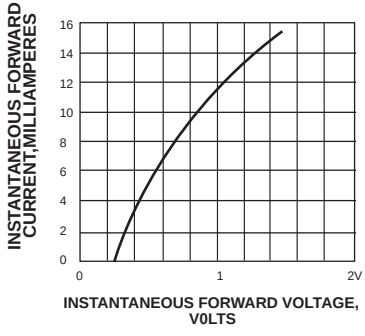


FIG. 4-RELATIVE CAPACTANCE VERSUS REVERSE VOLTAGE

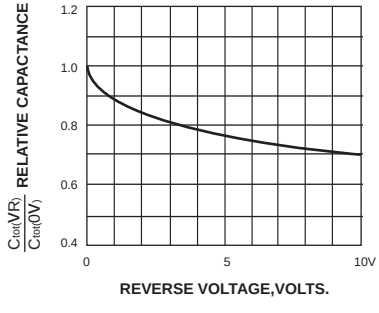
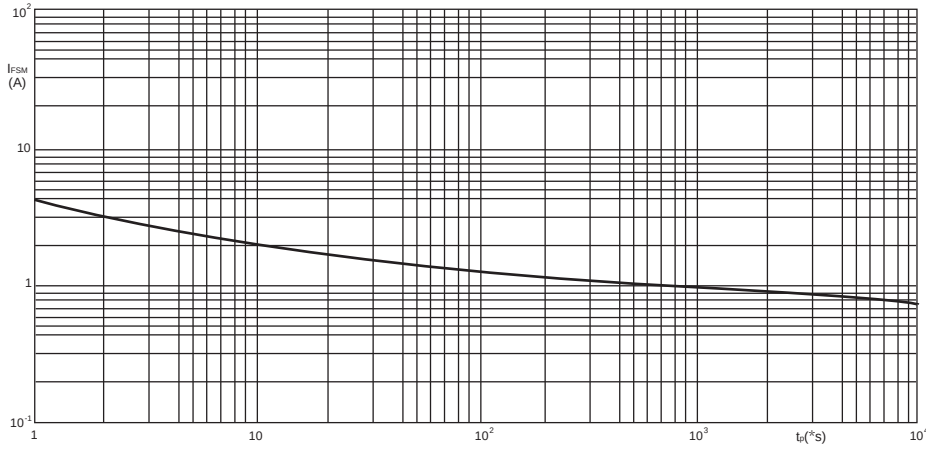


FIG. 5-MAXIMUM PERMISSIBLE NON-REPETITIVE PEAK FORWARD CURRENT AS A FUNCTION OF PULSE DURATION



Based on square wave currents. T_j=25* prior to surge.