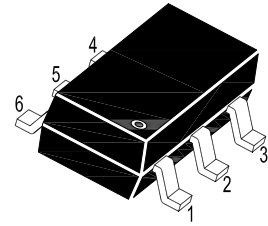


MMBD3SGD,MMBD4CAD,MMBD4CCD,MMBD4SED

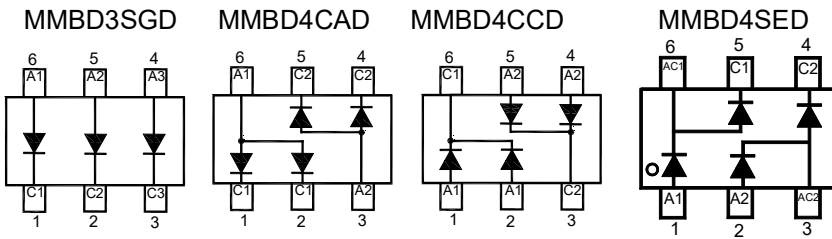
Silicon Epitaxial Planar Switching Diode



SOT-26 Plastic package

Application

- Ultra high speed switching



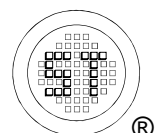
Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	V_{RM}	80	V
Reverse Voltage	V_R	80	V
Average Forward Current	$I_{F(AV)}$	100	mA
Maximum Peak Forward Current	I_{FM}	300	mA
Non-repetitive Peak Forward Surge Current ($t = 1\text{ }\mu\text{s}$)	I_{FSM}	4	A
Power Dissipation	P_d	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient ¹⁾	$R_{\theta JA}$	625	$^\circ\text{C/W}$

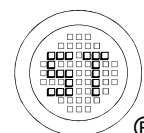
¹⁾ Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.



MMBD3SGD,MMBD4CAD,MMBD4CCD,MMBD4SED

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

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{BR(R)}$	80	-	V
Forward Voltage at $I_F = 100\text{ mA}$	V_F	-	1.2	V
Reverse Current at $V_R = 70\text{ V}$	I_R	-	0.1	μA
Total Capacitance at $V_R = 6\text{ V}$, $f = 1\text{ MHz}$	C_T	-	3.5	pF
Reverse Recovery Time at $I_F = 10\text{ mA}$, $I_{rr} = 0.1 \times I_R$, $V_R = 6\text{ V}$, $R_L = 100\text{ }\Omega$	t_{rr}	-	4	ns



