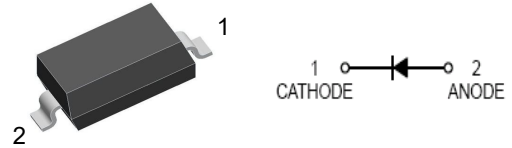


Fast Switching Diode in SOD-123

Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance
- Meet MSL level 2



Mechanical Data

- **Case:** SOD-123 (plastic package).
Lead free; RoHS compliant; Halogen free
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals

Applications

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

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

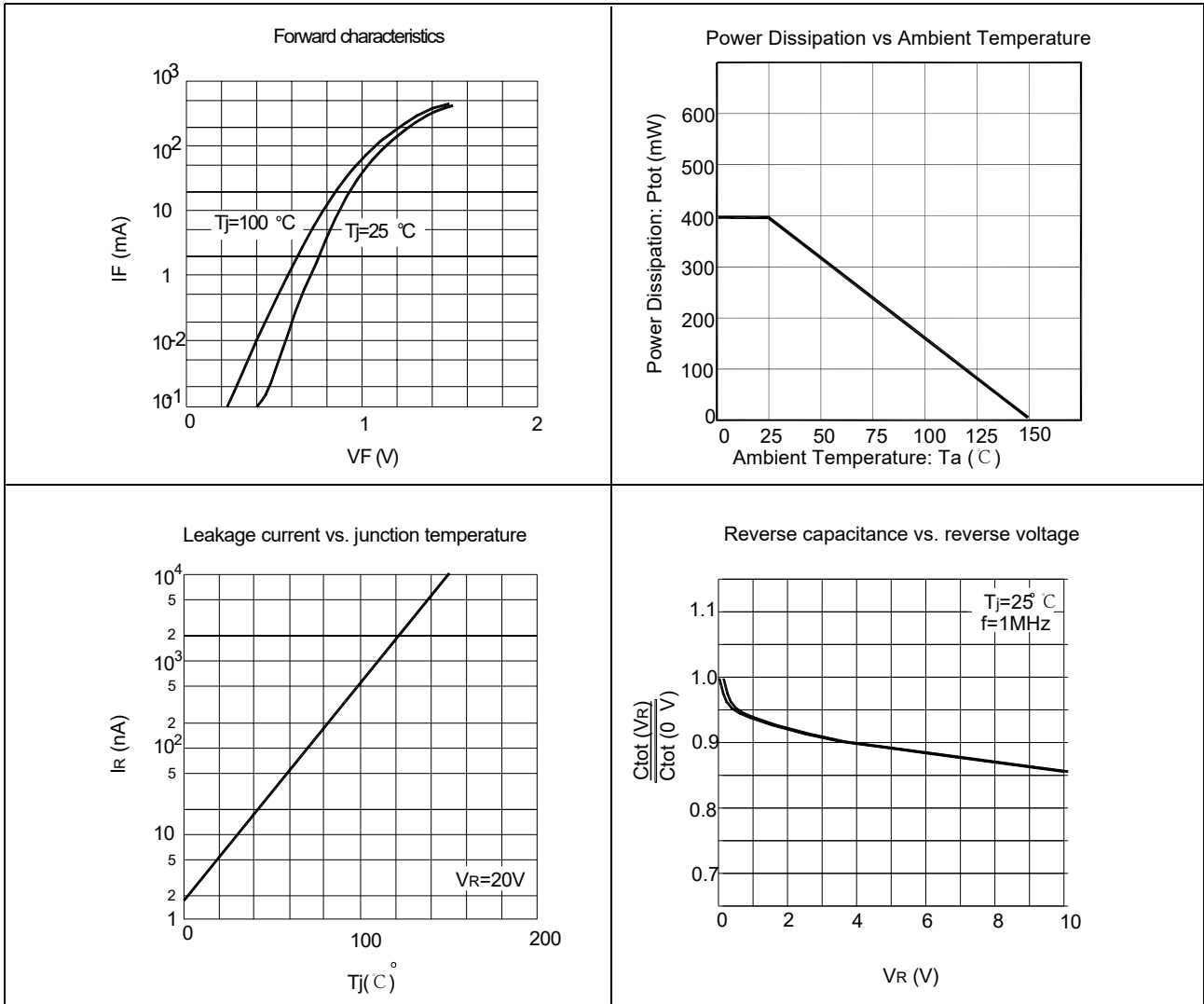
Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage DC	V_{RWM}		
Reverse Voltage	V_R		
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_o	150	mA
Non-Repetitive Peak Forward Surge Current @t=1.0 μs	I_{FSM}	2.0	A
@t=1.0 s		1.0	
Power Dissipation	P_D	400	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	280	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

Electrical Characteristics

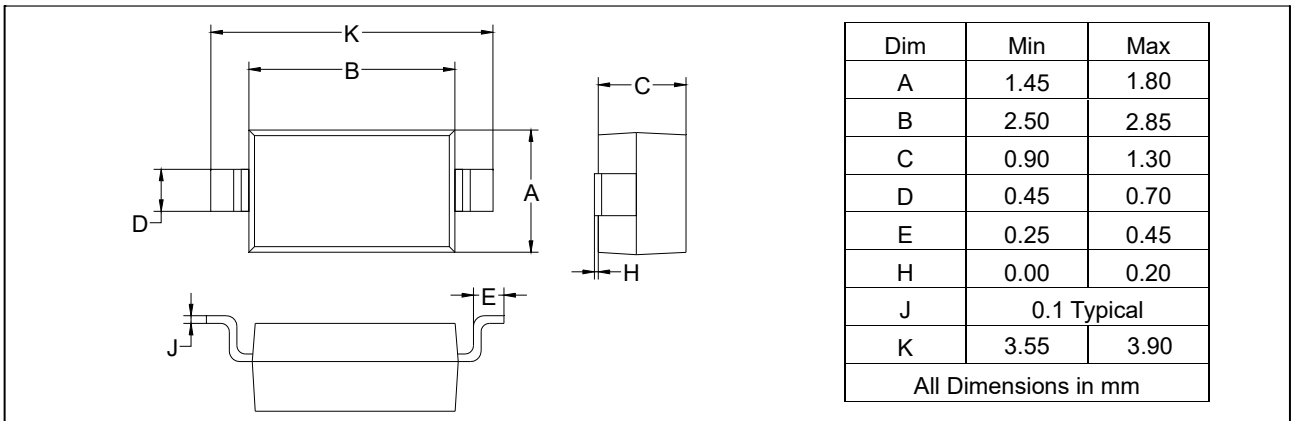
($T_A = 25\text{ °C}$ unless otherwise specified)

