

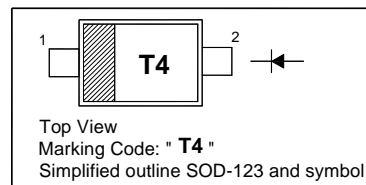
## Silicon Epitaxial Planar Switching Diode

### Features

- SOD-123 package
- Fast switching
- These diodes are also available in other case style including the DO-35 case with the type designation 1N4148, the MiniMELF case with the type designation LL4148 and the MicroMELF case with the type designation MCL4148.

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	$V_{RM}$	100	V
Reverse Voltage	$V_R$	75	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM}$	at $t = 1$ s 0.5	A
		at $t = 1$ ms 1	
		at $t = 1$ $\mu$ s 4	
Power Dissipation	$P_{tot}$	400	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	312	$^\circ\text{C/W}$
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage	$V_F$	-	at $I_F = 1$ mA 0.715	V
at $I_F = 10$ mA			0.855	
at $I_F = 50$ mA			1	
at $I_F = 150$ mA			1.25	
Peak Reverse Current	$I_R$	-	at $V_R = 75$ V 1	$\mu$ A
at $V_R = 20$ V			25	nA
at $V_R = 75$ V, $T_J = 150^\circ\text{C}$			50	$\mu$ A
at $V_R = 25$ V, $T_J = 150^\circ\text{C}$			30	$\mu$ A
Total Capacitance	$C_T$	-	2	pF
Reverse Recovery Time	$t_{rr}$	-	4	ns
at $I_{rr} = 0.1 \times I_R$ , $I_F = I_R = 10$ mA, $R_L = 100 \Omega$				



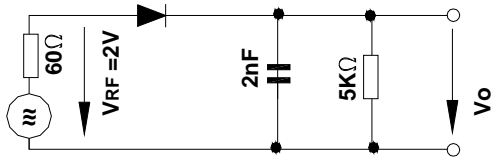
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# SOD-123

# 1N4148W

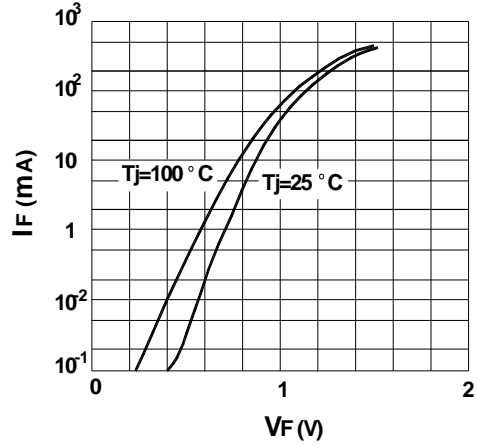


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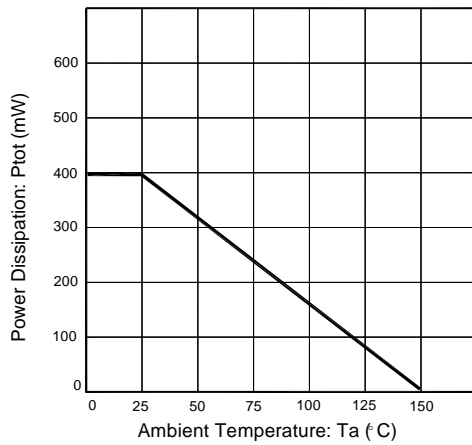


Rectification Efficiency Measurement Circuit

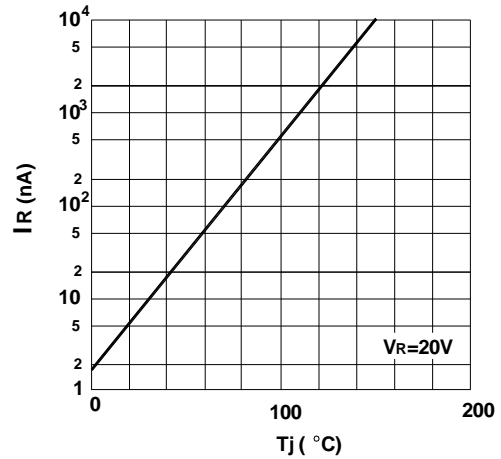
Forward characteristics



Power Dissipation vs Ambient Temperature



Leakage current vs. junction temperature



Reverse capacitance vs. reverse voltage

