

Features

- Small Surface Mount Package
- High Breakdown Voltage
- Fast Speed Switching



SOD-123

Applications

- High Speed Switching and Reverse Polarity Protection
- High Speed Rectifying Applications
- Consumer, Automotive and Telecommunication Industry

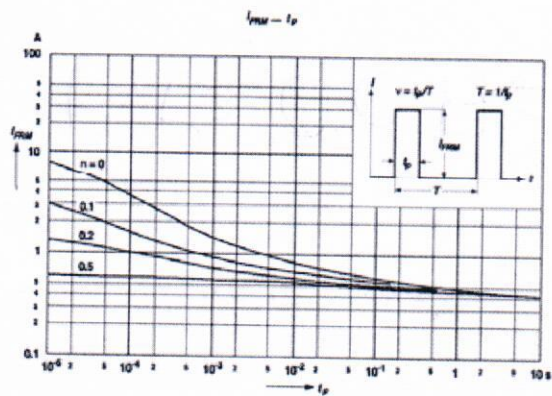
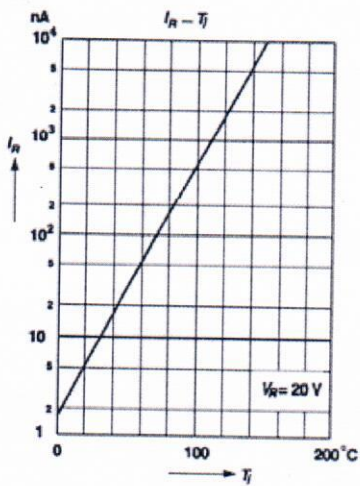
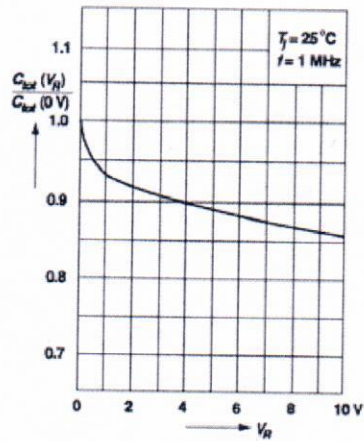
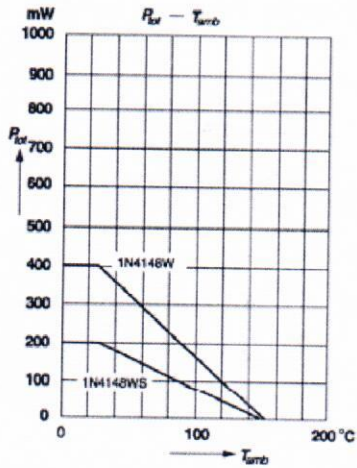
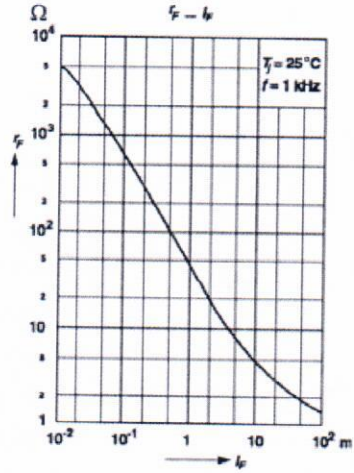
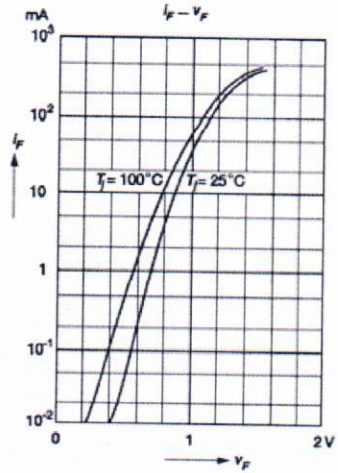
Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Rating	UNIT
Peak Repetitive Reverse Voltage	V_R	75	V
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Average Rectified Output Current	I_o	150	mA
Forward Continuous Current	I_{FM}	300	mA
Non-Repetitive Peak Forward Surge Current	$I_{FSM}(t=1.0\mu s)$	2.0	A
	$I_{FSM}(t=1.0s)$	1.0	
Power Dissipation	P_{TOT}	400	mW
Thermal Resistance Junction to Ambient	R_{thja}	650	$^{\circ}\text{C}/\text{W}$
Operating Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ 150	$^{\circ}\text{C}$

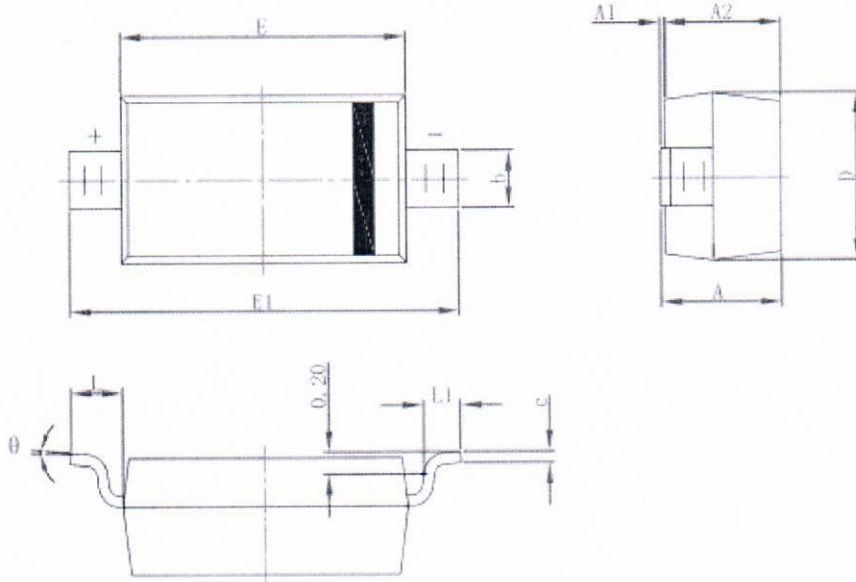
Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition.	Min.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)/R}$	$I_R=1.0\mu\text{A}$	75		V
Forward Voltage	V_F	$I_F=10\text{mA}$		1.0	V
Reverse Current	I_R	$V_R=75\text{V}$		5.0	μA
		$V_R=20\text{V}$		25	nA
		$V_R=20\text{V}, T_J=150^{\circ}\text{C}$		50	μA
Capacitance between terminals	C_T	$V_R=0, f=1.0\text{MHz}$		4.0	pF
Reverse Recovery Time	T_{RR}	$I_F=10\text{mA}, V_R=6.0\text{V}, I_R=1\text{mA}, R_L=100\Omega$		4.0	ns

Typical Electrical Characteristic Curves



Package Outline Dimensions SOD-123 (in mm)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF.		0.020 REF.	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

Marking and Ordering Information

Device	Package	Carrier	Quantity	Marking
1N4148W	SOD-123	Tape & Reel	3,000pcs / Reel	A2