

MMBD3004A/C/S

HIGH VOLTAGE SURFACE MOUNT SWITCHING DIODE

VOLTAGE

350 Volts

POWER

410 mWatts

SOT-23

Unit: inch (mm)

FEATURES

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- High Conductance
- High Reverse Breakdown Voltage Rating
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

Case: SOT-23, Plastic

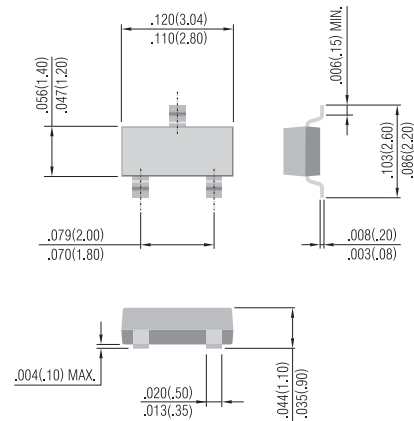
Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.008 gram

Marking : MMBD3004A : P11

MMBD3004C : P12

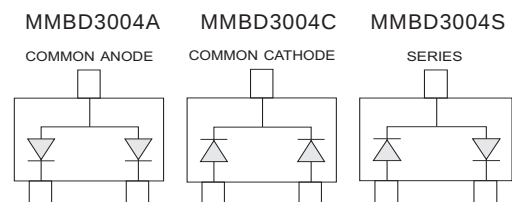
MMBD3004S : P13



MAXIMUM RATINGS($T_A=25^{\circ}\text{C}$, unless otherwise specified)

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	350	V
Working Peak Reverse Voltage DC Blocking Voltage	V_{RWM} V_R	240	V
RMS Reverse Voltage	$V_{R(RMS)}$	212	V
Forward Continuous Current (Note 1)	I_F	225	mA
Peak Repetitive Forward Current (Note 1)	I_{FRM}	625	mA
Non-Repetitive Peak Forward Surge Current @ $t=0.001\text{ms}$ @ $t=1000\text{ms}$	I_{FSM}	4.0 1.0	A
Power Dissipation (Note 1)	P_d	410	mW
Typical Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	310	$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150	$^{\circ}\text{C}$

Notes : 1. Part mounted on FR-4 board with recommended pad layout.



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ELECTRICAL CHARACTERISTICS($T_A=25^{\circ}\text{C}$, unless otherwise specified, per element)

CHARACTERISTIC	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITION
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	350	-	-	V	$I_R=150\mu\text{A}$
Forward Voltage (Note 2)	V_F	-	0.78 0.93 1.03	0.87 1.0 1.25	V	$I_F=20\text{mA}$ $I_F=100\text{mA}$ $I_F=200\text{mA}$
Reverse Current (Note 2)	I_R	-	30	100	nA	$V_R=240\text{V}$
Total Capacitance	C_T	-	1.0	5.0	pF	$V_R=0\text{V}, f=1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	-	-	50	ns	$I_F=I_R=30\text{mA}$ $I_{rr}=3.0\text{mA}, R_L=100\Omega$

