

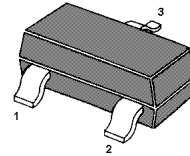
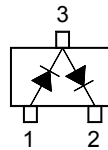
MMBD3004SE

SILICON EPITAXIAL PLANAR DIODE

High Voltage Switching Diode

Features

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



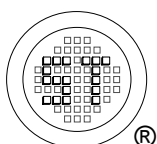
Marking Code: "ZB"
SOT-23 Plastic Package

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
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}	4	A
at $t = 1\ \mu\text{s}$		1	
at $t = 1\ \text{s}$			
Power Dissipation	P_d	350	mW
Operating and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	$^\circ\text{C}$

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

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



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
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Certificate No. 7116



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Certificate No. 0506098

Dated : 18/12/2007

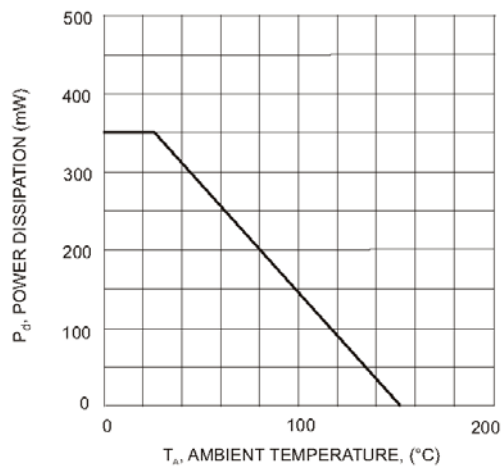


Fig. 1 Power Derating Curve, total package

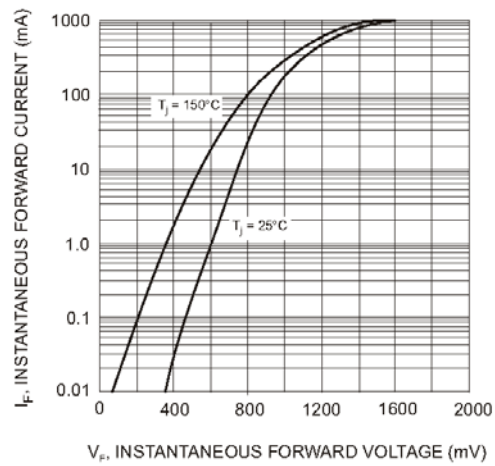


Fig. 2 Typical Forward Characteristics, per element

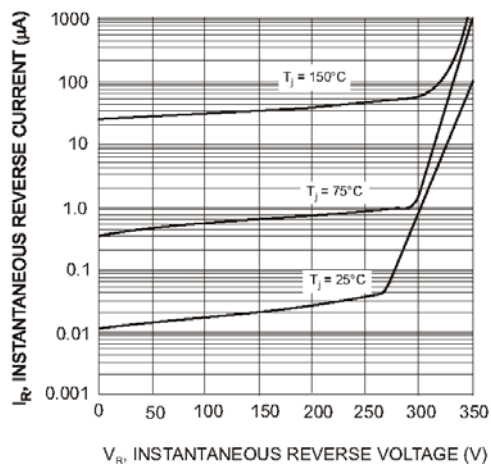


Fig. 3 Typical Reverse Characteristics, per element

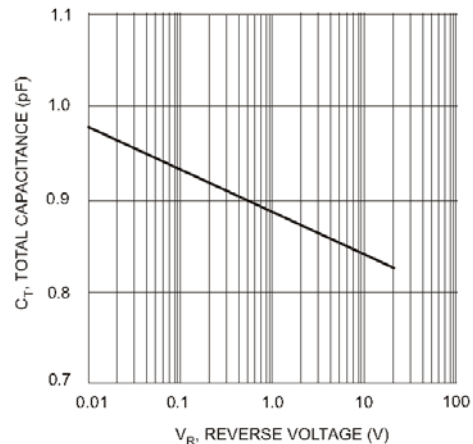
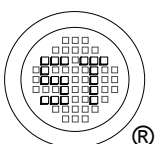


Fig. 4 Typical Total Capacitance vs. Reverse Voltage, per element



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