

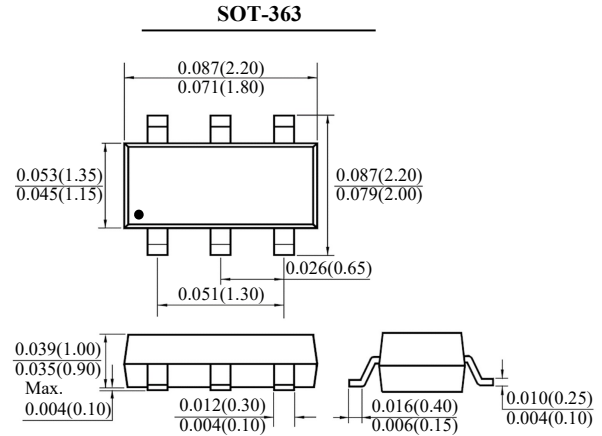
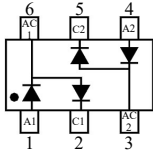


MMBD4448HSDWH

SWITCHING DIODES

FEATURES

- Fast Switching Speed
- Suffix "H" indicates Halogen-free parts, ex. MMBD4448HSDWH



Dimensions in inch and (millimeter)

Maximum Ratings@ $T_A = 25^\circ\text{C}$

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	80	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Repetitive Peak Forward Current	I_{FM}	300	mA
Non-Repetitive Peak Forward Surge Current at $t=1\mu\text{s}$	I_{FSM}	0.5	A
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient (Note 1)	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, 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@ $T_A = 25^\circ\text{C}$

Parameter	Conditions	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage	$I_R=100\mu\text{A}$	$V_{(BR)R}$	80	-	V
Forward Voltage	$I_F=5\text{mA}$	V_F	0.620	0.720	V
	$I_F=10\text{mA}$		-	0.855	
	$I_F=100\text{mA}$		-	1.000	
	$I_F=150\text{mA}$		-	1.250	
Reverse Current	$V_R=20\text{V}$	I_R	-	25	nA
	$V_R=80\text{V}$		-	100	nA
	$V_R=25\text{V}, T_J=150^\circ\text{C}$		-	30	μA
	$V_R=75\text{V}, T_J=150^\circ\text{C}$		-	50	μA
Total Capacitance	$V_R=0.5\text{V}, f=1\text{MHz}$	C_T	-	4	pF
Reverse Recovery Time	$I_F=10\text{mA}, V_R=6\text{V}, I_{tr}=0.1 \times I_R, R_L=100\Omega$	t_{rr}	-	4	ns



