

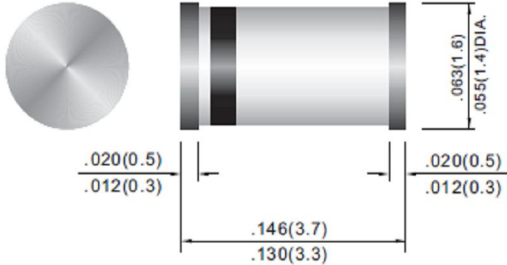


LL4148

Silicon Epitaxial Planar Diode

Voltage 100 volts Power 500mwatts

Mini-MELF/LL-34



Dimensions in inches and (millimeters)

FEATURES

- ◆ Fast switching speed
- ◆ Surface mount package ideally suited for automatic insertion.
- ◆ Silicon epitaxial planar construction
- ◆ In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

Case: Mini Melf, Glass

Terminals: Solderable per MIL-STD-750, method 2026

Polarity: Cathode Band

Marking: Cathode Band only

Weight: 0.03 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOLS	1N4148WS	UNITS
Peak Reverse Voltage	V_{RM}	100	Volts
Maximum average forward current at $T_a=25^\circ\text{C}$ and $f>=50\text{Hz}$	I_{AV}	150	mAmps
Surge forward current at $t<1\text{s}$ and $T_j=25^\circ\text{C}$	I_{FSM}	500	mAmps
Power Dissipation Derate Above 25°C	P_{TOT}	500	mWatts
Maximum Forward Voltage at $I_F=10\text{mA}$	V_F	1.0	Volts
Maximum Leakage Current at $V_R=20\text{V}$ at $V_R=75\text{V}$ at $V_R=20\text{V}, T_j=150^\circ\text{C}$	I_R	2.5 5 50	nA uA uA
Maximum Capacitance at $V_F=V_R=0$	C_J	4.0	pF
Maximum Reverse Recovery Time from $I_F=-I_R=10\text{mA}$ to $I_{RR}=-1\text{mA}, V_R=6\text{V}, R_L=100\Omega$	t_{rr}	4.0	ns
Maximum Thermal Resistance	$R_{\theta JA}$	300	°C/W
Junction Temperature and Storage Temperature Range	T_J, T_S	-65 to +175	°C

NOTES:

1. C_J at $V_R=0, f=1\text{MHz}$

2. From $I_F=10\text{mA}$ to $I_R=1\text{mA}, V_R=6\text{ volts}, R_L=100\Omega$

RATINGS AND CHARACTERISTIC CURVES

Fig.1 Admissible Repetitive Peak Forward Current Versus Pulse Duration

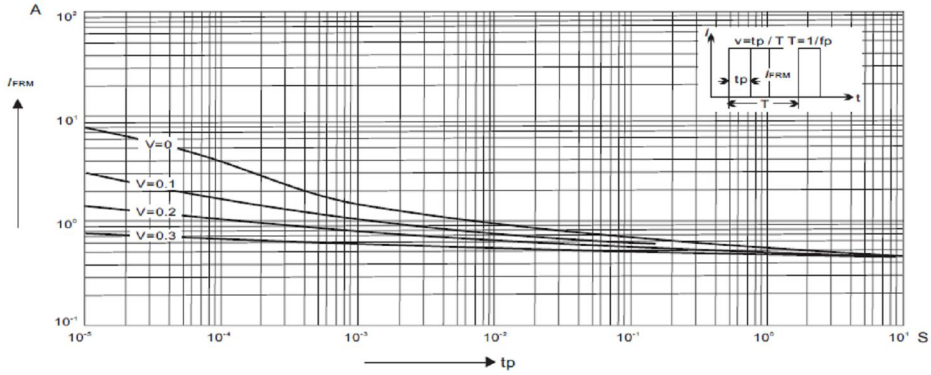


Fig.2 Dynamic Forward Resistance Versus Forward Current

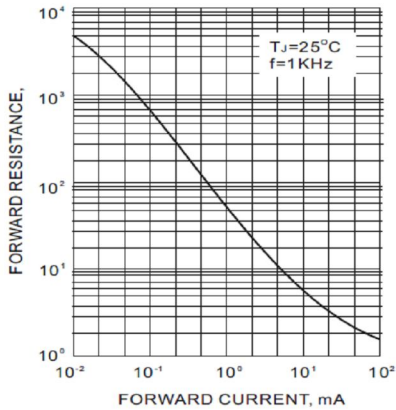


Fig.3 Forward Characteristic

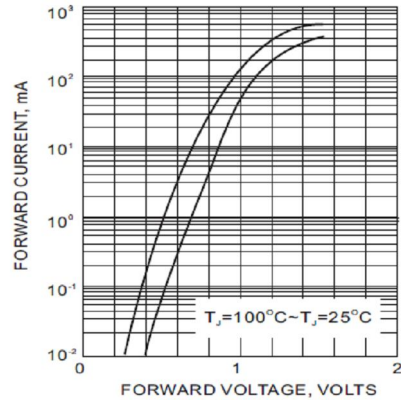


Fig.4 Derating Curve

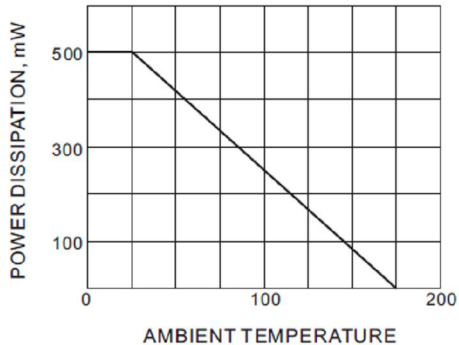


Fig.5 Typical Junction Capacitance

