

Small Signal Product

350mW, SMD Switching Diode

FEATURES

- Fast switching speed
- Surface mount device type
- Moisture sensitivity level 1
- Matte Tin (Sn) lead finish with Nickel (Ni) underplate
- Pb free version and RoHS compliant
- Packing code with suffix "G" means green compound (halogen-free)



SOT-23



MECHANICAL DATA

- Case: SOT-23 small outline plastic package
- Terminal: Matte tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- High temperature soldering guaranteed : 260°C/10s
- Weight: 8 ± 0.5 mg

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P _D	350	mW
Repetitive Peak Reverse Voltage	V _{RRM}	350	V
Repetitive Peak Forward Current	I _{FRM}	625	mA
Mean Forward Current	I _O	225	mA
Non-Repetitive Peak Forward Surge Current	I _{FSM}	4 1	A
		Pulse Width=1μs Pulse Width=1s	
Thermal Resistance (Junction to Ambient)	R _{θJA}	357	°C/W
Junction and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

PARAMETER	SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	I _R =100μA V _(BR)	350	-	V
Forward Voltage	I _F =100mA V _F	-	1.00	V
	I _F =200mA	-	1.25	
Reverse Leakage Current	V _R =240V I _R	-	0.1	μA
	V _R =240V, T _J =150°C	-	100	
Junction Capacitance	V _R =1V, f=1.0MHz C _J	-	5	pF
Reverse Recovery Time	I _F =I _R =30mA, R _L =100Ω, I _{RR} =0.1I _R t _{rr}	-	50	ns

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RATINGS AND CHARACTERISTICS CURVES

($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Fig. 1 Typical Forward Characteristics