Notes : 2. Short duration test pulse used to minimize self-heating effect

ELECTRICAL CHARACTERISTICS CURVES

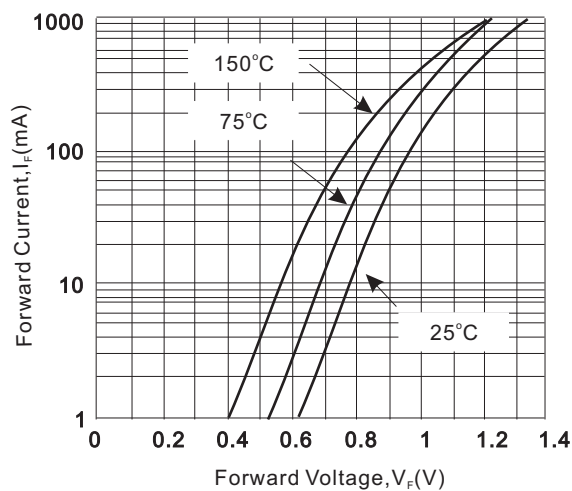


FIG.1 Typical Forward

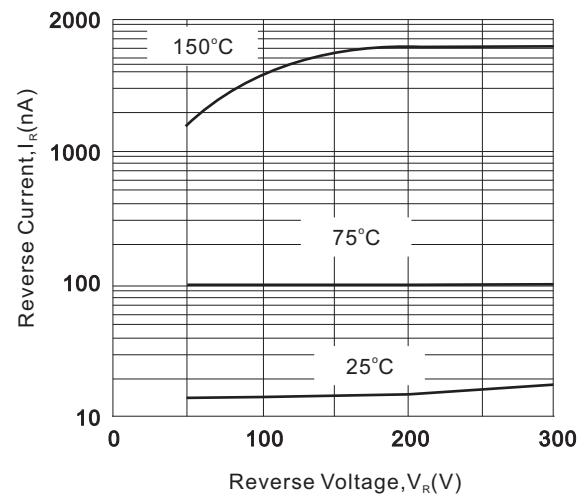


FIG.2 Typical Reverse

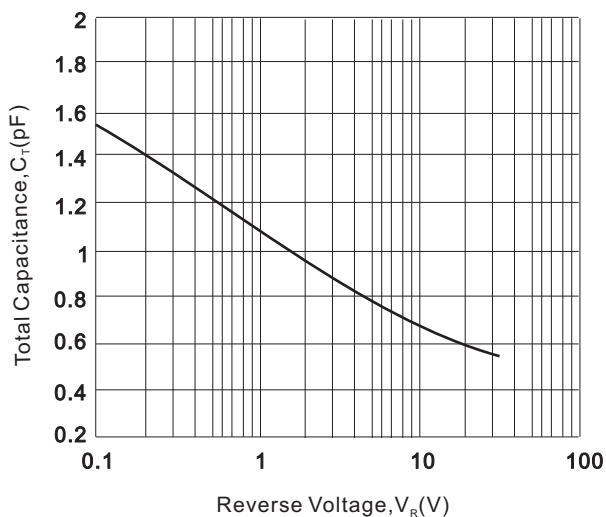


FIG.3 Typical Capacitance

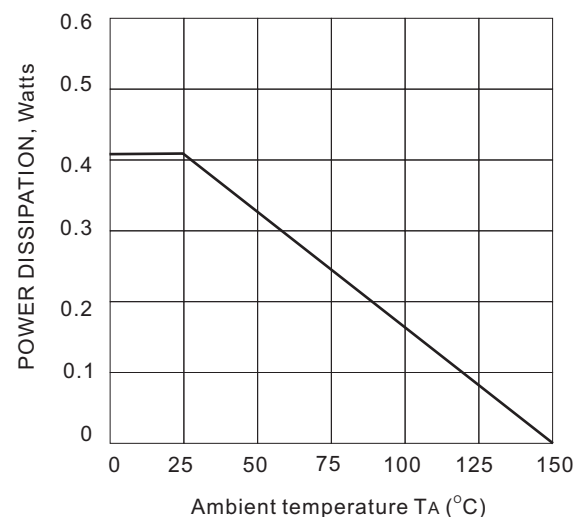


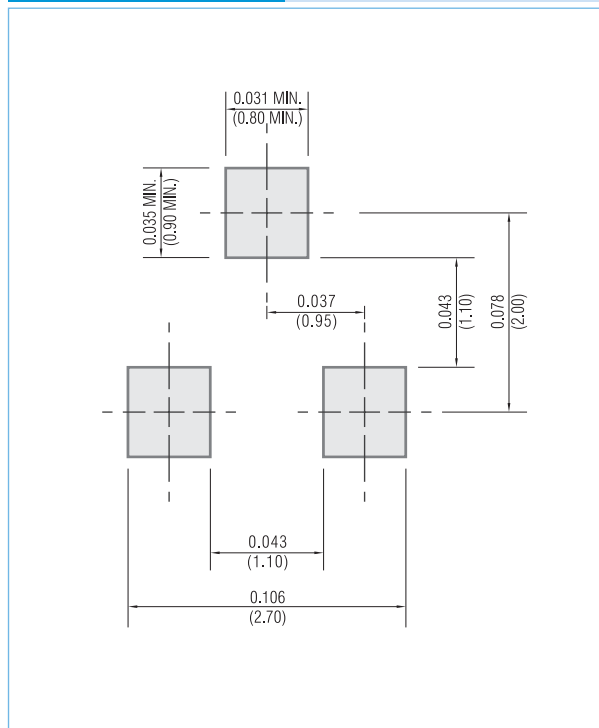
FIG.4 Forward current derating curve

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MOUNTING PAD LAYOUT

SOT-23

Unit: inch (mm)



ORDER INFORMATION

- Packing information

T/R - 12K per 13" plastic Reel

T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

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