



Silicon Epitaxial Planar Switching Diode

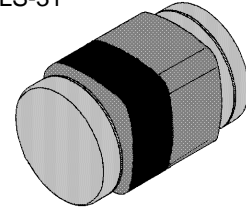
Features

- Saving space
- Hermetic sealed parts
- Fits onto SOD 323 / SOT 23 footprints
- Electrical data identical with the device 1N4148

Applications

Extreme fast switches

LS-31



Glass Case MicroMELF

Absolute Maximum Ratings (T<sub>a</sub> = 25 °C)

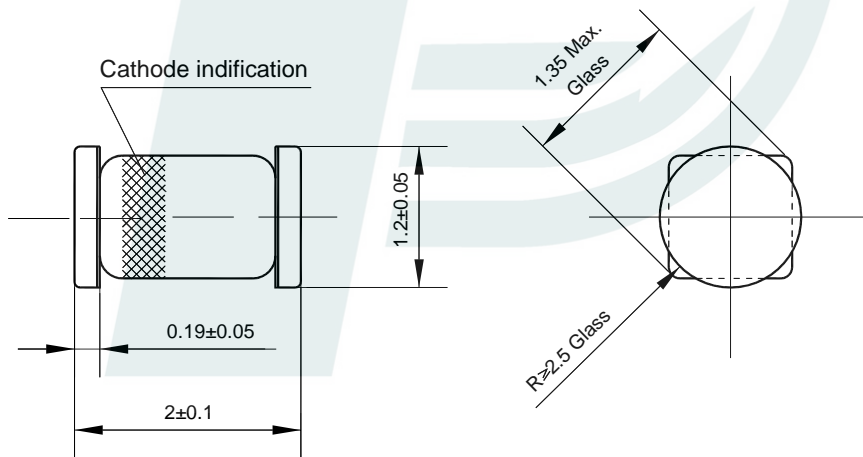
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V <sub>RM</sub>	100	V
Reverse Voltage	V <sub>R</sub>	75	V
Average Rectified Forward Current	I <sub>F(AV)</sub>	200	mA
Repetitive Peak Forward Current	I <sub>FRM</sub>	450	mA
Non-repetitive Peak Forward Surge Current	I <sub>FSM</sub>	0.5	A
		at t = 1 s	
		at t = 1 ms	
		4	
	at t = 1 μs		
Power Dissipation	P <sub>tot</sub>	500 <sup>1)</sup>	mW
Junction Temperature	T <sub>j</sub>	175	°C
Storage Temperature Range	T <sub>stg</sub>	- 65 to + 175	°C

<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature.

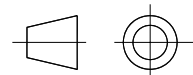


Characteristics at  $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 50\text{ mA}$	$V_F$	-	1	V
Leakage Current at $V_R = 20\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 20\text{ V}, T_j = 150\text{ }^\circ\text{C}$	$I_R$ $I_R$ $I_R$	- - -	25 5 50	nA $\mu\text{A}$ $\mu\text{A}$
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	100	-	V
Capacitance at $V_R = 0, f = 1\text{ MHz}$	$C_{tot}$	-	4	pF
Voltage Rise when Switching ON tested with 50 mA Forward Pulses $t_p = 0.1\text{ s}$ , Rise Time < 30 ns, $f_p = 5\text{ to }100\text{ KHz}$	$V_{fr}$	-	2.5	V
Reverse Recovery Time at $I_F = 10\text{ mA}$ to $I_R = 1\text{ mA}$ , $V_R = 6\text{ V}$ , $R_L = 100\text{ }\Omega$	$t_{rr}$	-	4	ns
Rectification Efficiency at $f = 100\text{ MHz}$ , $V_{RF} = 2\text{ V}$	$\eta_V$	0.45	-	-



Glass case MicroMELF  
Dimensions in mm



technical drawings  
according to DIN  
specifications

