

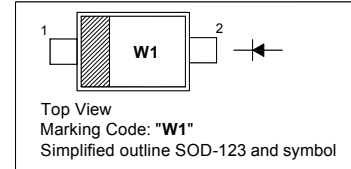
1N4448W

SILICON EPITAXIAL PLANAR DIODE

Fast Switching Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

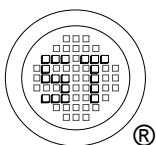


Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	80	V
Average Rectified Output Current	I_O	150	mA
Forward Continuous Current	I_{FM}	300	mA
Non-Repetitive Peak Forward Surge Current (at $t = 1\text{ }\mu\text{s}$)	I_{FSM}	0.5	A
Power Dissipation	P_d	400	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

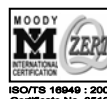
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 5\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 100\text{ mA}$ at $I_F = 150\text{ mA}$	V_F	0.62 - - -	0.72 0.855 1 1.25	V
Reverse Leakage Current at $V_R = 80\text{ V}$ at $V_R = 20\text{ V}$ at $V_R = 75\text{ V}, T_J = 150\text{ }^\circ\text{C}$ at $V_R = 25\text{ V}, T_J = 150\text{ }^\circ\text{C}$	I_R	- - - -	100 25 50 30	nA nA μA μA
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	80	-	V
Capacitance at $V_R = 0.5\text{ V}, f = 1\text{ MHz}$	C_{tot}	-	4	pF
Reverse Recovery Time at $I_F = I_R = 10\text{ mA}, I_{rr} = 0.1 \times I_R, R_L = 100\text{ }\Omega$	t_{rr}	-	4	ns



