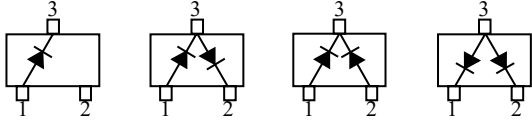




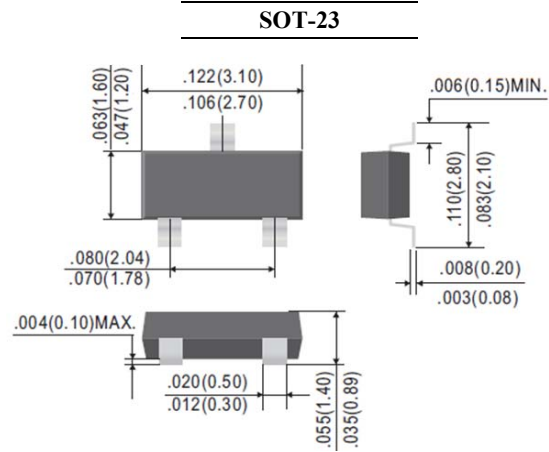
MMBD1501AH THRU MMBD15005AH SWITCHING DIODES

FEATURES

- Low Leakage Current
- Suffix "H" indicates Halogen-free parts, ex.MMBD1501AH



MMBD1501AH MMBD1503AH MMBD1504AH MMBD1505AH



Dimensions in inch and (millimeter)

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

Parameter	Symbol	Value	Unit	
Repetitive Peak Reverse Voltage	V_{RRM}	200	V	
Working Peak Reverse Voltage	V_{RWM}	180	V	
Reverse Voltage	V_R	200	V	
Average Rectified Forward Current	$I_{F(AV)}$	200	mA	
Non-Repetitive Peak Forward Surge Current	I_{FSM}	$t=1\text{s}$	1	A
		$t=1\text{ms}$	2	
Power Dissipation	P_D	350	mW	
Thermal Resistance from Junction to Ambient (Note 1)	$R_{\theta JA}$	357	$^\circ\text{C}/\text{W}$	
Junction Temperature	T_J	150	$^\circ\text{C}$	
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$	

Note:

1. Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$I_R=5\mu\text{A}$	$V_{(BR)R}$	200	-	-	V
Forward voltage	$I_F=1\text{mA}$	V_F	-	-	0.75	V
	$I_F=10\text{mA}$		-	-	0.85	
	$I_F=50\text{mA}$		-	-	0.95	
	$I_F=100\text{mA}$		-	-	1.10	
	$I_F=200\text{mA}$		-	-	1.30	
	$I_F=300\text{mA}$		-	-	1.50	
Reverse Current	$V_R=180\text{V}, T_J=25^\circ\text{C}$	I_R	-	-	50	nA
	$V_R=180\text{V}, T_J=150^\circ\text{C}$		-	-	5	μA
Diode Capacitance	$V_R=0\text{V}, f=1\text{MHz}$	C_d	-	-	4	pF



