



Features:

- Silicon Epitaxial Diode
- High Speed Switching Diode
- 500mW Power Dissipation

Mechanical Data:

- Case: MINI-MELF glass case
- Polarity: Colour band denotes cathode
- Weight: Approx. 0.031g

Maximum Ratings and Electrical Characteristics:

Ratings at 25°C ambient temperature unless otherwise specified

Characteristics	Symbol	LL4148-13	Units
Reverse voltage	V_R	75	V
Peak reverse voltage	V_{RM}	100	V
Average forward rectified current Half wave rectification with resistive load at $t_a=25^\circ\text{C}$ and $f \geq 50\text{Hz}$	I_o	150	mA
Forward surge current at $t < 1\text{S}$ and $T_J=25^\circ\text{C}$ (Note 1)	I_{FSM}	500	mA
Power dissipation at $T_A=25^\circ\text{C}$	P_{tot}	500	mW
Junction temperature	T_J	175	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +175	$^\circ\text{C}$

Note:

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

Electrical Characteristics:

Characteristics		Min.	Typ.	Max.	Units
Forward voltage at $I_F=10\text{mA}$	V_F	-	-	1	V
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	-	-	25 5 50	nA μA μA
Capacitance at $V_F=V_R=0\text{V}$	C_{tot}	-	-	4	pF
Voltage rise when switching on tested with 50mA pulses $t_p=0.1\mu\text{s}$, rise time $<30\text{ns}$, $f_p=5$ to 100kHz	V_{fr}	-	-	2.5	V
Reverse recovery time from $I_F=10\text{mA}$ $V_R=6\text{V}$, $R_L=100\Omega$, at $I_R=1\text{mA}$	t_{rr}	-	-	4	ns
Thermal resistance junction to ambient (Note1)	$R_{\theta JA}$			350	K/W
Rectification efficiency at 100MHz , $V_{RF}=2\text{V}$	η_V	0.45	-	-	-

Note

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

Fig. 1- Admissible Power Dissipation Versus Ambient Temperature

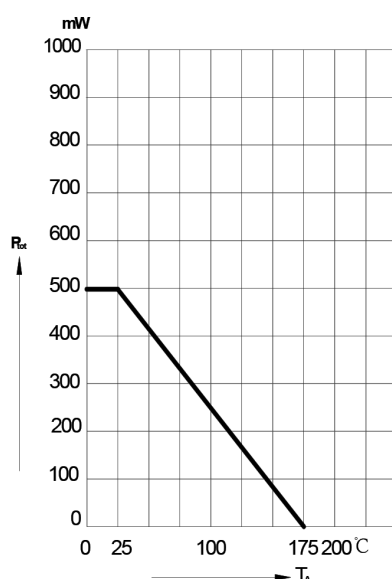
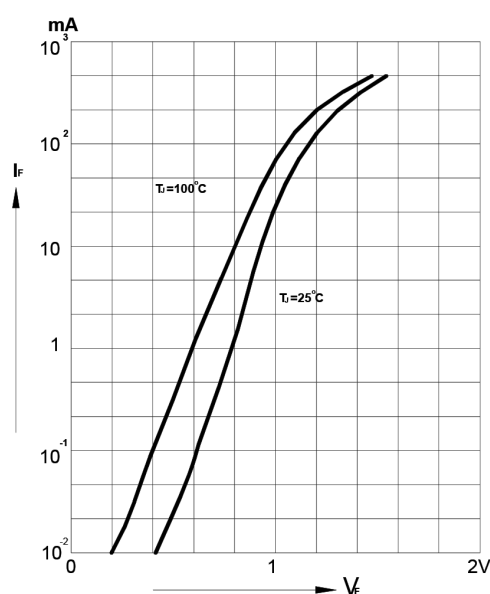
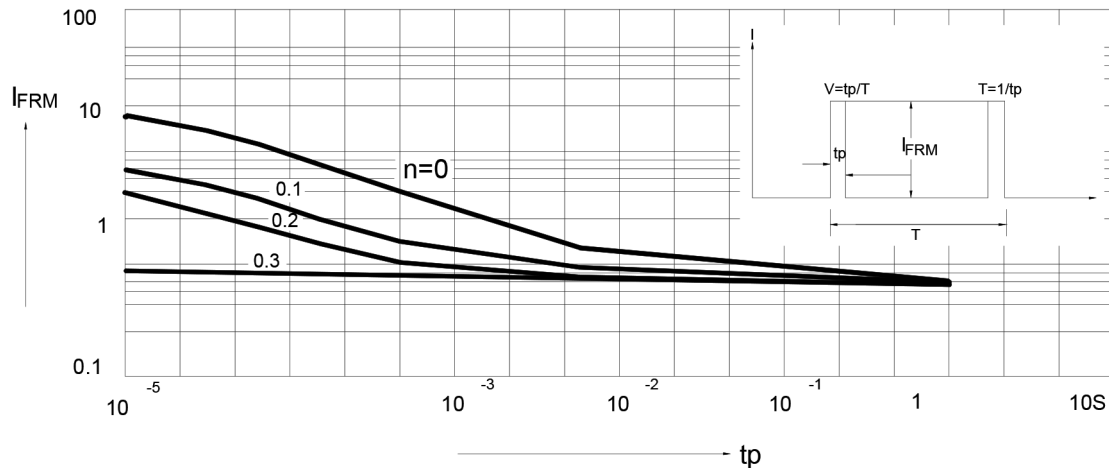


Fig. 2- Forward Characteristics

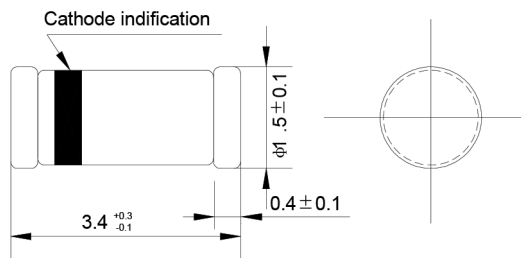


Small Signal Switching Diode **multicomp**PRO

Fig. 3 -Admissible Repetitive Peak Forward Current Versus Pulse Duration



Dimensions:



Dimensions : Millimetres

Part Number Table

Description	Part Number
Small Signal Switching Diode	LL4148-13

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