

Small Signal Product

SMD Switching Diode

FEATURES

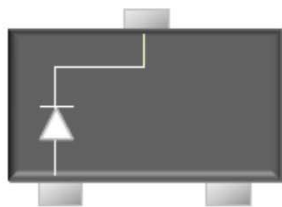
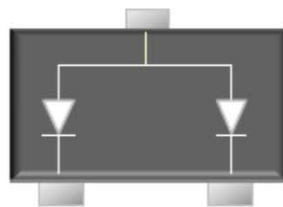
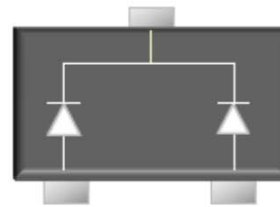
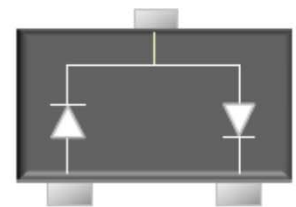
- Fast switching speed
- Surface mount device type
- Moisture sensitivity level 1
- Matte Tin(Sn) lead finish with Nickel(Ni) underplate
- Pb free and RoHS compliant
- Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code


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: 0.008grams (approximately)

PIN CONFIGURATION


MMBD4148

MMBD4148CA

MMBD4148CC

MMBD4148SE

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}	100	V
Reverse Voltage	V _R	75	V
Average Rectified Forward Current	I _{F(AV)}	200	mA
Repetitive Peak Forward Voltage	I _{FRM}	700	mA
Non-Repetitive Peak Forward Surge Current	I _{FSM}	2	A
		1	
Thermal Resistance (Junction to Ambient)	R _{θJA}	357	°C/W
Junction and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

PARAMETER	SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	V _(BR)	100	-	V
		75	-	
Forward Voltage	V _F	-	1.0	V
Reverse Leakage Current	I _R	-	25.0	nA
		-	5.0	μA
		-	50.0	μA
Junction Capacitance	C _J	-	4.0	pF
Reverse Recovery Time	t _{rr}	-	4.0	ns