MMBD1501AH THRU MMBD15005AH SWITCHING DIODES

RATINGS AND CHARACTERISTIC CURVES

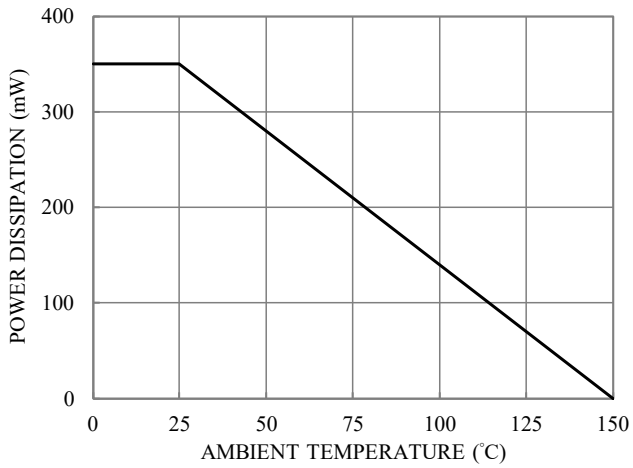


Fig.1-POWER DERATING CURVE

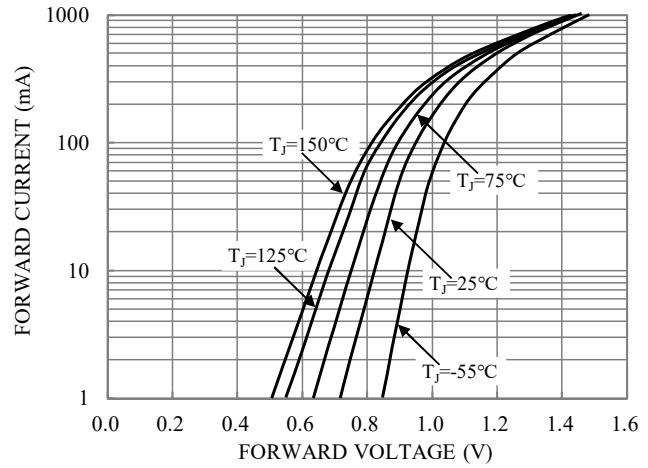


Fig.2-TYPICAL FORWARD CHARACTERISTICS

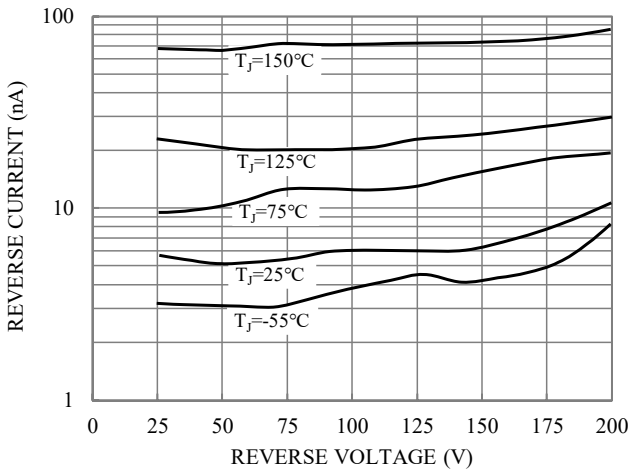


Fig.3-REVERSE CHARACTERISTICS

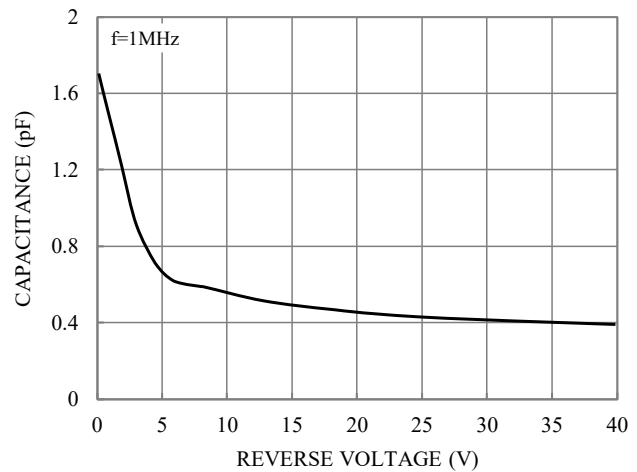
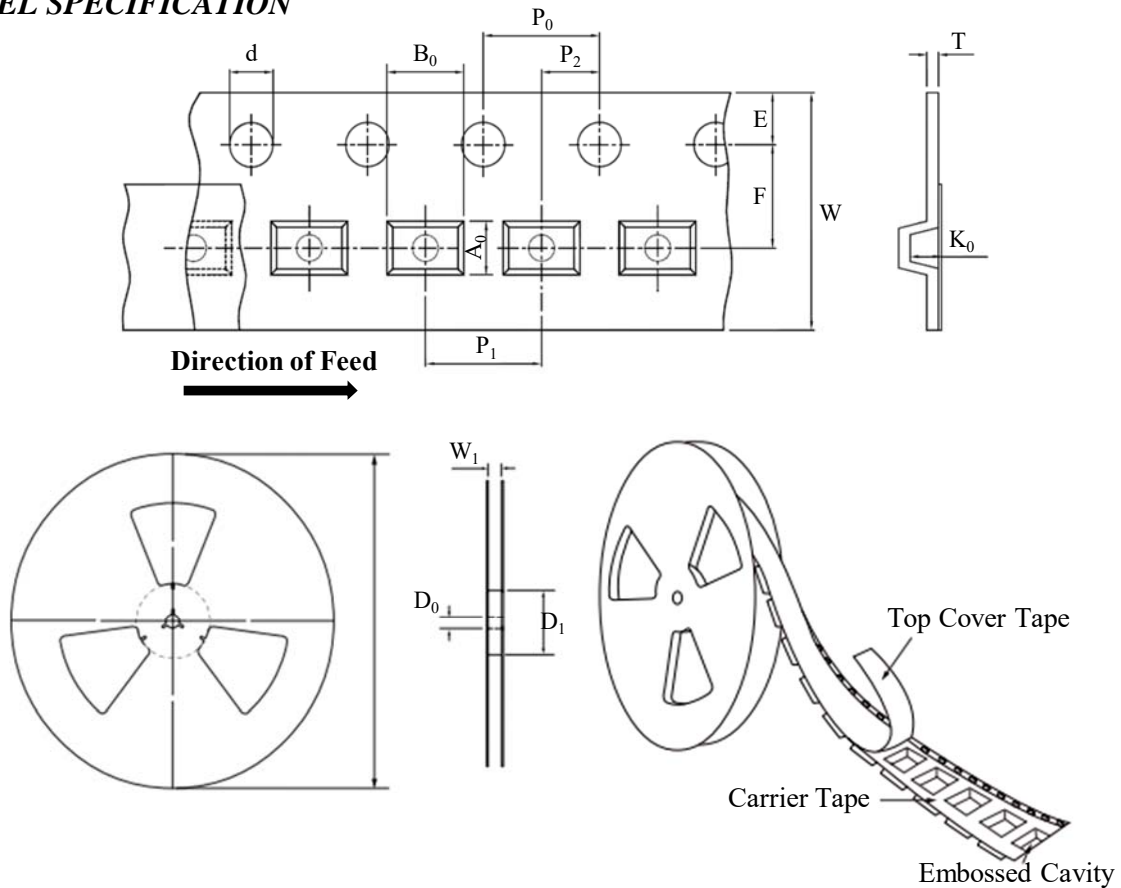