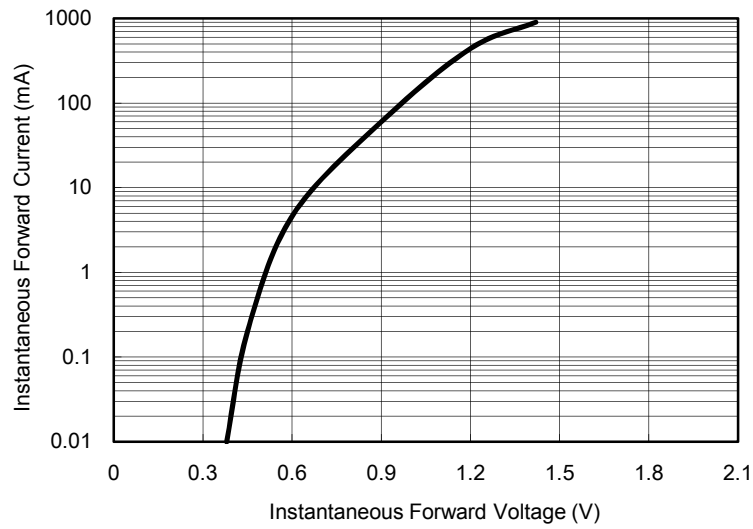


Fig. 2 Typical Reverse Characteristics

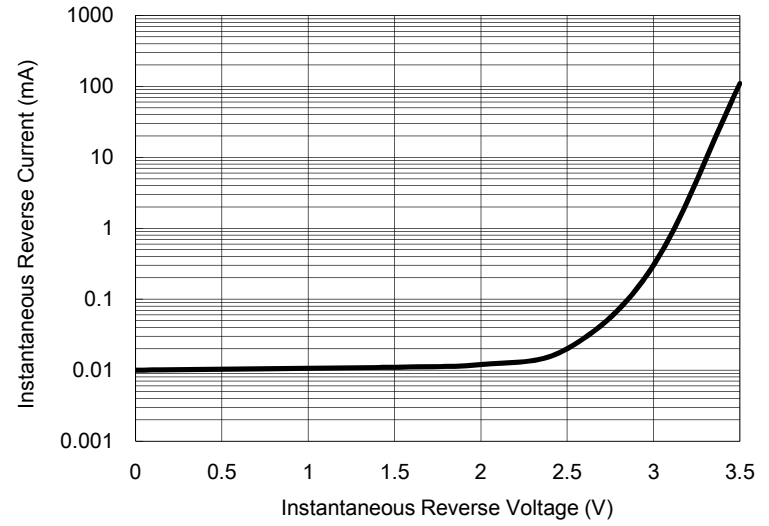


Fig. 3 Admissible Power Dissipation Curve

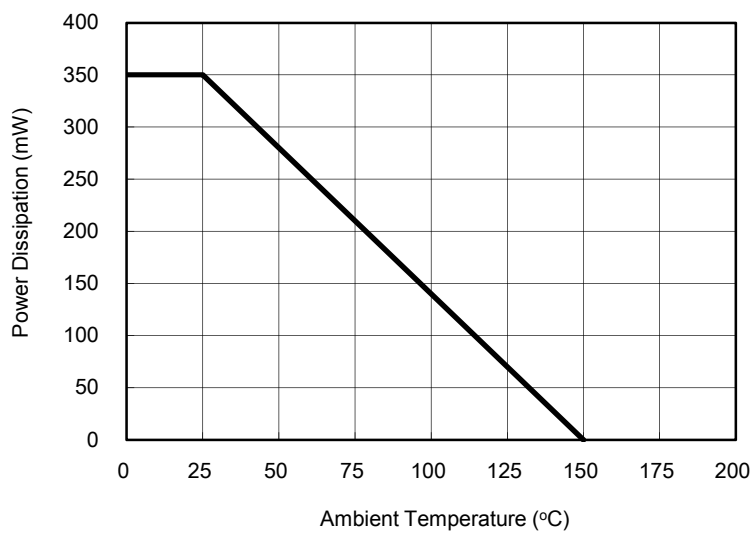
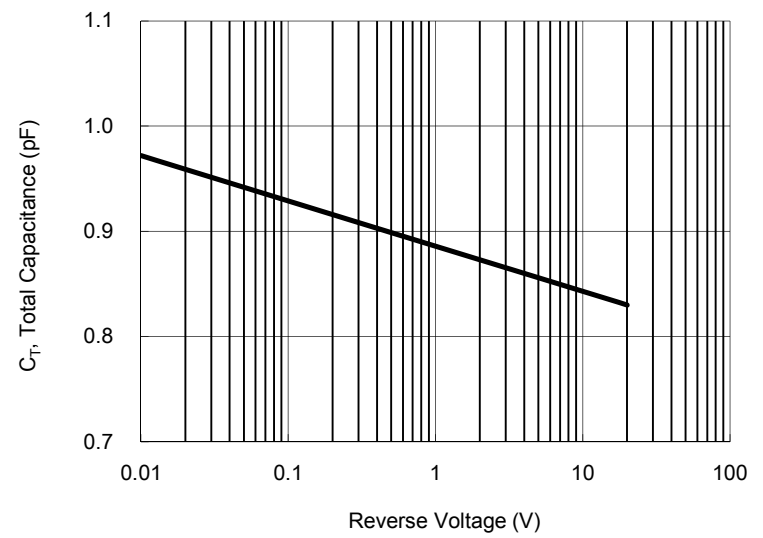


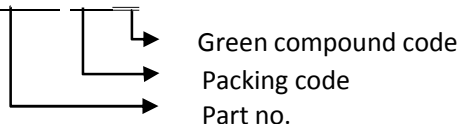
Fig. 4 Typical Capacitance VS. Reverse Voltage



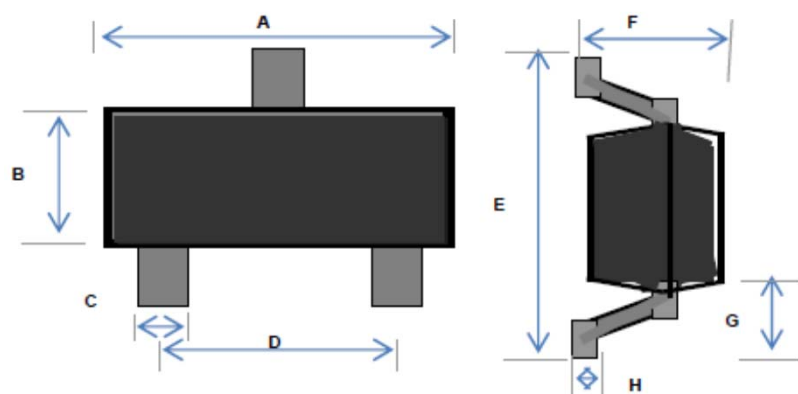
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ORDER INFORMATION (EXAMPLE)

MMBD3004 RFG

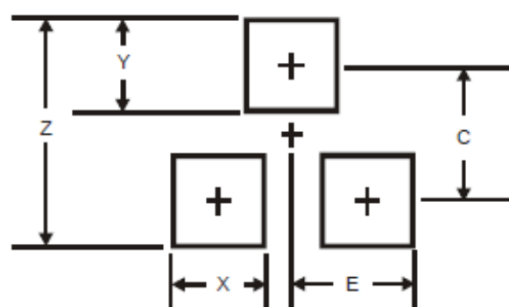


PACKAGE OUTLINE DIMENSIONS
SOT-23



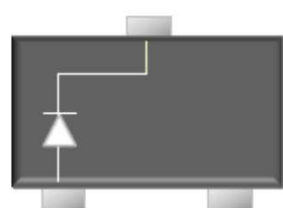
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.70	3.10	0.106	0.122
B	1.10	1.50	0.043	0.059
C	0.30	0.51	0.012	0.020
D	1.78	2.04	0.070	0.080
E	2.10	2.64	0.083	0.104
F	0.89	1.30	0.035	0.051
G	0.55 REF		0.022 REF	
H	0.10 REF		0.004 REF	

SUGGEST PAD LAYOUT

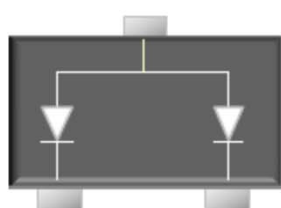


DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
Z	2.8	0.110
X	0.7	0.028
Y	0.9	0.035
C	1.9	0.075
E	1.0	0.039

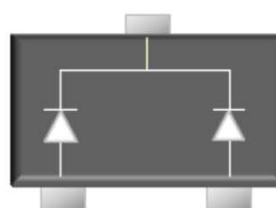
PIN CONFIGURATION



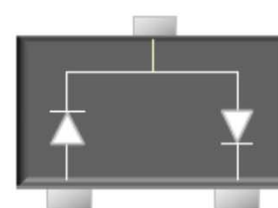
MMBD3004



MMBD3004CA



MMBD3004CC



MMBD3004SE

MARKING

Part No.	Marking
MMBD3004	HC
MMBD3004CA	RA
MMBD3004CC	PZ
MMBD3004SE	PY

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