



1N4448W

Reverse Voltage 100 Volts Forward Current – 0.25 Ampere

1. Description

FAST SWITCHING DIODES

2. Features

- Small Package
- Low Reverse Current
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion

3. Application

- High frequency rectifier
- Signal switching

4. Mechanical Data


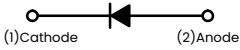
- Case : JEDEC SOD-123 molded plastic body
- Terminals : Plated leads solderable per MILSTD-750, Method 2026
- Polarity : Polarity symbols marked on case
- Marking: T5

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

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}		
Working Peak Reverse Voltage	V_{RWM}	75	V
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	I_{FM}	500	mA
Forward Continuous Current	I_O	250	mA
Non-Repetitive Peak Forward Surge Current @ $t=1s$	I_{FSM}	2.0	A
Power Dissipation	P_d	500	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	250	$^{\circ}\text{C}/\text{W}$
Operation Junction and Storage Temperature Range	T_J T_{stg}	-55~+150	$^{\circ}\text{C}$

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6. Pinning information

Pin	Symbol	Description	Simplified outline	Equivalent Circuit	Marking	Package
1	-	Cathode			T5	SOD-123
2	+	Anode				

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

Parameter	Symbols	Condition	Min	Typ	Max	Unit
Forward voltage	V_{F1}	$I_F=5\text{mA}$	0.62	—	0.72	V
	V_{F2}	$I_F=10\text{mA}$	—	—	0.855	V
	V_{F3}	$I_F=100\text{mA}$	—	—	1.0	V
	V_{F4}	$I_F=150\text{mA}$	—	—	1.25	V
Reverse current	I_{R1}	$V_R=75\text{V}$	—	—	2.5	μA
	I_{R2}	$V_R=20\text{V}$	—	—	25	nA
Reverse Breakdown Voltage	$V^{(BR)R}$	$I_R=10\mu\text{A}$	75	—	—	V
Capacitance between terminals	C_T	$V_R=0\text{V}$, $f=1.0\text{MHz}$	—	—	4	pF
Reverse recovery time	t_{rr}	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1 \times I_R$, $R_L=100\Omega$	—	—	4	ns