Fig.4-CAPACITANCE



MMBD1501AH THRU MMBD15005AH SWITCHING DIODES

TAPE & REEL SPECIFICATION



Item	Symbol	SOT-23
Carrier width	A_0	3.30 ± 0.10
Carrier length	B_0	3.00 ± 0.10
Carrier depth	K_0	1.70 ± 0.10
Sprocket hole	d	1.60 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D_0	13.00 ± 0.50
Reel inner diameter	D_1	MIN. 50.00
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocket hole pitch	P_0	4.00 ± 0.10
Punch hole pitch	P_1	4.00 ± 0.10
Embossment center	P_2	2.00 ± 0.10
Overall tape thickness	T	0.20 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W_1	MAX. 14.50

ORDER INFORMATION

Package	Reel Size	Quantity
SOT-23	7"	3,000

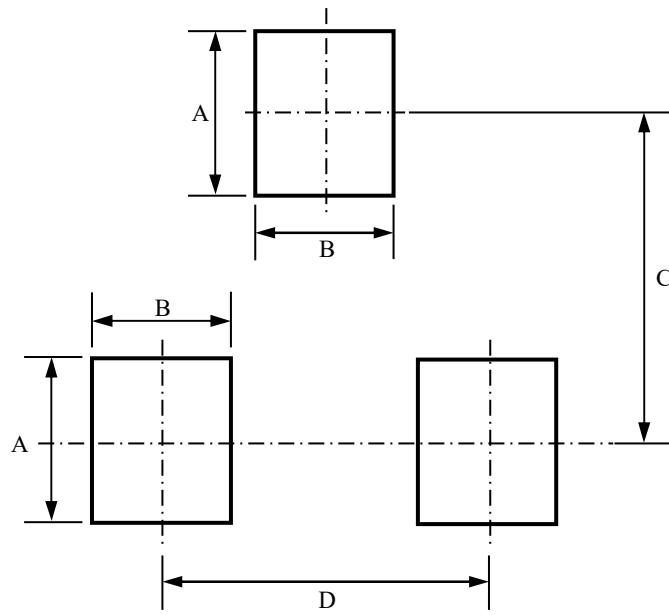
MARKING CODE

Part Number	Marking Code
MMBD1501AH	WA1
MMBD1503AH	WC1
MMBD1504AH	WD1
MMBD1505AH	WE1



MMBD1501AH THRU MMBD15005AH SWITCHING DIODES

SUGGESTED SOLDER PAD LAYOUT



Unit :mm

PACKAGE	A	B	C	D
SOT-23	1.00	0.80	2.00	1.90