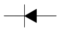
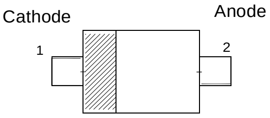
1N4148W Silicon Epitaxial Planar Switching Diode





SOD-123

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.

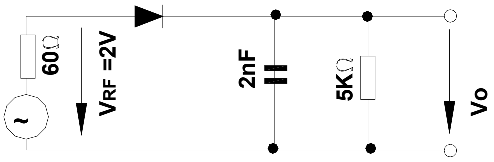
Marking Code : T4

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	100	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Non-repetitive Peak Forward Surge Current at t = 1 µs	I_{FSM}	2	A
Power Dissipation	P_{tot}	400	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	312	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

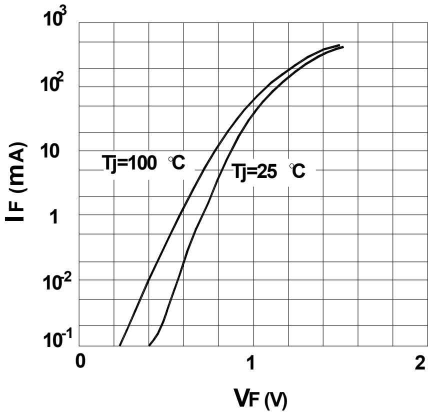
Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 1 µA	$V_{(BR)R}$	100	-	V
Forward Voltage at I_F = 10 mA at I_F = 50 mA at I_F = 150 mA	V_F	- - -	0.855 1 1.25	V
Peak Reverse Current at V_R = 75 V at V_R = 20 V at V_R = 75 V, T_J = 150 °C at V_R = 25 V, T_J = 150 °C	I_R	- - - -	1 100 50 30	µA nA µA µA
Total Capacitance at V_R = 0 V, f = 1 MHz	C_T	-	8	pF
Reverse Recovery Time at I_{rr} = 0.1 X I_R, I_F = I_R = 10 mA, R_L = 100 Ω	t_{rr}	-	4	ns

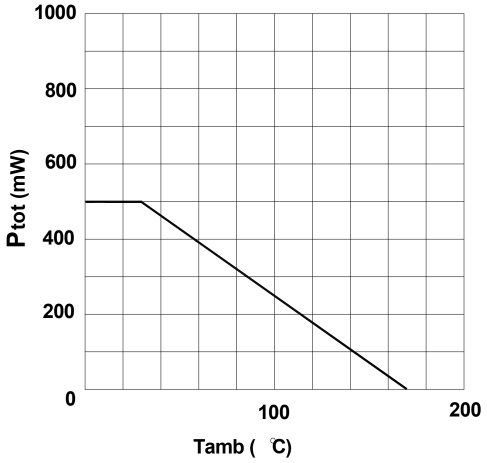


Rectification Efficiency Measurement Circuit

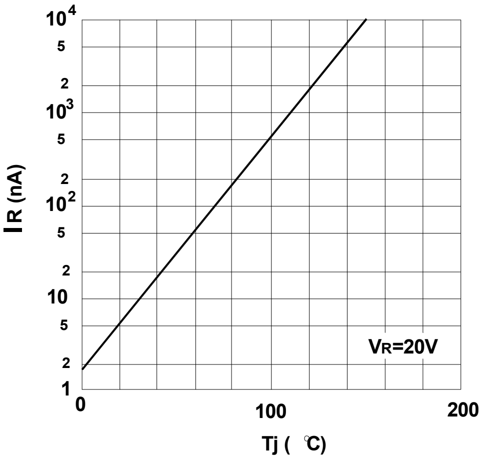
Forward characteristics



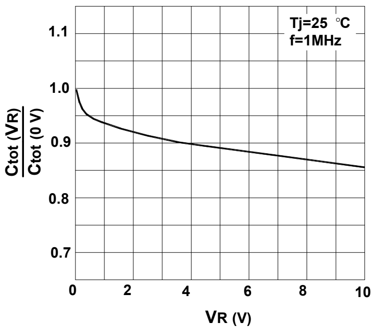
Amissible power dissipation
vs. ambient temperature



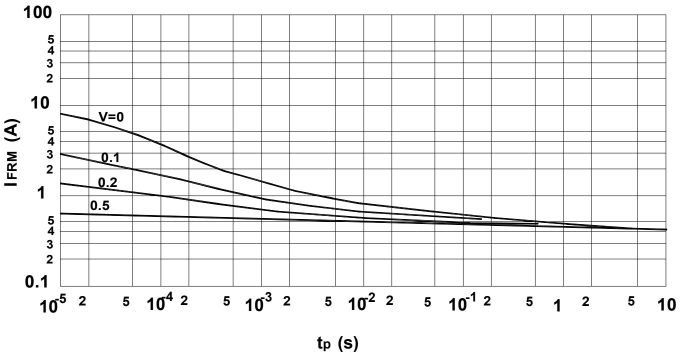
Leakage current vs. junction temperature



