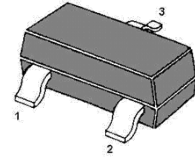


MMBD3004/SE /CC/CA Silicon Epitaxial Planar Switching Diode

High Voltage Switching Diode

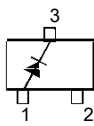
Features

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

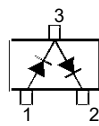


SOT-23 Plastic Package

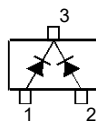
MMBD3004



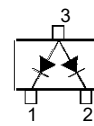
MMBD3004SE



MMBD3004CC



MMBD3004CA



Marking Code: "HC"

Marking Code: "PY"

Marking Code: "PZ"

Marking Code: "RA"

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	350	V
Working Peak Reverse Voltage	V_{RWM}	300	V
DC Blocking 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	I_{FSM}	1 4	A
		at $t = 1\text{ s}$ at $t = 1\text{ }\mu\text{s}$	
Power Dissipation	P_d	350	mW
Operating and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	$^{\circ}\text{C}$

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

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 $V_R = 240\text{ V}, T_j = 150\text{ }^{\circ}\text{C}$	I_R	- -	100 100	nA μA
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	300	-	V
Total Capacitance at $V_R = 0, f = 1\text{ MHz}$	C_T	-	5	pF
Reverse Recovery Time at $I_F = I_R = 30\text{ mA}, I_{tr} = 0.1 I_R, R_L = 100\text{ }\Omega$	t_{rr}	-	50	ns

Typical Characteristics

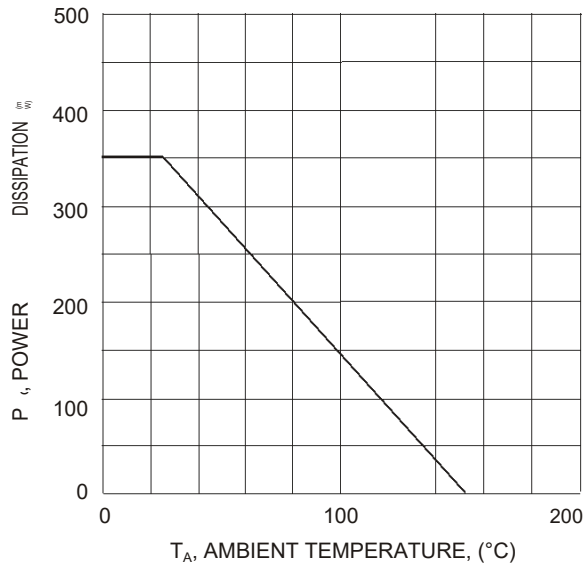


Fig. 1 Power Derating Curve, total package

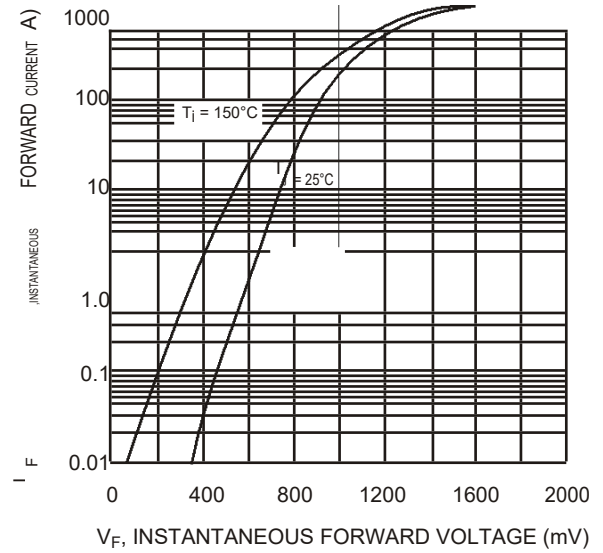


Fig. 2 Typical Forward Characteristics, per element

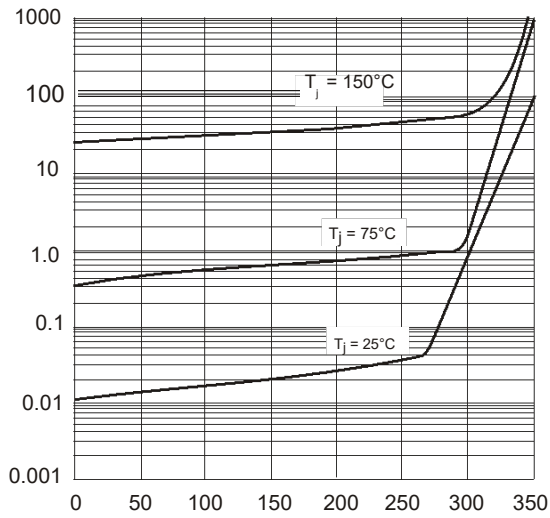


Fig. 3 Typical Reverse Characteristics, per element

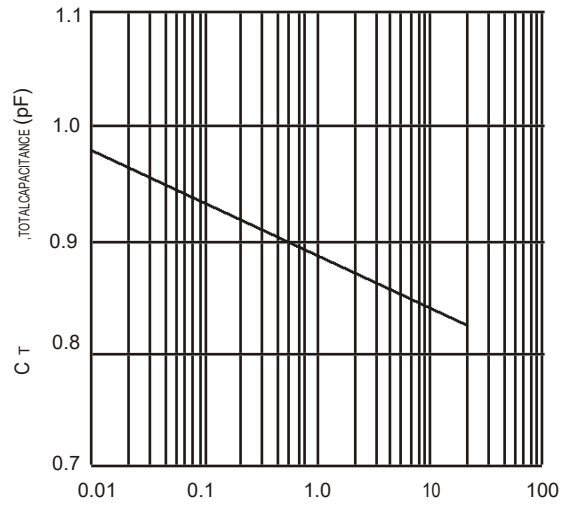


Fig. 4 Typical Total Capacitance vs. Reverse Voltage, per element

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23

