

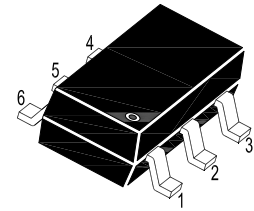
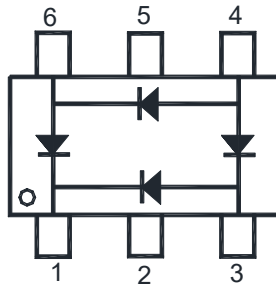
MMBD50BRD

Silicon Epitaxial Planar Switching Diode Array

Fast Switching Diode

Features

- Bridge configuration
- High-speed switching diode



1. Cathode 2. N.C. 3. Cathode
4. Anode 5. N.C. 6. Anode
SOT-26 Plastic package

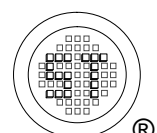
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	70	V
Reverse Voltage	V_R	70	V
Average Rectified Forward Current	$I_{F(AV)}$	140	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	2 1	A
		$t = 1 \mu\text{s}$	
		$t = 1 \text{ s}$	
Power Dissipation	P_D	250	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient ¹⁾	$R_{\theta JA}$	500	$^\circ\text{C/W}$

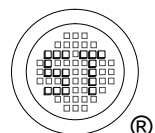
¹⁾ Device mounted on FR-4 substrate PC board, with minimum recommended pad layout.



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Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_{(BR)R}$	70	-	V
Forward Voltage at $I_F = 100 \text{ mA}$	V_F	-	1.3	V
Reverse Leakage Current at $V_R = 50 \text{ V}$ at $V_R = 50 \text{ V}$, $T_j = 150^\circ\text{C}$	I_R	- -	0.2 100	μA μA
Total Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$	C_T	-	2	pF
Reverse Recovery Time at $I_F = 10 \text{ mA}$, $I_{rr} = 0.1 \times I_R$, $V_R = 6 \text{ V}$, $R_L = 100 \Omega$	t_{rr}	-	4	ns



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Electrical Characteristics Curves

