



MMBD3004 THRU MMBD3004CA

Silicon Epitaxial Planar Switching Diode

Features

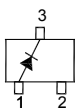
- Fast switching speed
- High Conductance
- High Reverse Breakdown Voltage Rating

SOT-23

Mechanical Data

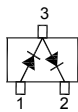
- Case: Molded Plastic, SOT-23
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Plated Leads Solderable per MIL-STD-750, Method-2026.
- Marking:
- Mounting Position : Any.
- Equivalent Circuit:

MMBD3004



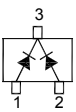
Marking Code:
"HC"

MMBD3004SE



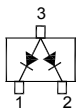
Marking Code:
"PY"

MMBD3004CC

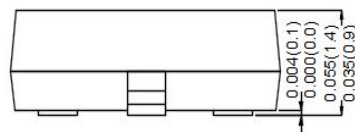
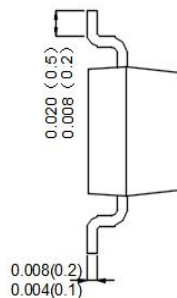
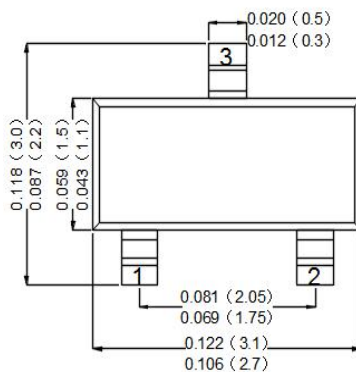


Marking Code:
"PZ"

MMBD3004CA



Marking Code:
"RA"



Dimensions in inches and (millimeters)

Maximum Ratings Maximum Ratings (Rating at 25°C ambient temperature unless otherwise specified.)

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 $t = 1$ s at $t = 1$ μ s	
Power Dissipation	P_d	350	mW
Operating and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	°C

Electrical Characteristics (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage	V_F			V
at $I_F = 20$ mA		-	0.87	
at $I_F = 100$ mA		-	1	
at $I_F = 200$ mA		-	1.25	
Reverse Current	I_R	-	100	nA
at $V_R = 240$ V		-	100	μ A
at $V_R = 240$ V, $T_j = 150$ °C				
Reverse Breakdown Voltage	$V_{(BR)R}$	300	-	V
at $I_R = 100$ μ A				
Total Capacitance	C_T	-	5	pF
at $V_R = 0$, $f = 1$ MHz				
Reverse Recovery Time	t_{rr}	-	50	ns
at $I_F = I_R = 30$ mA, $t_{rr} = 0.1$ I_{R1} , $R_L = 100$ Ω				



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Rating And Characteristic Curves

Fig. 1 Power Derating Curve, total package

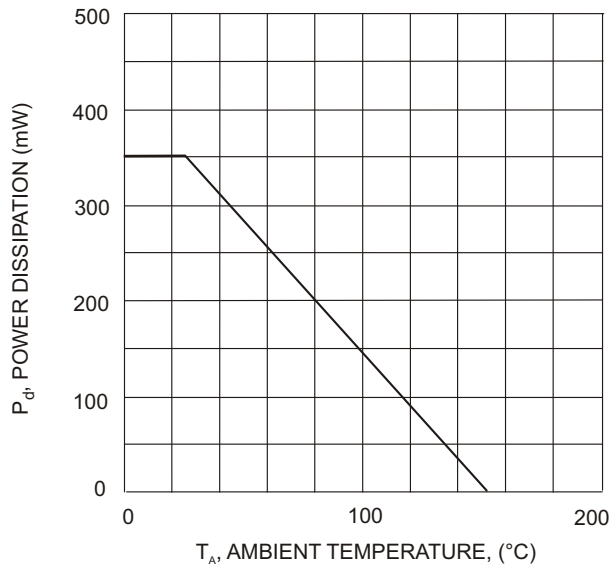


Fig. 2 Typical Forward Characteristics, per element

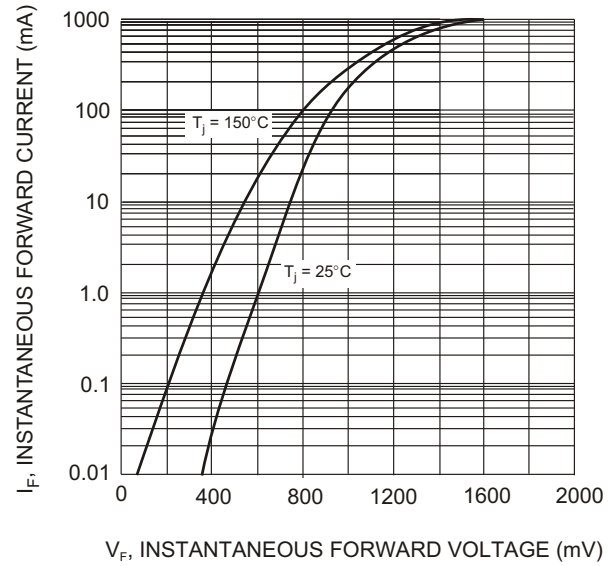


Fig. 3 Typical Reverse Characteristics, per element

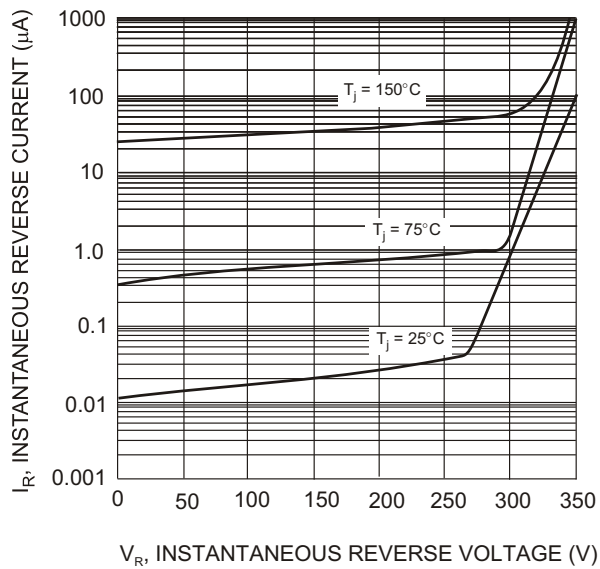
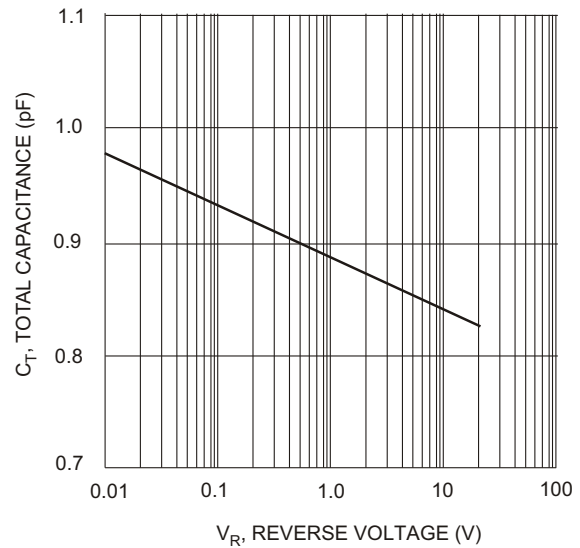


Fig. 4 Typical Total Capacitance vs. Reverse Voltage, per element





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