

1N3004W

Silicon Epitaxial Planar Diode

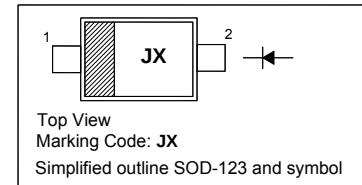
High Voltage Switching Diode

Features

- Fast switching speed
- High Conductance
- High Reverse Breakdown Voltage

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

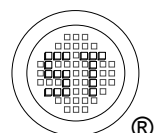


Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	350	V
Working Peak Reverse Voltage	V_{RWM}	300	V
Reverse Voltage	V_R	300	V
Continuous Forward Current	I_F	225	mA
Peak Repetitive Forward Current	I_{FRM}	625	mA
Non-Repetitive Peak Forward Surge Current at $t = 1 \mu\text{s}$ at $t = 1 \text{ s}$	I_{FSM}	4 1	A
Power Dissipation	P_d	350	mW
Operating and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 20 \text{ mA}$ at $I_F = 100 \text{ mA}$ at $I_F = 200 \text{ mA}$	V_F	- - -	0.87 1 1.25	V
Reverse Current at $V_R = 240 \text{ V}$ at $V_R = 240 \text{ V}, T_j = 150^\circ\text{C}$	I_R	- -	100 100	nA μA
Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_{(BR)R}$	350	-	V
Total Capacitance at $V_R = 0, f = 1 \text{ MHz}$	C_T	-	5	pF
Reverse Recovery Time at $I_F = I_R = 30 \text{ mA}, i_{rr} = 0.1 I_R, R_L = 100 \Omega$	t_{rr}	-	50	ns



Dated : 29/10/2009

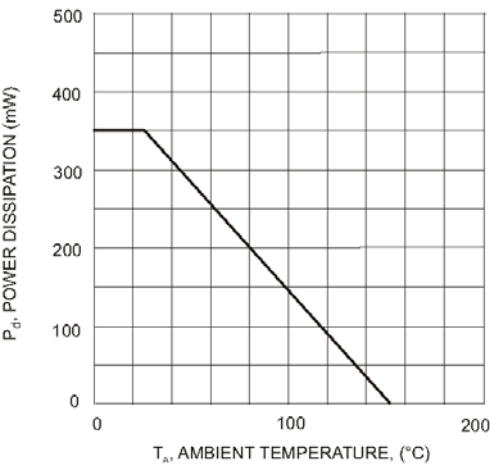


Fig. 1 Power Derating Curve, total package

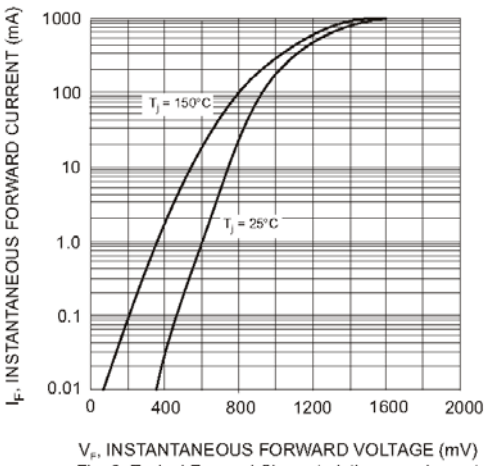


Fig. 2 Typical Forward Characteristics, per element

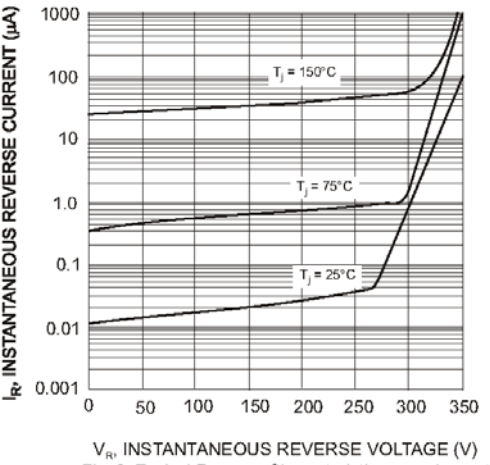


Fig. 3 Typical Reverse Characteristics, per element

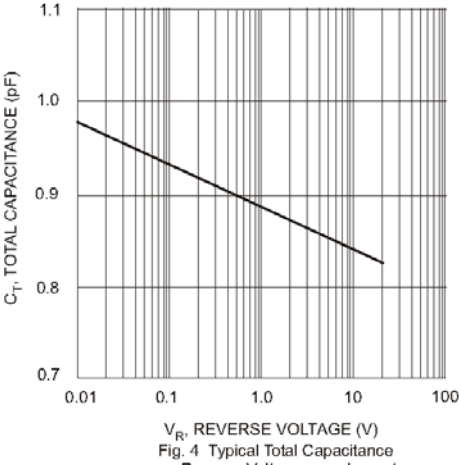
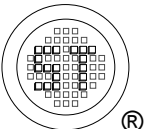


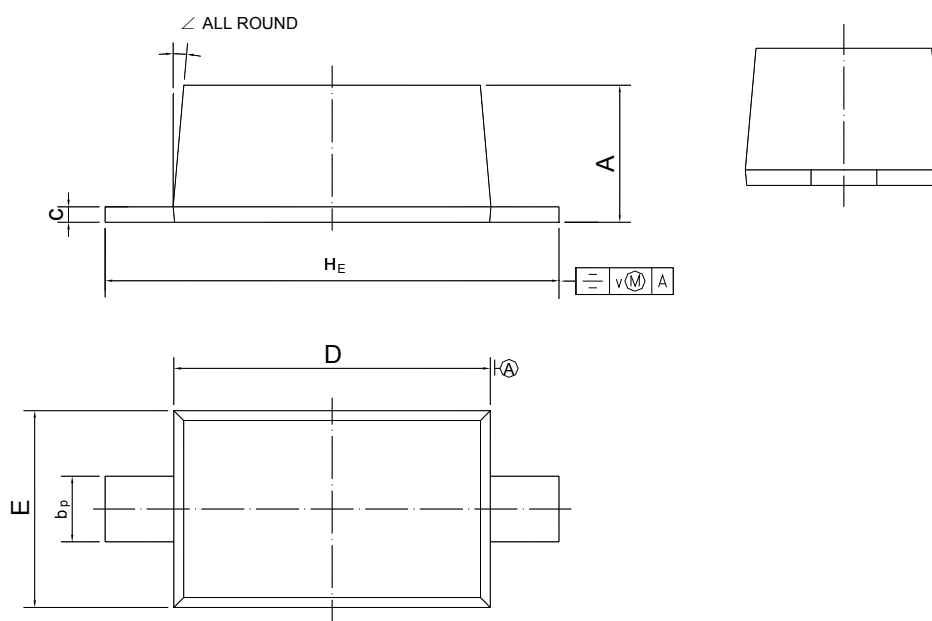
Fig. 4 Typical Total Capacitance vs. Reverse Voltage, per element



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 0.100	2.7 2.6	1.65 1.55	3.85 3.55	0.2	5°

