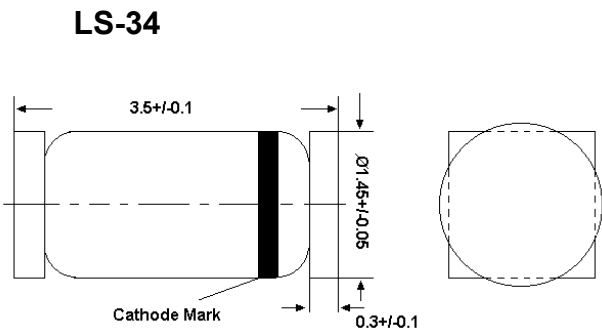


LS4148

SILICON EPITAXIAL PLANAR DIODE

fast switching diode in MiniMELF case especially suited for automatic surface mounting.
Identical electrically to standard JEDEC 1N4148

These diodes are delivered taped.
Details see "Taping".

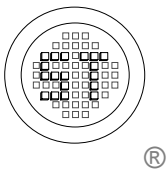


Glass case MiniMELF

Dimensions in mm

Absolute Maximum Ratings (T_a = 25°C)

	Symbol	Value	Unit
Reverse Voltage	V _R	75	V
Peak Reverse Voltage	V _{RM}	100	V
Rectified Current (Average) Half Wave Rectification with Resist. Load at T _{amb} = 25°C and f ≥ 50 Hz	I _O	150 ¹⁾	mA
Surge Forward Current at t<1s and T _j = 25°C	I _{FSM}	500	mA
Power Dissipation	P _{tot}	500 ¹⁾	mW
Junction Temperature	T _j	175	°C
Storage Temperature Range	T _S	-65 to +175	°C
¹⁾ Valid provided that electrodes are kept at ambient temperature.			



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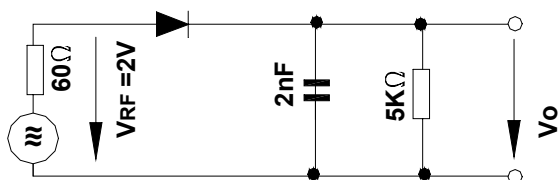
Dated : 17/04/2003

LS4148

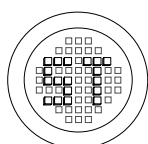
Characteristics at $T_j = 25^\circ\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
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 I_R I_R	- - -	- - -	25 5 50	nA μA μA
Reverse Breakdown Voltage tested with $100\mu\text{A}$ Pulses	$V_{(BR)R}$	100	-	-	V
Capacitance at $V_F = V_R = 0$	C_{tot}	-	-	4	pF
Voltage Rise when Switching ON tested with 50 mA Forward Pulses $t_p = 0.1\text{ s}$, Rise Time $< 30\text{ns}$, $f_p = 5$ to 100 kHz	V_{fr}	-	-	2.5	V
Reverse Recovery Time from $I_F = 10\text{mA}$ to $I_R = 1\text{mA}$, $V_R = 6\text{V}$, $R_L = 100\Omega$	t_{rr}	-	-	4	ns
Thermal Resistance Junction to Ambient Air	R_{thA}	-	-	$0.35^{(1)}$	K/mW
Rectification Efficiency at $f = 100\text{MHz}$, $V_{RF} = 2\text{V}$	η_v	0.45	-	-	-

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



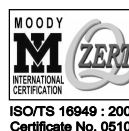
Rectification Efficiency Measurement Circuit



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Dated : 17/04/2003