



LL4148

Switching Diode

REVERSE VOLTAGE 75 Volts
FORWARD CURRENT 0.15 Amperes

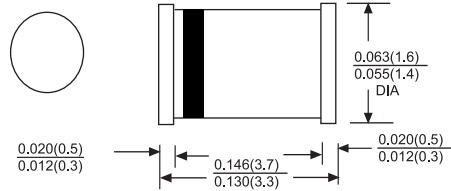
Features

- Silicon epitaxial planar diode
- High speed switching diode
- 500mW power dissipation

Mechanical Data

- Cases: Min-MELF glass case
- Polarity: Color band denotes cathode
- Weight: Approx. 0.05 grams

MINI MELF(LL-34)



Inch(mm)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

Type Number		LL4148	Units
DC Block Voltage	V_R	75	V
Non-Peak Reverse Voltage	V_{RM}	100	V
Average Forward Rectified Current Half Wave Rectification with Resist load	I_o	150	mA
Forward Surge Current at $t < 1s$ and $T_j < 25^\circ C$	I_{FSM}	500	mA
Power Classification at T_j	P_{tot}	500 ⁽¹⁾	mW
Junction Temperature	T_j	175	°C
Storage Temperature Range	T_{STG}	-65 to +175	°C

NOTE: (1) Valid provided that

Electrical Characteristics

		Min	Typ	Max	Units
Forward Voltage at $I_F = 10mA$	V_F	—	—	1	
Leakage Current at $V_R = 20V$ at $V_R = 75V$ at $V_R = 20V, T_j = 150^\circ C$	I_R	—	—	25	nA
	I_R	—	—	5	uA
	I_R	—	—	50	uA
Capacitance at $V_F = V_R = 0V$	C_j	—	—	4	pF
Voltage Rise when Switching ON loaded with 50mA pulse $t_p = 0.1\mu s$ Rise Time $< 30ns$ $I_p = 5$ to 100Hz	V_{tt}	—	—	2.5	V
Reverse Recovery Time from $I_F = 10mA$ $V_R = V, R_L = 100\Omega$ at $I_R = 1mA$	t_{rr}	—	—	4	ns
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	—	—	350	K/W
Rectification Efficiency at 100MHz, $V_{er} < 2V$	η_V	0.45	—	—	—

NOTE: (1) Valid provided that electrodes are kept at ambient temperature.



FIG.4-RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

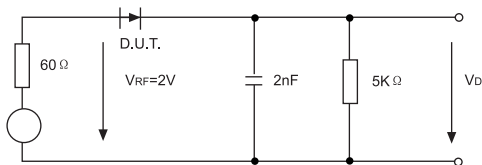


FIG.5- RELATIVE CAPACITANCE VERSUS VOLTAGE

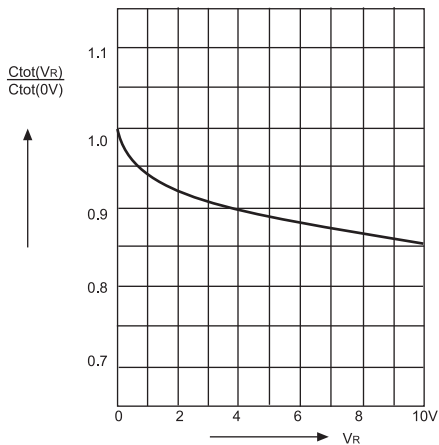


FIG.6-LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

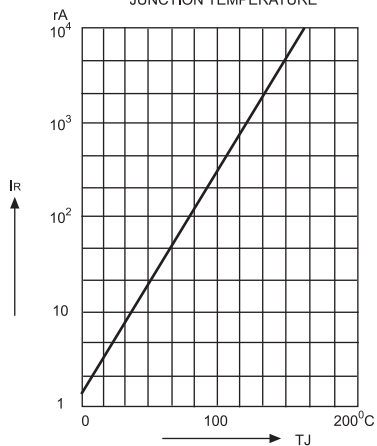


FIG.7-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

