LL4148

Small Signal Diodes

MiniMELF

Cathode Mark | Color | Color

Dimensions in inches and (millimeters)

FEATURES

- ♦ Silicon Epitaxial Planar Diodes
- Fast switching diode in MiniMELF case especially suited for automatic insertion.



◆ This diode is also available in other case styles including: the DO-35 case with the type designation 1N4148, the SOD-123 case with the type designation 1N4148W, and the SOT-23 case with the type designation IMBD4148.

MECHANICAL DATA

Case: MiniMELF Glass Case (SOD-80)

Weight: approx. 0.05 g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Value	Unit	
Reverse Voltage	V _R	75	V	
Peak Reverse Voltage	V _{RM}	100	V	
Forward DC current at T _{amb} = 25 °C	IF	2001)	mA	
Rectified Current (Average) Half Wave Rectification with Resist. Load at T_{amb} = 25 °C and f \geq 50 Hz	I ₀	150 ¹⁾	mA	
Surge Forward Current at t < 1 s and T _j = 25 °C	I _{FSM}	500	mA	
Power Dissipation at T _{amb} = 25 °C	P _{tot}	500 ¹⁾	mW	
Junction Temperature	Tj	175	°C	
Storage Temperature Range	T _S	-65 to +175	°C	

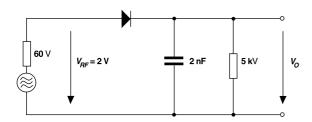


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ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

Symbol	Min.	Тур.	Max.	Unit
V _F	_	-	1	V
I _R I _R	- - -	- - -	25 5 50	nA μA μA
C _{tot}	_	-	4	pF
V _{fr}	_	-	2.5	V
t _{rr}	_	-	4	ns
R _{thJA}	_	-	0.351)	K/mW
η_{v}	0.45	_	-	_
	V _F I _R I _R I _R V _{fr} Ctot V _{fr}	V _F - I _R - I _R - I _R - I _R - I _R - I _R - R _{thJA} -	V _F	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

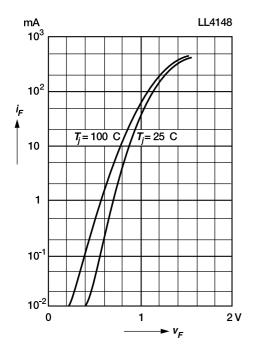


Rectification Efficiency Measurement Circuit



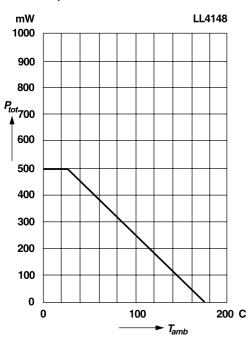
RATINGS AND CHARACTERISTIC CURVES LL4148

Forward characteristics

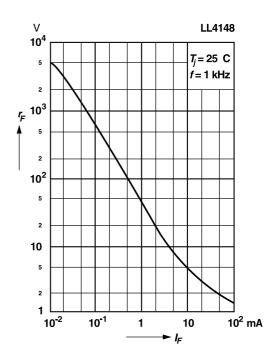


Admissible power dissipation versus ambient temperature

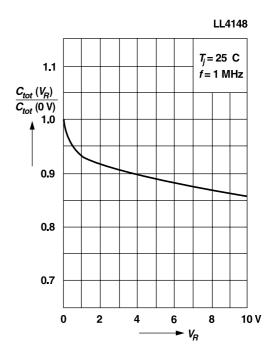
Valid provided that electrodes are kept at ambient temperature



Dynamic forward resistance versus forward current



Relative capacitance versus reverse voltage





RATINGS AND CHARACTERISTIC CURVES LL4148

Leakage current versus junction temperature