MMBD4448HSDWH

SWITCHING DIODES

RATINGS AND CHARACTERISTIC CURVES

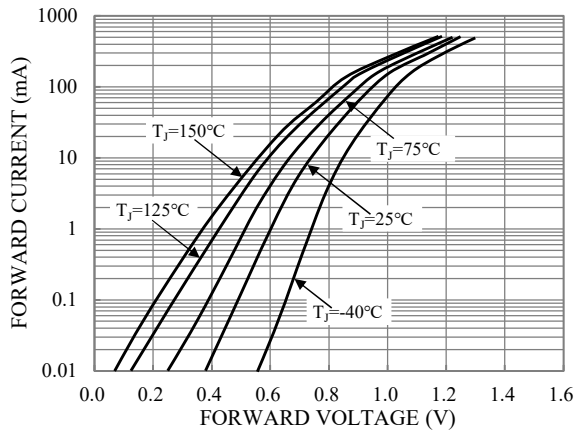


Fig.1-TYPICAL FORWARD CHARACTERISTICS

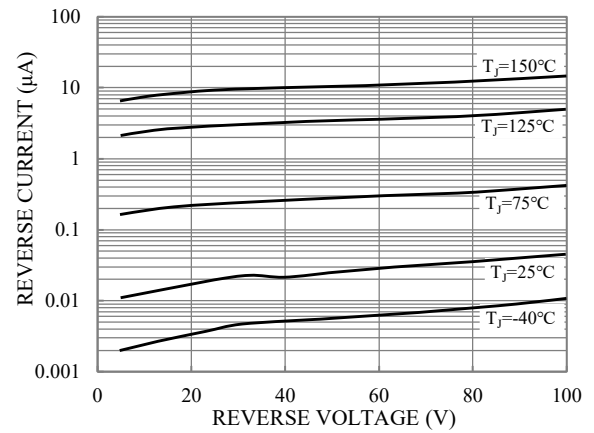


Fig.2-TYPICAL REVERSE CHARACTERISTICS

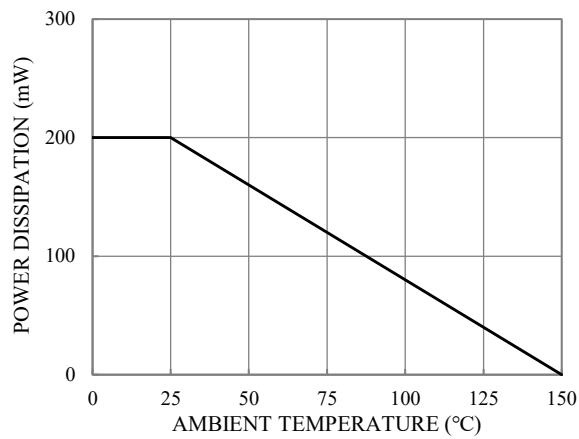


Fig.3-POWER DERATING CURVE

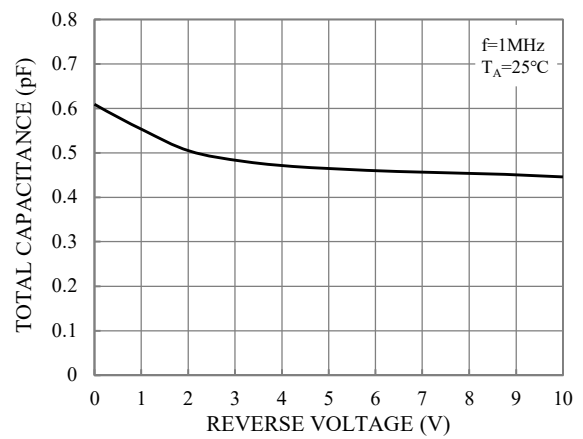


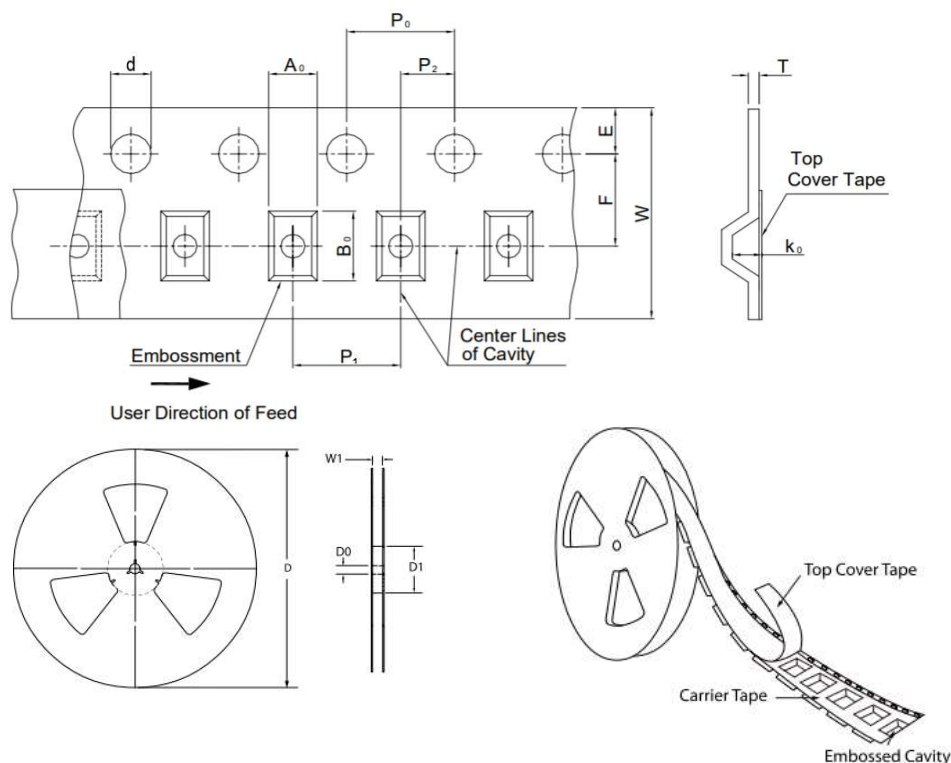
Fig.4-TOTAL CAPACITANCE



MMBD4448HSDWH

SWITCHING DIODES

TAPE & REEL SPECIFICATION



Item	Symbol	SOT-363
Carrier width	A ₀	2.40 ± 0.10
Carrier length	B ₀	2.40 ± 0.10
Carrier depth	K ₀	1.30 ± 0.10
Sprocket hole	d	1.50 ± 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	MAX. 0.60
Tape width	W	8.00 ± 0.30
Reel width	W ₁	MAX. 10.00

ORDER INFORMATION

Package	Reel Size	Quantity
SOT-363	7"	3,000

MARKING CODE

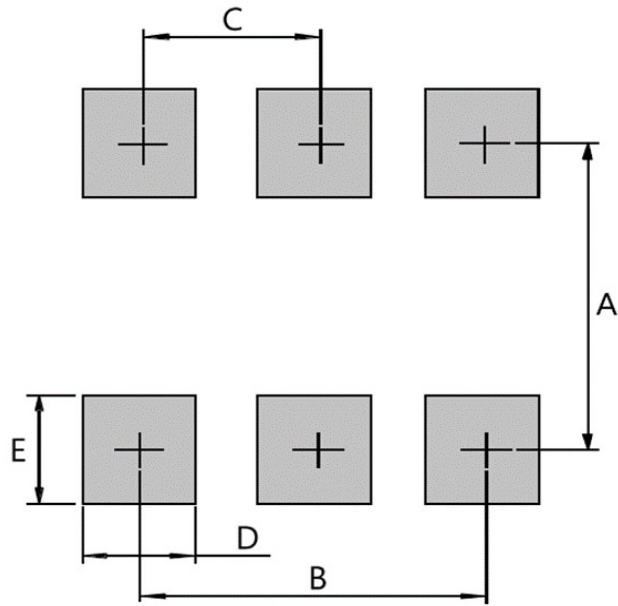
Part Number	Marking Code
MMBD4448HSDWH	KB



MMBD4448HSDWH

SWITCHING DIODES

SUGGESTED SOLDER PAD LAYOUT



Unit : mm

PACKAGE	A	B	C	D	E
SOT-363	1.90	1.30	0.65	0.42	0.60