



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

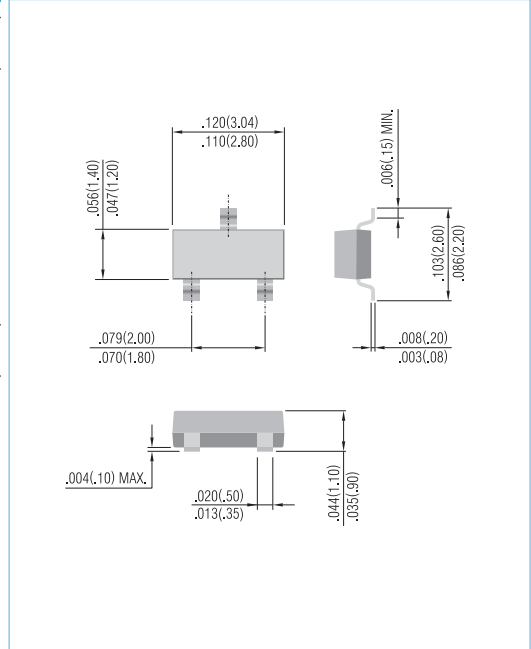
Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.008 gram

Marking : MMBD3004A : P11

MMBD3004C : P12

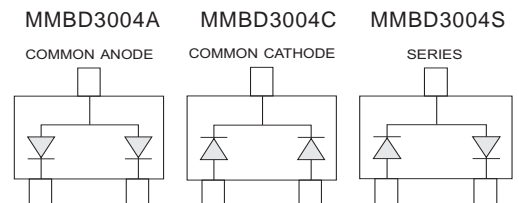
MMBD3004S : P13



MAXIMUM RATINGS(T_A=25°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=0.001ms @ t=1000ms	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 _{θJA}	310	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to + 150	°C

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





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ELECTRICAL CHARACTERISTICS(T_A=25°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 =150μA
Forward Voltage (Note 2)	V _F	-	0.78 0.93 1.03	0.87 1.0 1.25	V	I _F =20mA I _F =100mA I _F =200mA
Reverse Current (Note 2)	I _R	-	30	100	nA	V _R =240V
Total Capacitance	C _T	-	1.0	5.0	pF	V _R =0V,f=1.0MHz
Reverse Recovery Time	trr	-	-	50	ns	I _F =I _R =30mA I _{tr} =3.0mA,R _L =100Ω