Parameter	Symbol	Min	Max	Unit	Test Conditions
Reverse Breakdown Voltage	$V_{(BR)R}$	75	-	V	$I_R=1.0\mu A$
Forward Voltage	V_F	-	0.715 0.855 1.0 1.25	V	$I_F=1mA$ $I_F=10mA$ $I_F=50mA$ $I_F=150mA$
Reverse Current	I_R	-	5.0 25	μA nA	$V_R=75V$ $V_R=20V$
Junction Capacitance	C_J	-	4.0	pF	$V_R=0, f=1.0MHz$
Reverse Recovery Time	t_{rr}	-	4.0	ns	$I_F=I_R=10mA,$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$

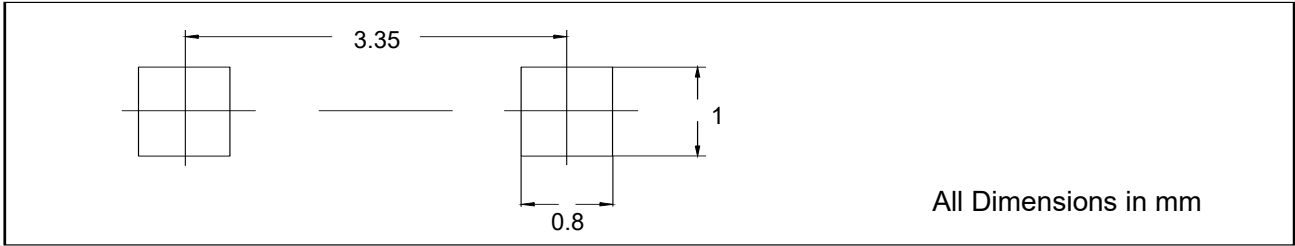
Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



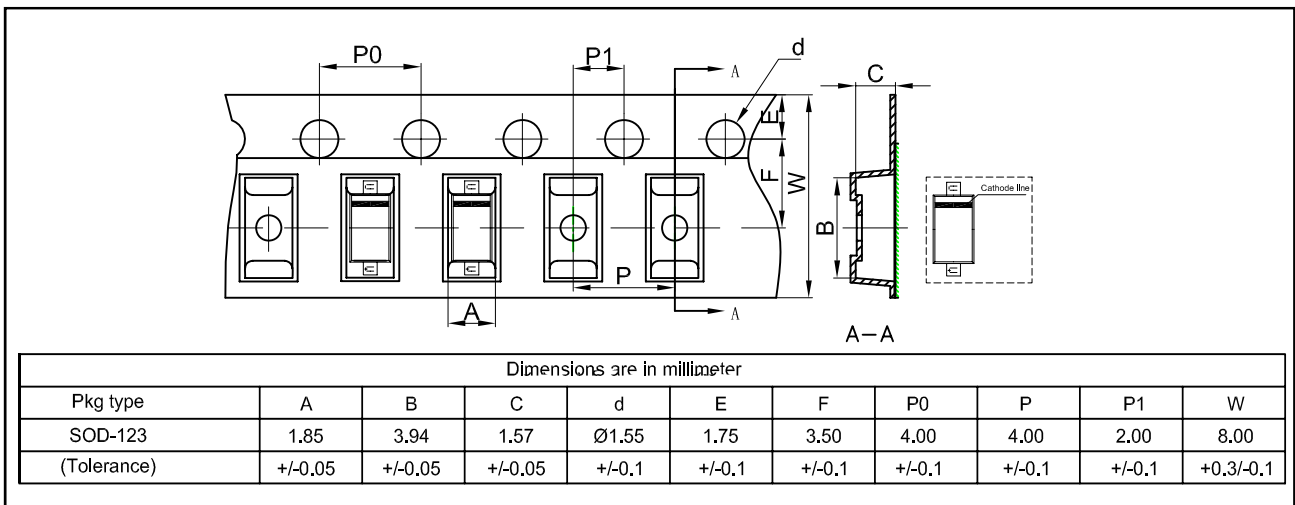
Package Dimensions



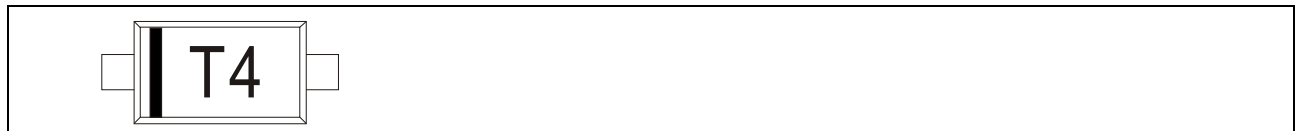
PAD Dimension



Package Information



Marking



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
1N4148W	SOD-123	Tape and reel	3000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
9-Oct-2025	5.3	Update R0JA

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