

400mW SOD- 123 SURFACE MOUNT Small Outline Flat Lead Plastic Package Fast Switching Diode

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

Symbol	Parameter	Value	Units
P_D	Power Dissipation	400	mW
T_{STG}	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	+150	$^\circ\text{C}$
V_{RSM}	Non-Repetitive Peak Reverse Voltage	100	V
V_{RRM}	Repetitive Peak Reverse Voltage	75	V
I_{FRM}	Repetitive Peak Forward Current	300	mA
I_O	Continuous Forward Current	150	mA
I_{FSM}	Peak Forward Surge Current (Pulse Width=1us)	2	A

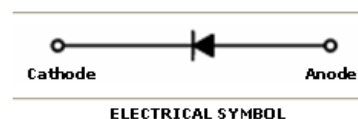
These ratings are limiting values above which the serviceability of the diode may be impaired.



SOD-123 Flat Lead

Specification Features:

- Fast Switching Device ($T_{RR} < 4.0 \text{ nS}$)
- General Purpose Diodes
- Flat Lead SOD-123 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode



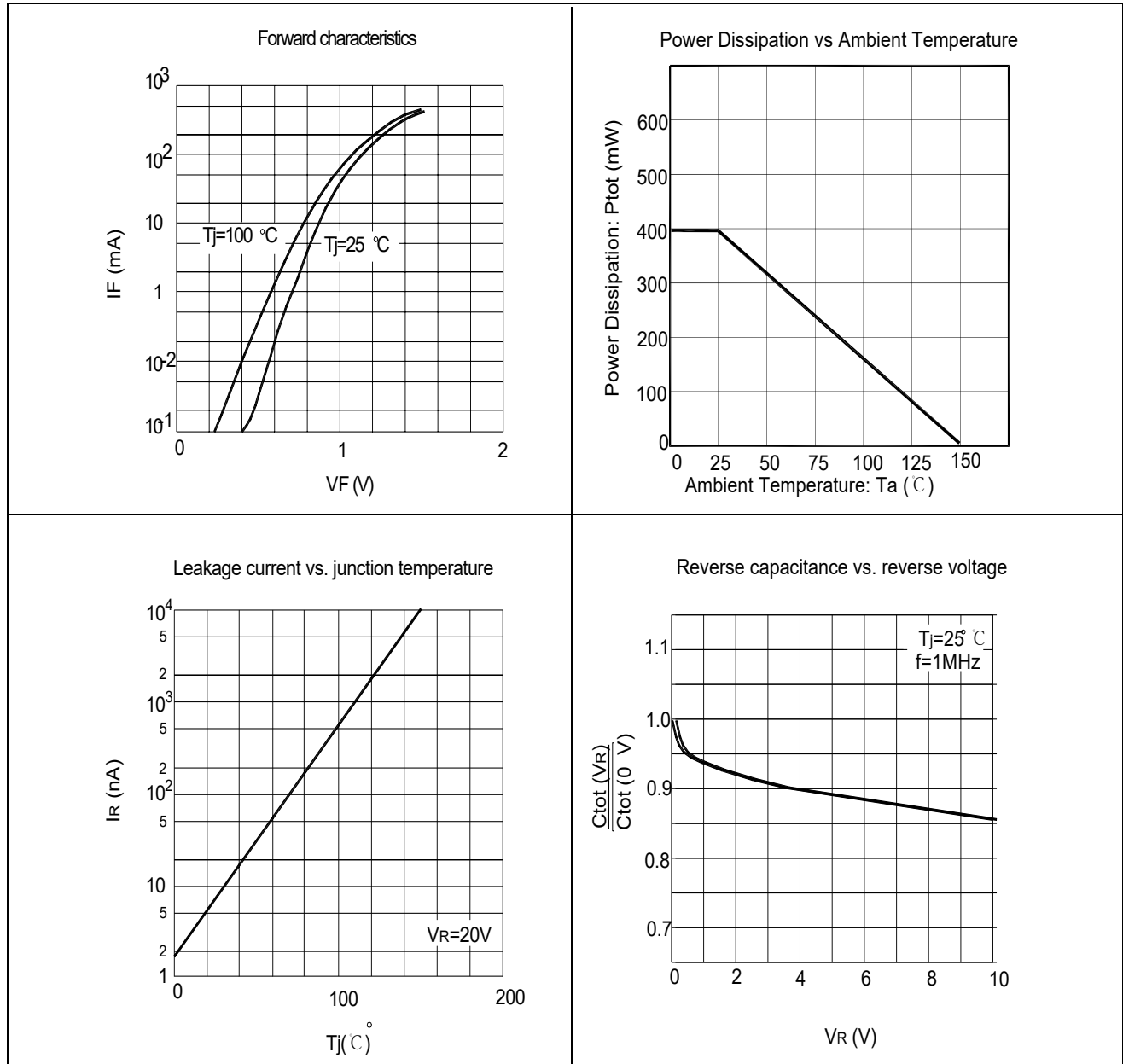
DEVICE MARKING CODE:

Device Type	Device Marking
1N4148W	D1
1N4448W	D2
1N914BW	D3

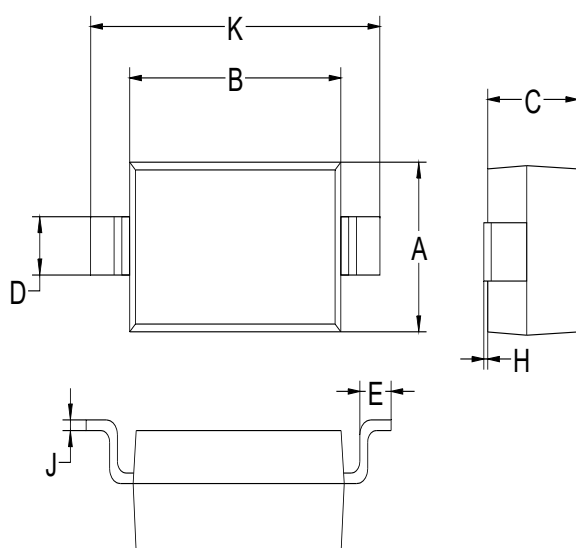
Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
B_V	Breakdown Voltage	$I_R = 100 \mu\text{A}$ $I_R = 5 \mu\text{A}$	100 75		Volts
I_R	Reverse Leakage Current	$V_R = 20\text{V}$ $V_R = 75\text{V}$		25 5	nA μA
V_F	Forward Voltage	1N4448W, 1N914BW $I_F = 5\text{mA}$ 1N4148W $I_F = 10\text{mA}$ 1N4448W, 1N914BW $I_F = 100\text{mA}$	0.62	0.72 1.0 1.0	Volts
T_{RR}	Reverse Recovery Time	$I_F = 10\text{mA}$ $I_R = 60\text{mA}$ $R_L = 100\Omega$ $I_{RR} = 1\text{mA}$		4	nS
C	Capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$		4	pF

Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



SOD-123 Package Outline



Dim	Min	Max
A	1.45	1.75
B	2.55	2.85
C	1.15 Typical	
D	0.55 Typical	
E	0.25	0.45
H	0.02	0.10
J	0.1 Typical	
K	3.55	3.90
All Dimensions in mm		

NOTES:

1. The above package outline is similar to JEITA SC-90.
2. Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.