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

ELECTRICAL CHARACTERISTICS CURVES

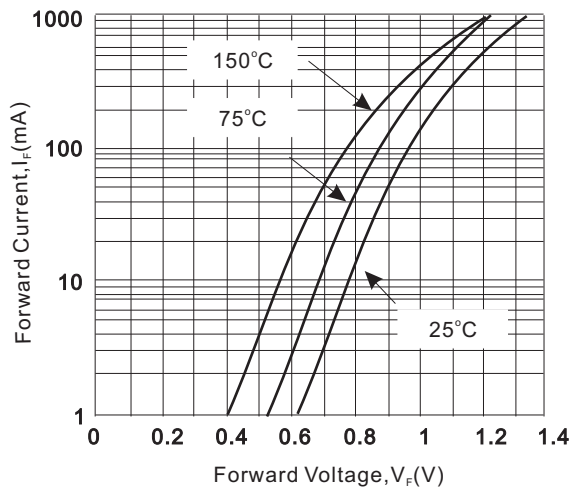


FIG.1 Typical Forward

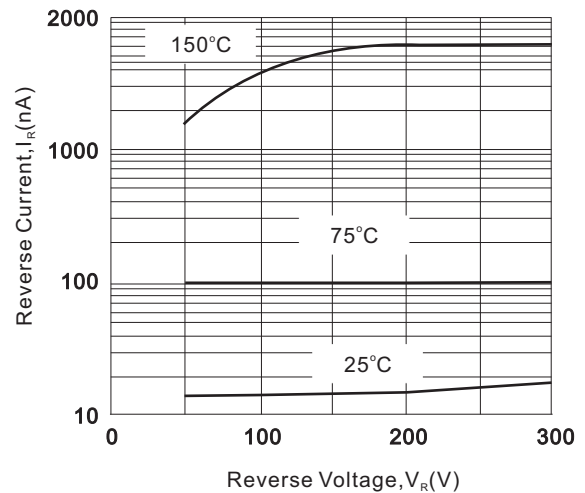


FIG.2 Typical Reverse

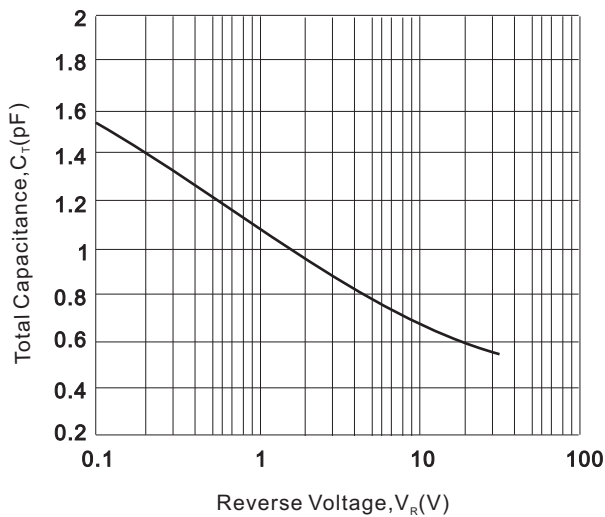


FIG.3 Typical Capacitance

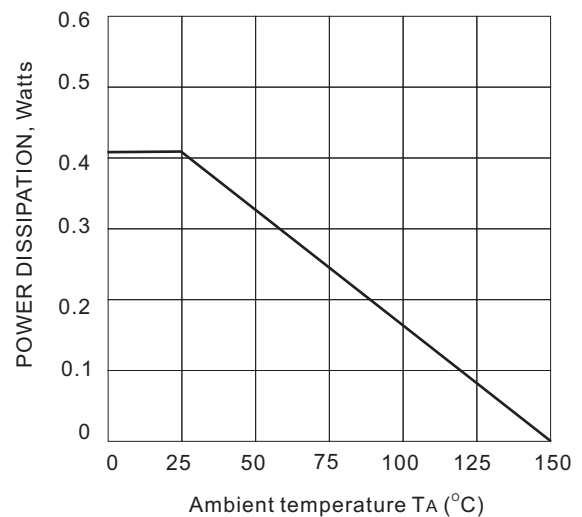
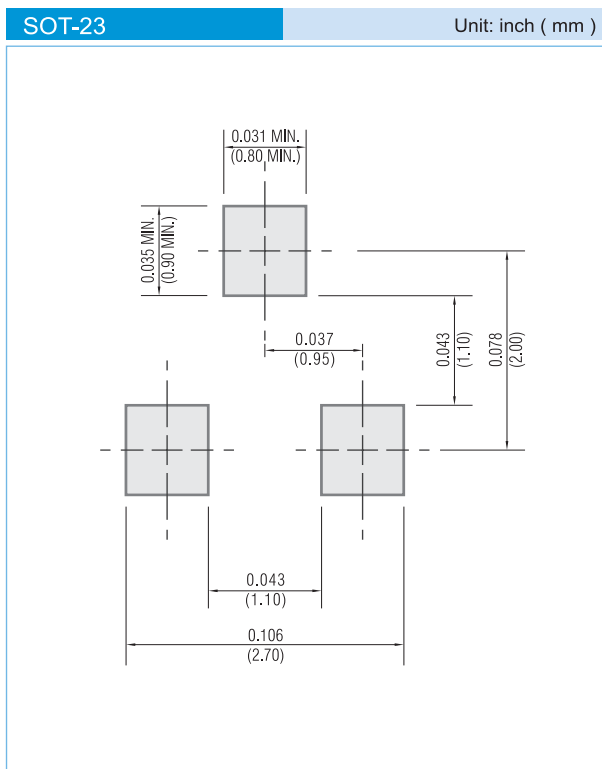


FIG.4 Forward current derating curve



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

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