Fig 1. Power Derating Curve

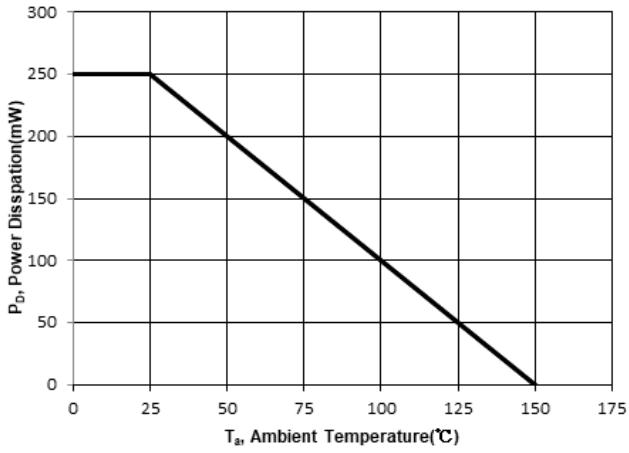


Fig 2. Total Capacitance Characteristics

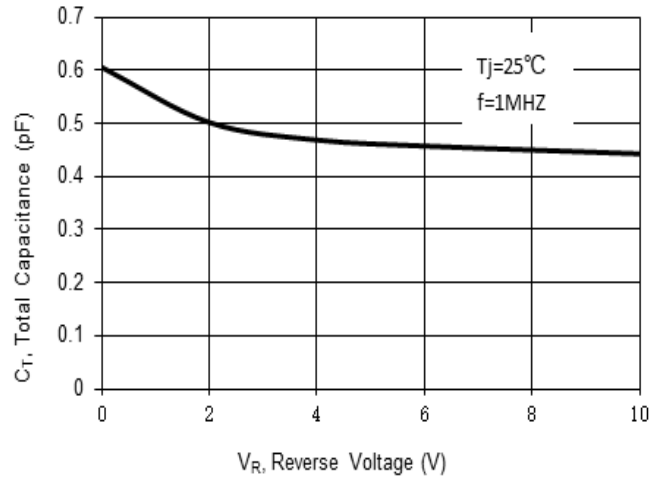


Fig 3. Reverse Characteristics

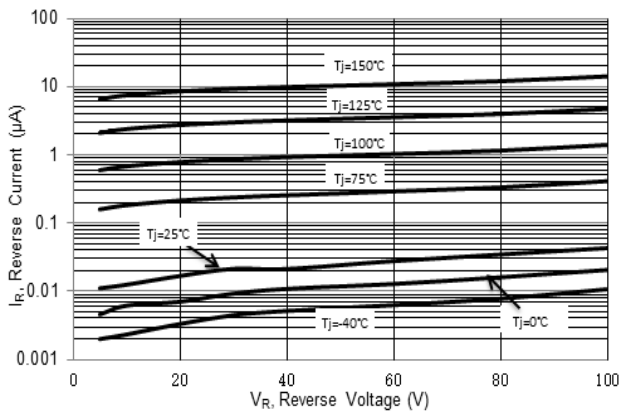
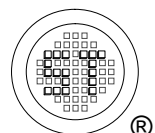
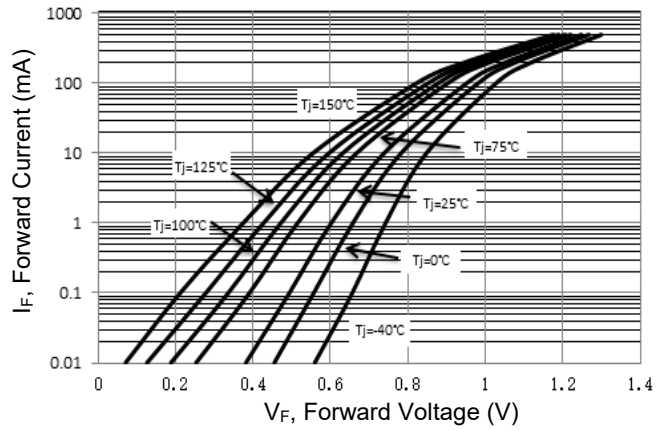


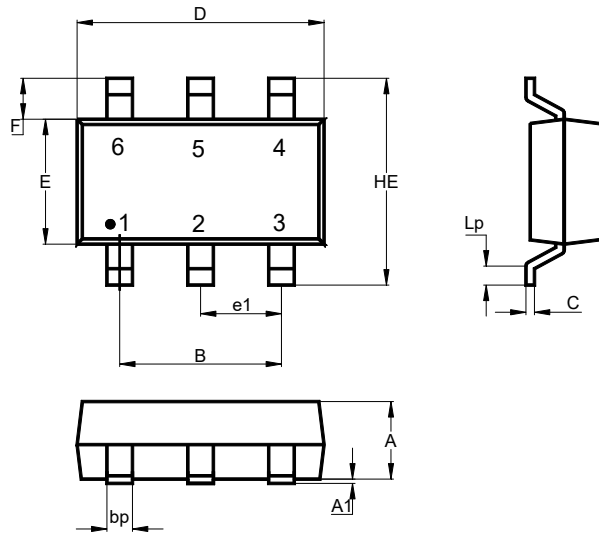
Fig 4. Forward Characteristics



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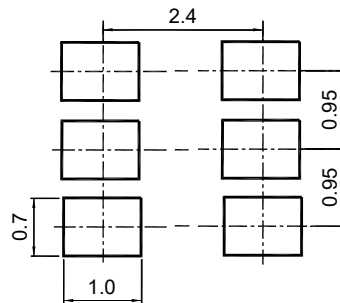
Package Outline (Dimensions in mm)

SOT-26



Unit	A	A1	B	C	D	E	e1	F	HE	Lp	bp
mm	1.2	0.1	2.1	0.20	3.1	1.7	0.95	0.65	3.0	0.6	0.5
	1.0	0	1.7	0.08	2.7	1.3	typ.	0.6	2.6	0.2	0.3

Recommended Soldering Footprint

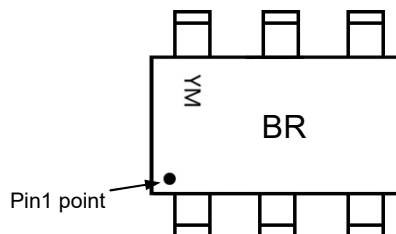


Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-26	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

"BR" = Part No.
 "YM" = Date Code Marking
 "Y" = Year
 "M" = Month
 Font type: Arial



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