Reverse capacitance vs. reverse voltage

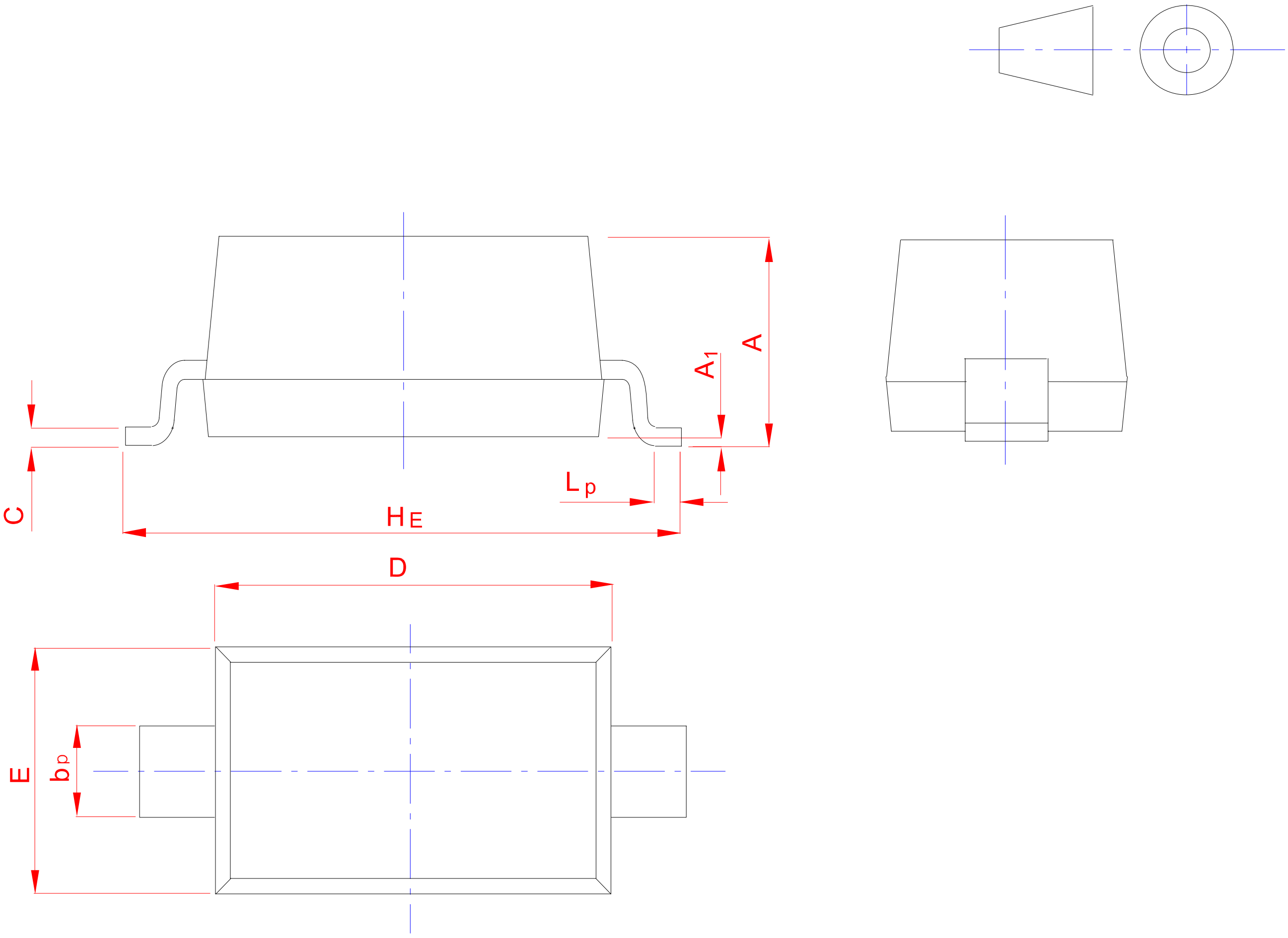


Amissible repetitive peak forward current vs. pulse duration



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-123**



UNIT	A	b_p	C	D	E	H_E	A_1	L_p
mm	1.20 0.90	0.60 0.50	0.135 0.100	2.75 2.55	1.65 1.55	3.85 3.55	0.10 0.01	0.50 0.20