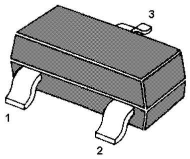
MMBD3004 / SE / CC / CA

Silicon Epitaxial Planar Switching Diode

High Voltage Switching Diode

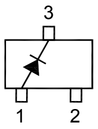
Features

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

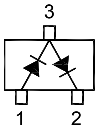


MMBD3004 Marking Code: "HC"
MMBD3004SE Marking Code: "PY"
MMBD3004CC Marking Code: "PZ"
MMBD3004CA Marking Code: "RA"
SOT-23 Plastic Package

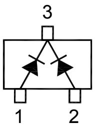
MMBD3004



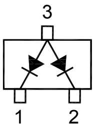
MMBD3004SE



MMBD3004CC



MMBD3004CA



Absolute Maximum Ratings (T_a = 25 °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 at t = 1 s at t = 1 µs	I_{FSM}	1 4	A
Power Dissipation	P_d	350	mW
Operating and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	°C

Characteristics at T_a = 25 °C

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

TOP DYNAMIC

ISO14001 : 2004 Certificate No. 121505007
ISO 9001 : 2008 Certificate No. 50114012
OHSAS 18001 : 2007 Certificate No. 05131506006
IECQ QC 080000 Certificate No. IECQ-H MOODY 14.0022

Dated : 22/12/2012 Rev: 01

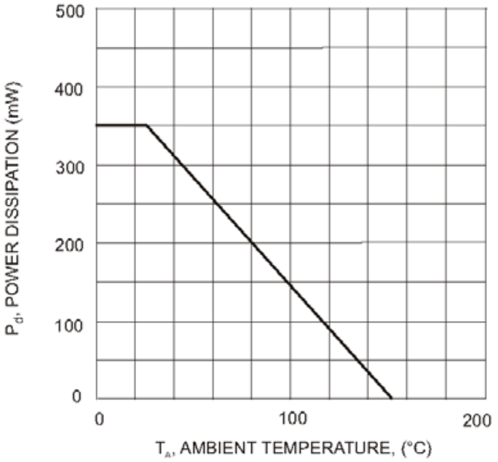


Fig. 1 Power Derating Curve, total package

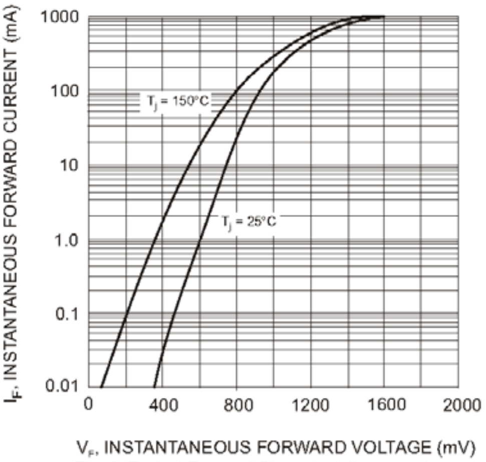


Fig. 2 Typical Forward Characteristics, per element

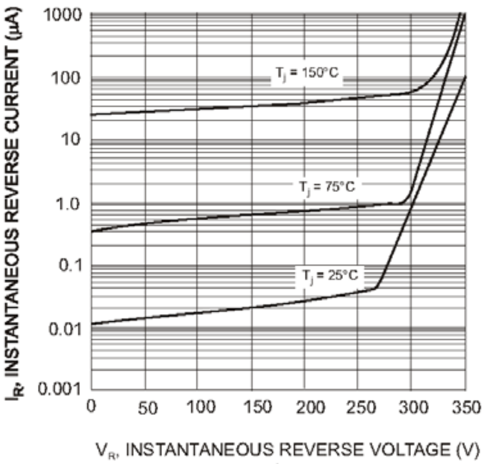


Fig. 3 Typical Reverse Characteristics, per element

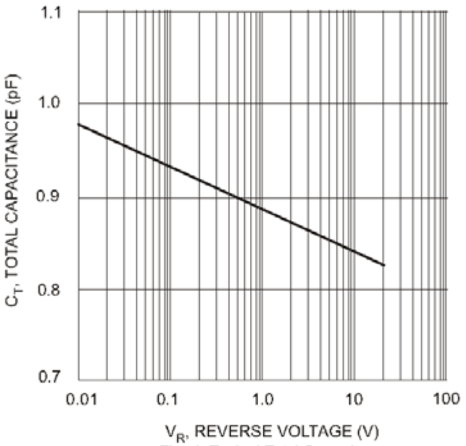


Fig. 4 Typical Total Capacitance vs. Reverse Voltage, per element