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Certificate No. 05103

ISO 14001:2004
Certificate No. 7116

ISO 9001:2000
Certificate No. 0505058

BS-OHSAS 18001: 2007
Certificate No. 7116

IECQ QC 080000
Certificate No. 0505058

Dated : 07/04/2009

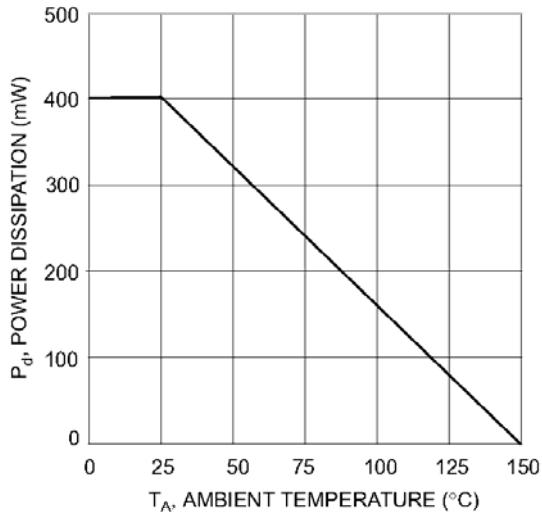


Fig. 1 Power Derating Curve

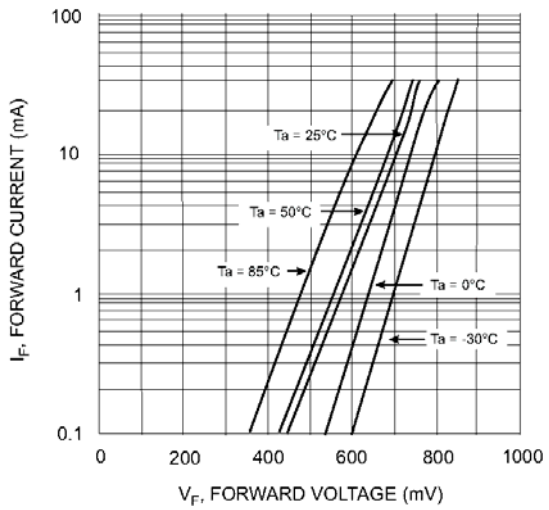


Fig. 2 Typical Forward Characteristics

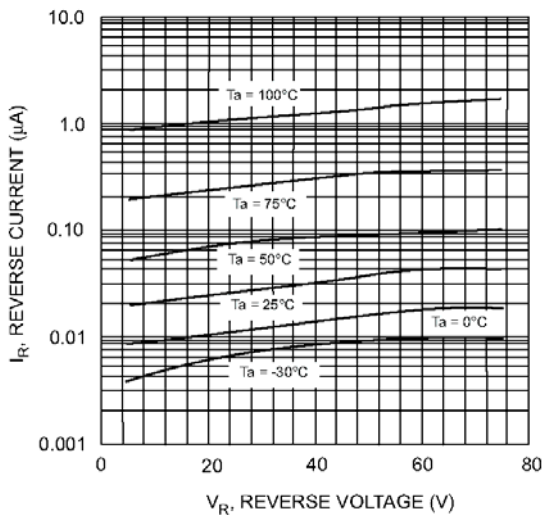


Fig. 3 Typical Reverse Characteristics

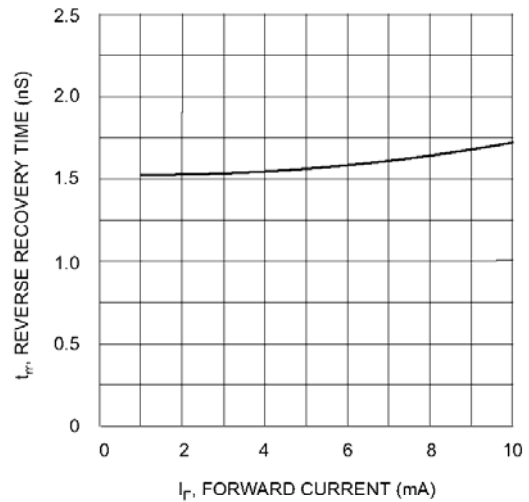


Fig. 4 Reverse Recovery Time vs. Forward Current

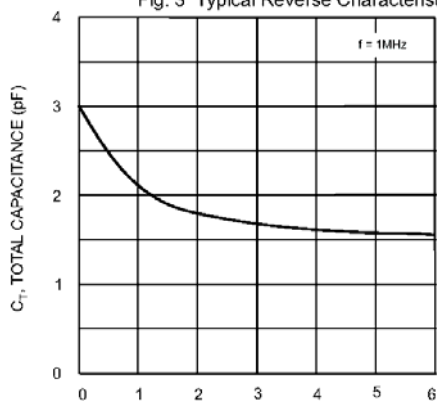
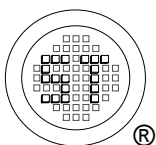
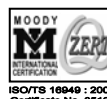


Fig. 5 Total Capacitance vs. Reverse Voltage



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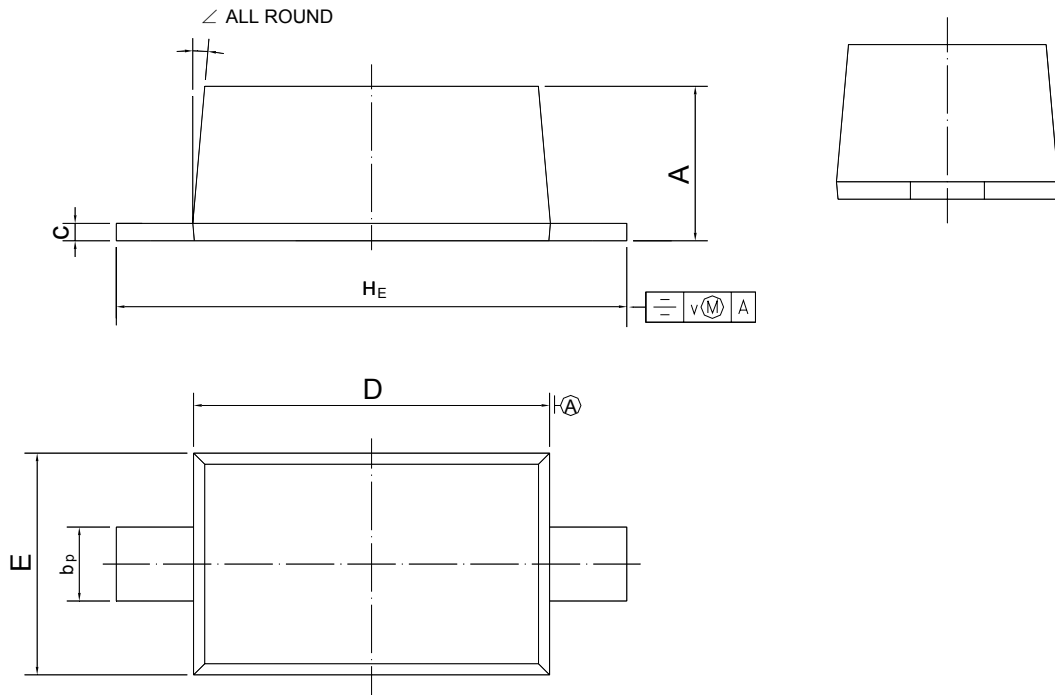
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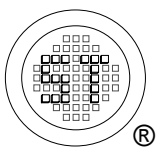
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	b _p	c	D	E	H _E	v	∠
mm	1.15 1.05	0.6 0.5	0.135 0.127	2.7 2.6	1.65 1.55	3.9 3.7	0.2	5°



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