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Fig. 1 Power Derating Curve

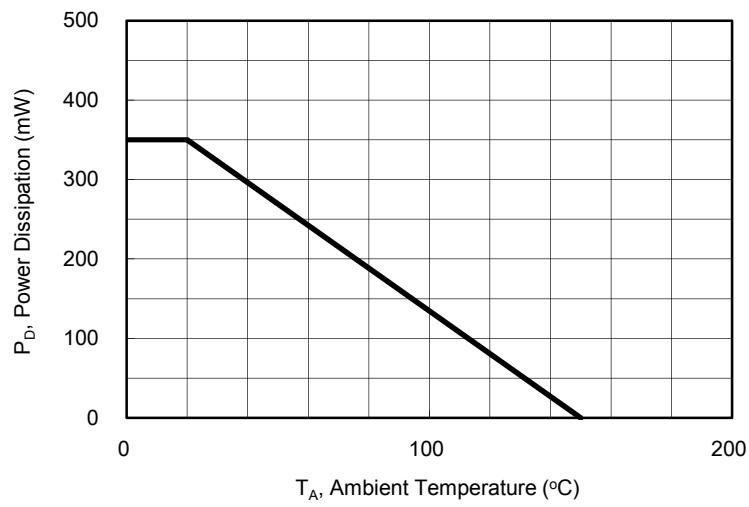


Fig. 2 Forward Characteristics

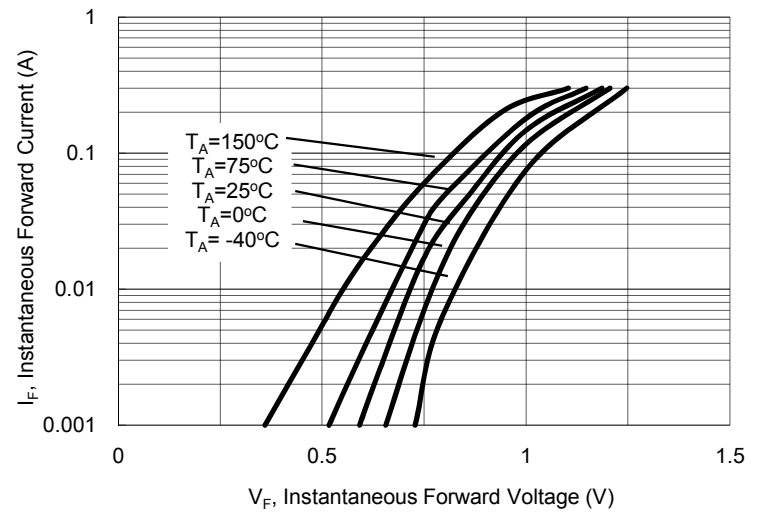


Fig. 3 Typical Reverse Characteristics

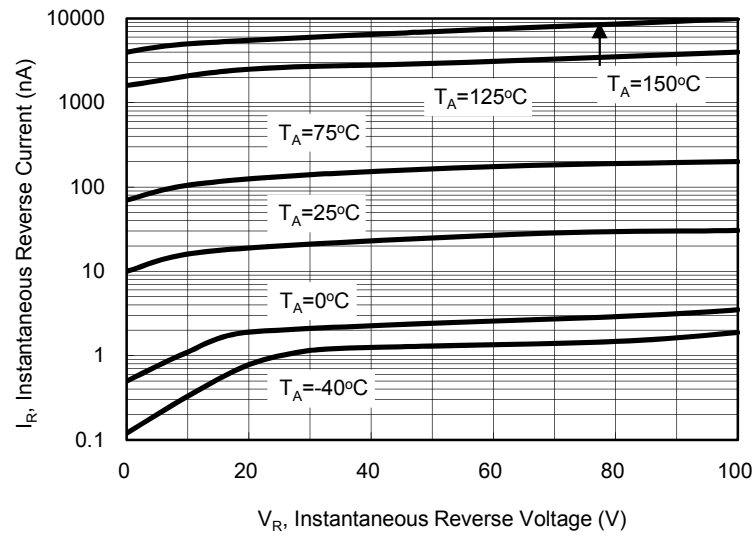
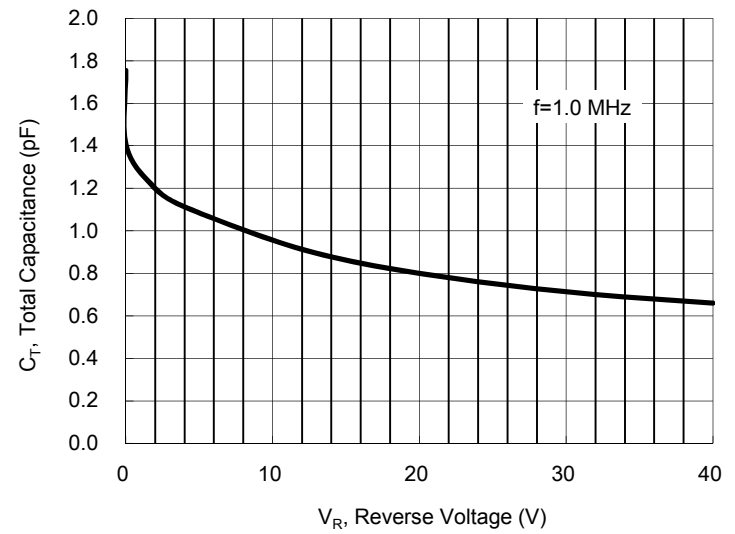


Fig. 4 Typical Capacitance vs. Reverse Voltage



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ORDERING INFORMATION

PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
MMBD414x (Note 1)	(Note 2)	RF	G	SOT-23	3K / 7" Reel
		R5			10K / 13" Reel

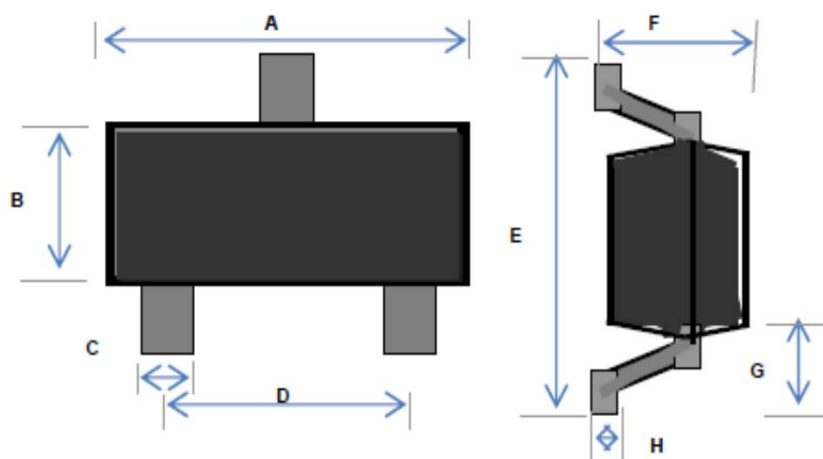
Note 1 : "x" is Device Code from "8" thru "8SE".

Note 2: Manufacture special control, if empty means no special control requirement.

EXAMPLE

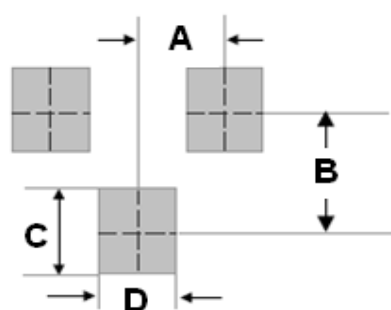
PREFERRED P/N	PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
MMBD4148 R5G	MMBD4148		R5	G	Green compound
MMBD4148-B0 R5G	MMBD4148	B0	R5	G	Green compound

DIMENSIONS



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	0.1 REF		0.004 REF	

SUGGEST PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
A	0.95	0.037
B	2.0	0.079
C	0.9	0.035
D	0.8	0.031

MARKING

Part No.	Marking
MMBD4148	5D
MMBD4148CA	A1
MMBD4148CC	A4
MMBD4148SE	A7

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