



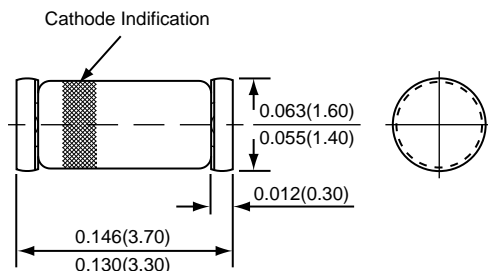
LL4148, LL4448

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
according 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 _{θJA}	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)	V _F	0.62	-	0.72	Volts
	(I _F = 50 mA) (Type : LL4148)		-	0.86	1.0	
	(I _F = 100 mA) (Type : LL4448)		-	0.93	1.0	
Reverse Current	(V _R = 20 V)	I _R	-	-	25	nAdc
	(V _R = 20 V, T _J =150°C)		-	-	50	uAdc
	(V _R = 75 V)		-	-	5.0	
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 = 100MHz)	η _r	45	-	-	%
Reverse Recovery Time	(I _F = I _R = 10mA, I _R = 1mA)	t _{rr}	-	-	8	nS
	(I _F = 10mA, V _R = 6 V, I _R = 0.1 X I _R , R _L = 100Ω)		-	-	4	

RATINGS AND CHARACTERISTIC CURVES LL4148, LL4448

FIG.1 - FORWARD CURRENT VS. FORWARD VOLTAGE

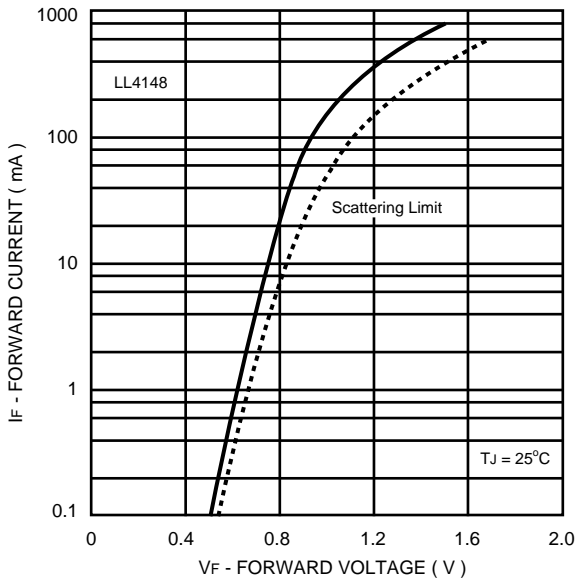


FIG.2 - FORWARD CURRENT VS. FORWARD VOLTAGE

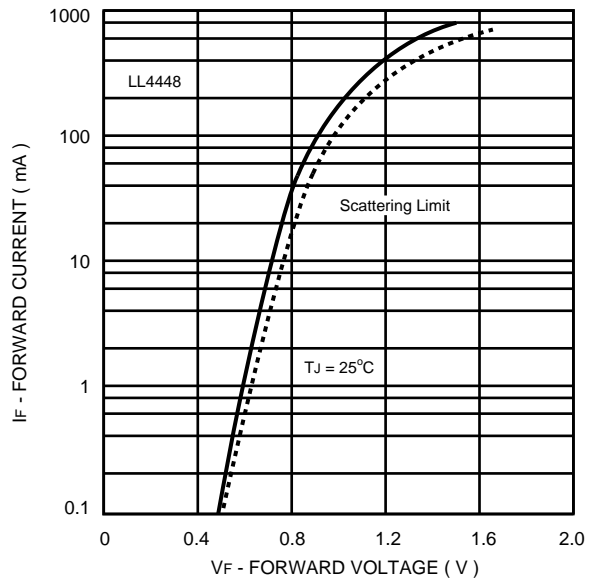


FIG.3 - REVERSE CURRENT VS. REVERSE VOLTAGE

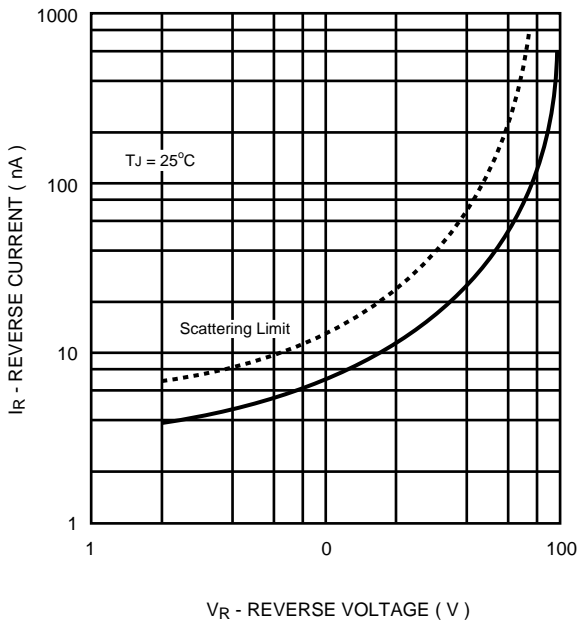


FIG.4 - DIODE CAPACITANCE VS. REVERSE VOLTAGE

