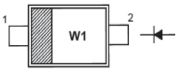
Small Signal Diode

multicomp PRO



Marking "W1"

1	Cathode
2	Anode

Description

These diodes are also available in other case styles including the DO-35 case with the type designation IN4148, the MiniMELF case with the type designation LL4148 and the MicroMELF case with the type designation MCL4148.

Features

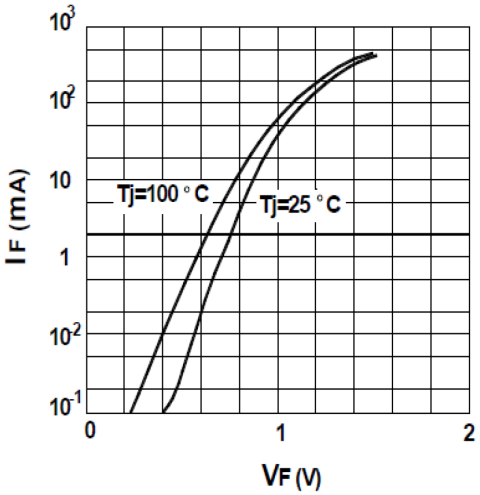
- SOD 123 package
- Fast switching
- Reverse voltage: 100 Volts
- Forward current: 150mA

Absolute Maximum Ratings (T_A = 25°C)

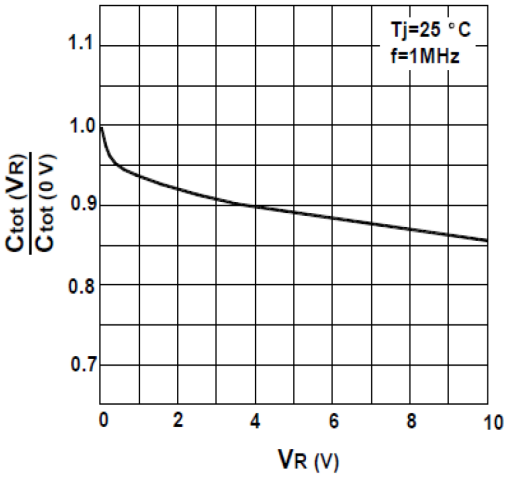
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	
Reverse Breakdown Voltage @I_R=1µA	$V_{(BR)R}$	75	
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Non-repetitive Peak Forward Surge Current @t=1s @t=1ms @t=1µs	I_{FSM}	0.5 1 4	A
Power Dissipation	P_{tot}	400	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	312	°C/W
Junction Temperature	T_J	-55 to +150	°C
Storage Temperature	T_{STG}	-55 to +150	
Max. Forward Voltage @ I_F = 1mA @ I_F = 10mA @ I_F = 50 mA @ I_F = 150 mA	V_F	0.715 0.855 1 1.25	V
Max. Peak Reverse Current @V_R = 75V @V_R = 20V @V_R = 75V, T_J = 150°C @V_R = 25V, T_J = 150°C	I_R	1 25 50 30	µA nA µA µA
Total Capacitance @V_R = 0V, f = 1 MHz	C_T	2	pF
Reverse Recovery Time @Irr = 0.1 X IR, IF = IR = 10mA, RL = 100Ω	trr	4	ns

Rating and Characteristic Curves

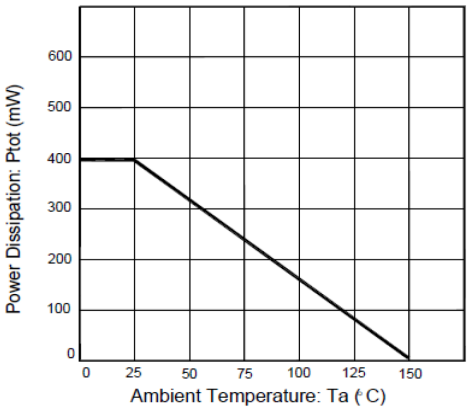
Forward characteristics



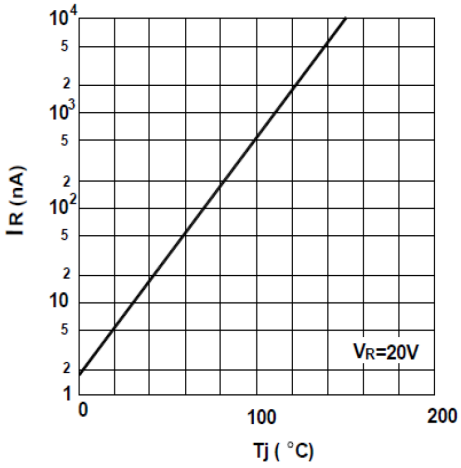
Reverse capacitance vs. reverse voltage



Power Dissipation vs Ambient Temperature



Leakage current vs. junction temperature



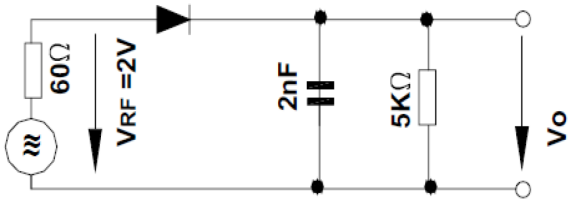


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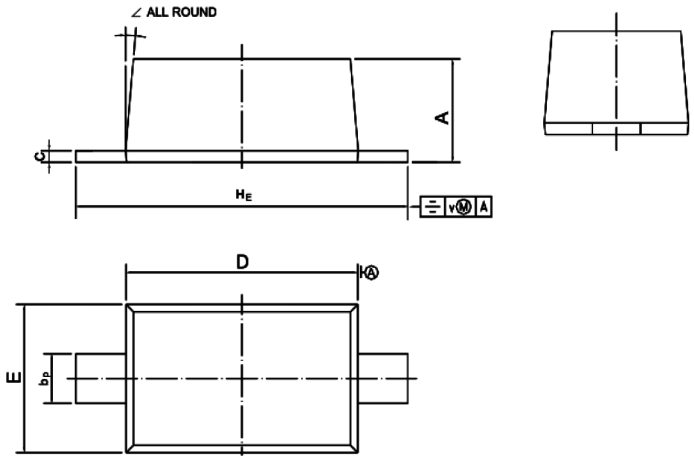
Diagram

SOD-123



Unit	A	bp	C	D	E	HE	v	∠
mm	1.15 1.05	0.6 0.5	0.135 0.127	2.7 2.6	1.65 1.55	3.85 3.55	0.2	5°

Part Number Table

Description	Part Number
Small Signal Diode, Single, 100V, 150mA, 1V, 4ns, 2A	1N4148W

Dimensions : Millimetres