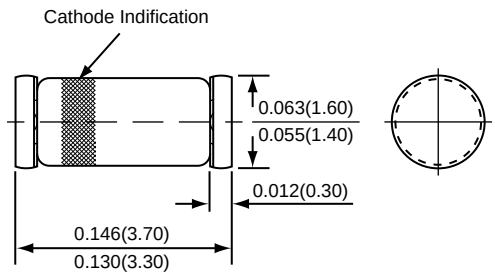
LL4148, LL4448

SILICON EPITAXIAL PLANAR DIODES

Reverse Voltage 100 Volts Peak Forward Current - 500mA

SOD-80



Glass case
Mini MELF / SOD 80
JEDEC DO 213AA

technical drawings
accarding to DIN
specifications

*Dimensions in inches and (millimeters)

FEATURES

* Electrical data identical with the devices 1N4148
* and 1N4448 respectively
* Extreme fast switches

MECHANICAL DATA

Case : Mini MELF SOD-80 Glass Case
Weight : approx. 0.05 gram

ABSOLUTE MAXIMUM RATINGS (T_J=25°C)

PARAMETER	Test Conditions	SYMBOL	VALUE	UNIT
Repetitive Peak Reverse Voltage		V_{RRM}	100	V
Reverse Voltage		V_R	75	V
Peak Forward Surge Current	tp = 1 us	I_{FSM}	2	A
Repetitive Peak Forward Current		I_{FRM}	500	mA
Forward Current		I_F	300	mA
Average Forward Current	V_R = 0	I_{FAV}	150	mA
Power Dissipation		P_V	500	mW
Junction Temperature		T_J	175	°C
Storage Temperature Range		T_{STG}	-65 to +175	°C

MAXIMUM THERMAL RESISTANCE (T_J=25°C)

PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	UNIT
Junction Ambient	on PC Board 50mm x 50mm x 1.6mm	$R_{\theta JA}$	500	K / W

MAXIMUM THERMAL RESISTANCE (T_J=25°C)

PARAMETER	TEST CONDITIONS	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward Voltage	(I_F = 5 mA) (Type : LL4448) (I_F = 50 mA) (Type : LL4148) (I_F = 100 mA) (Type : LL4448)	V_F	0.62 - -	- 0.86 0.93	0.72 1.0 1.0	Volts
Reverse Current	(V_R = 20 V) (V_R = 20 V, T_J=150°C) (V_R = 75 V)	I_R	- - -	- - -	25 50 5.0	nAdc uAdc
Breakdown Voltage	(I_R = 100 uA, tp/T = 0.01, tp = 0.3 ms)	$V_{(BR)}$	100	-	-	Volts
Diode Capacitance	(V_R = 0, f=1.0MHz, V_{HF} = 50mV)	C_D	-	-	4	pF
Rectification Efficiency	(V_{HF} = 2 V, f = 100MH_Z)	ηr	45	-	-	%
Reverse Recovery Time	(I_F = I_R = 10mA, I_R = 1mA) (I_F = 10mA, V_R = 6 V, I_R = 0.1 X I_R, R_L = 100Ω)	t_{rr}	- -	- -	8 4	nS

RATINGS AND CHARACTERISTIC CURVES LL4148, LL4448

FIG.1 - FORWARD CURRENT VS. FORWARD VOLTAGE

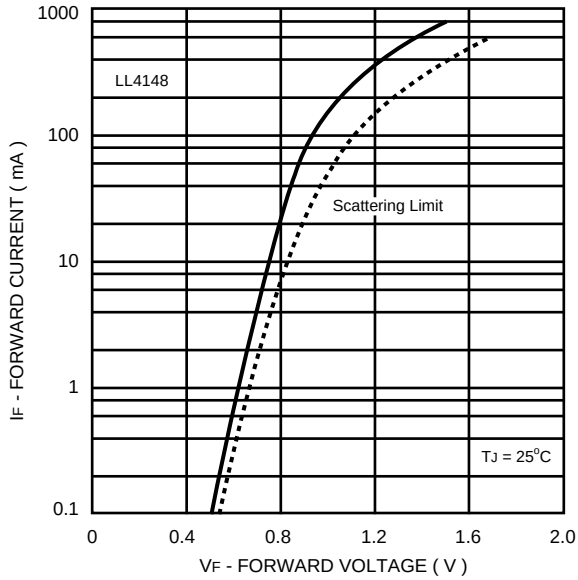


FIG.2 - FORWARD CURRENT VS. FORWARD VOLTAGE

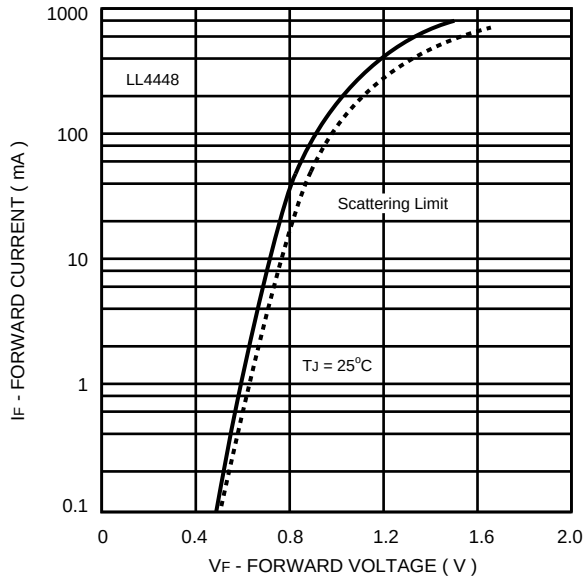


FIG.3 - REVERSSE CURRENT VS. REVERSE VOLTAGE

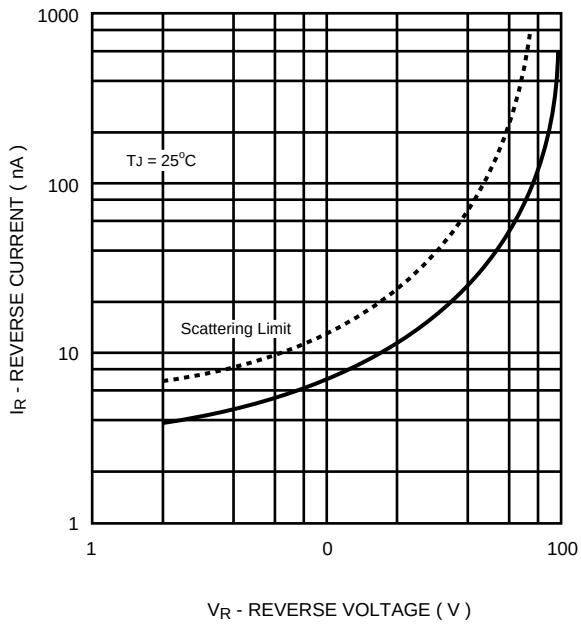


FIG.4 - DIODE CAPACITANCE VS. REVERSE VOLTAGE