8. Typical Characteristics

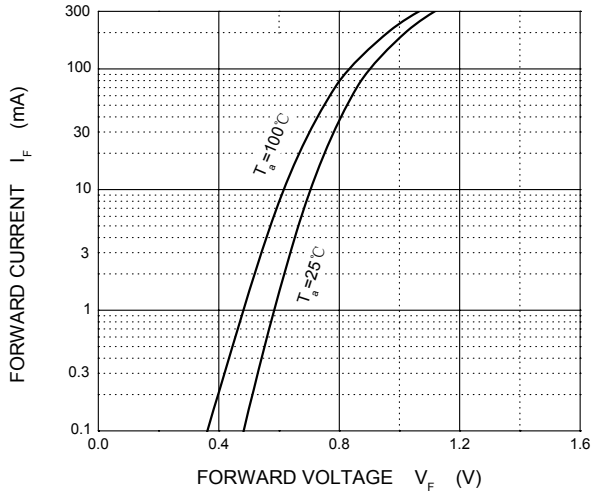


Figure 1. Forward Characteristics

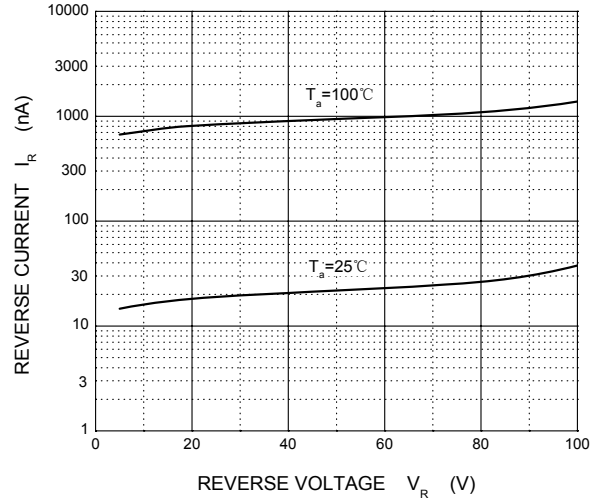


Figure 2. Reverse Characteristics

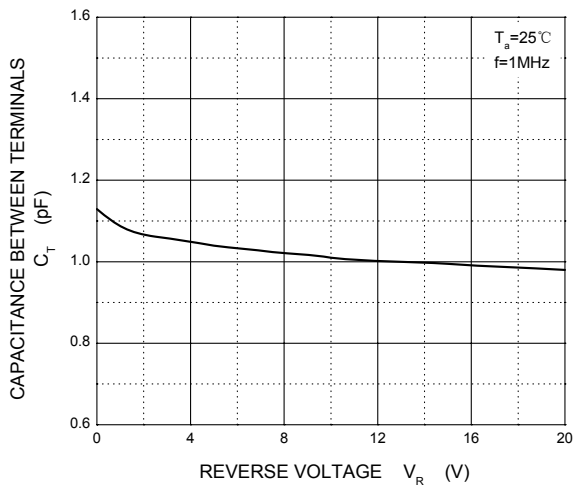


Figure 3. Capacitance Characteristics

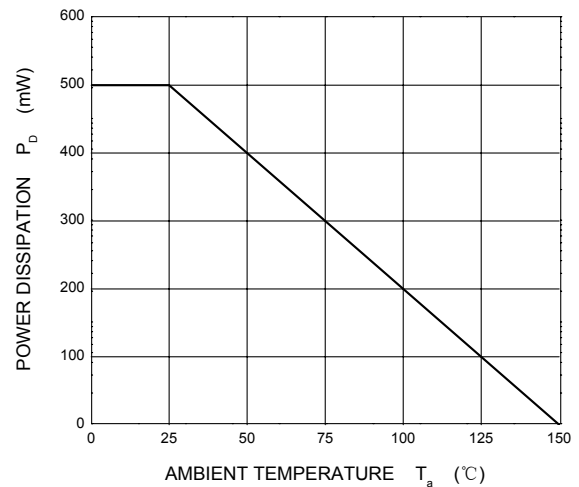
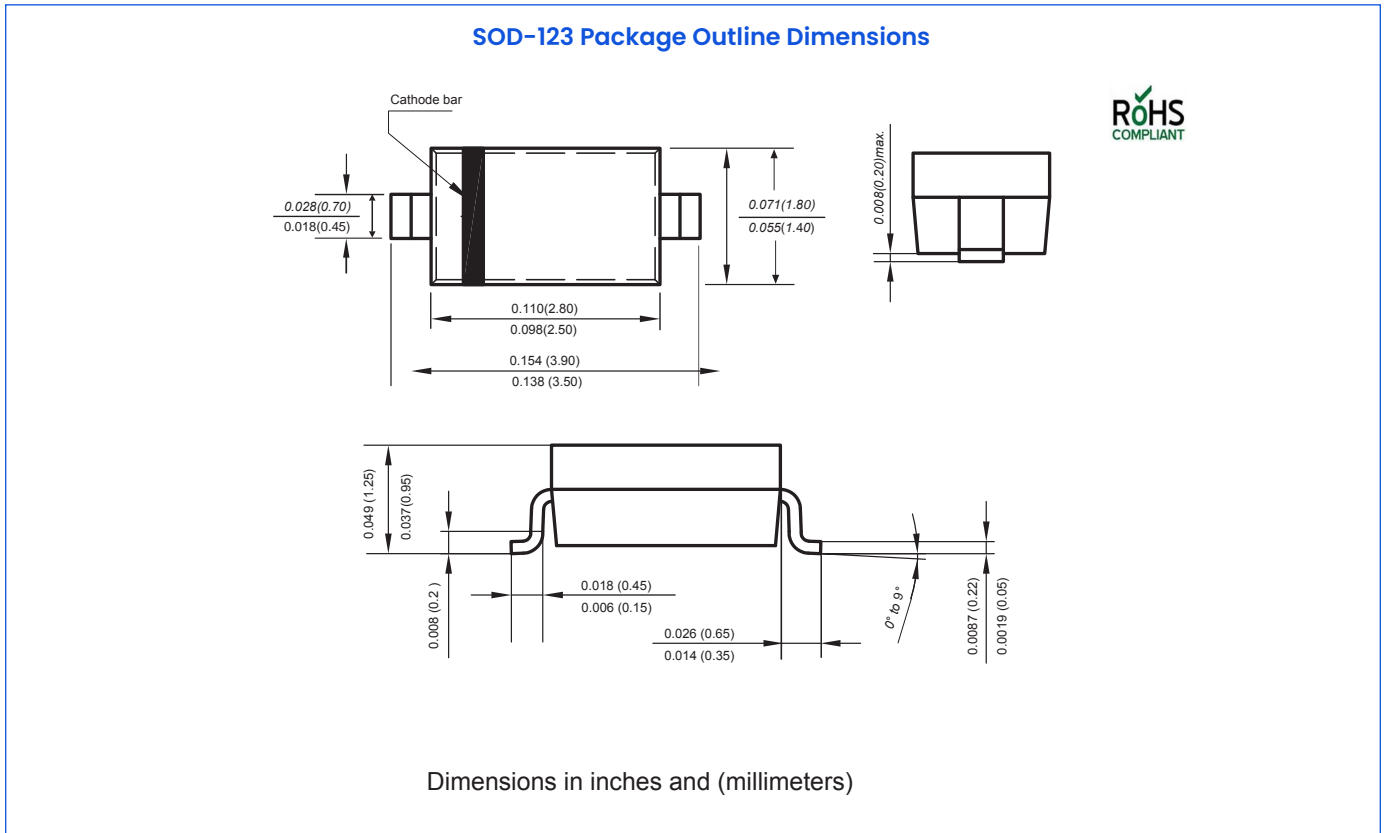


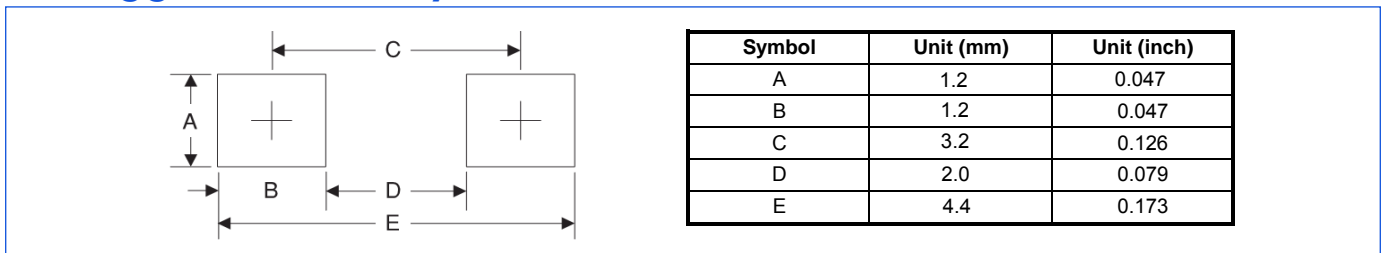
Figure 4. Power Derating Curve

The curve above is for reference only.

9. Outline Drawing



10. Suggested Pad Layout



11. Important Notice and Disclaimer

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