MMBD3SGD,MMBD4CAD,MMBD4CCD,MMBD4SED

Electrical Characteristics Curves

Fig 1. Power Derating Curve

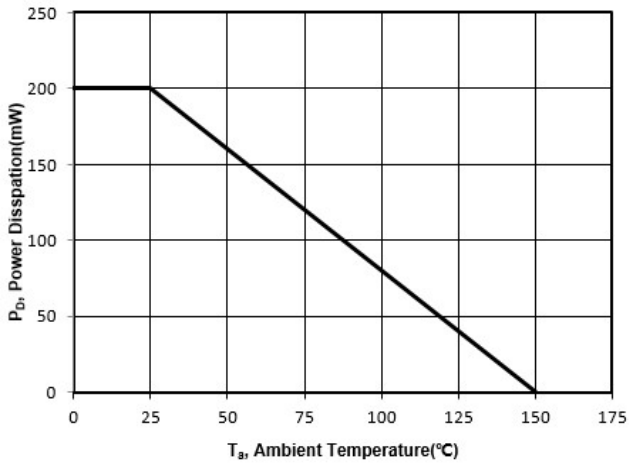


Fig 2. Total Capacitance vs. Reverse Voltage

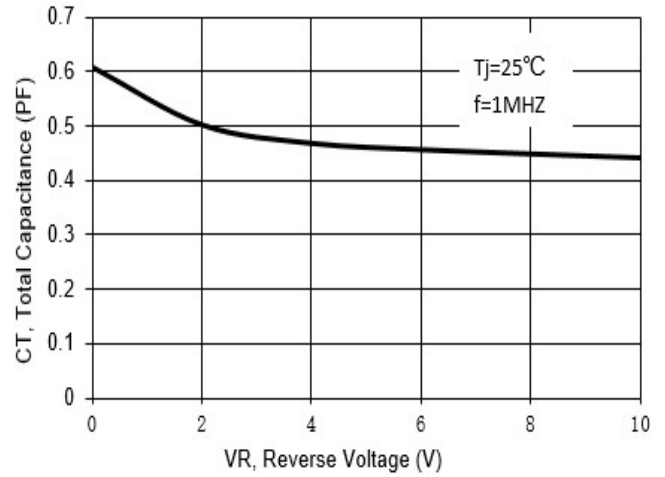


Fig 3. Reverse Current vs. Reverse Voltage

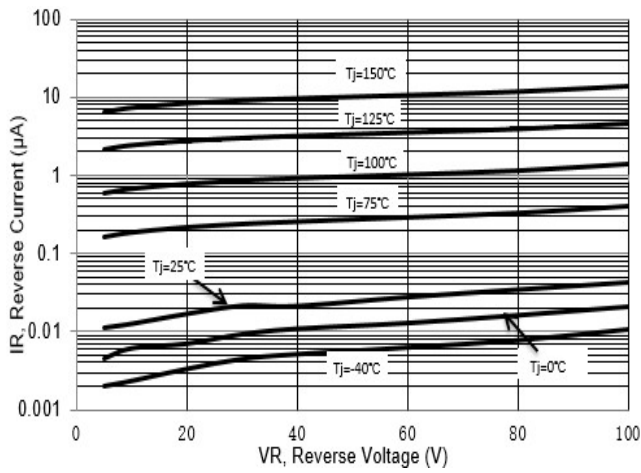
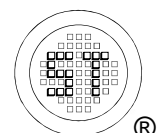
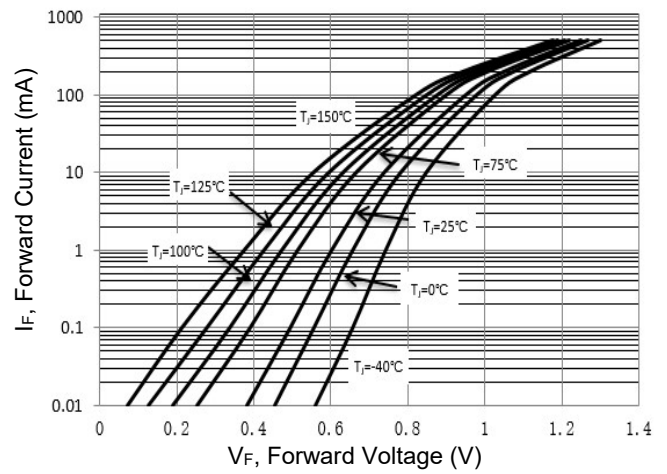


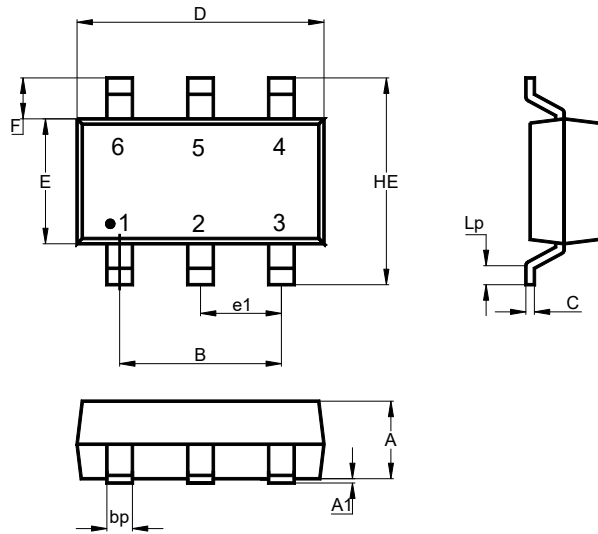
Fig 4. Forward Characteristics



MMBD3SGD,MMBD4CAD,MMBD4CCD,MMBD4SED

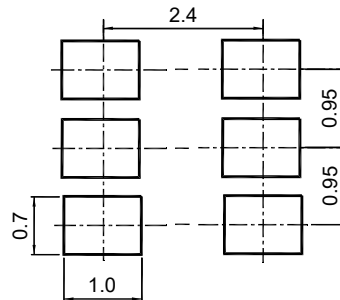
Package Outline (Dimensions in mm)

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



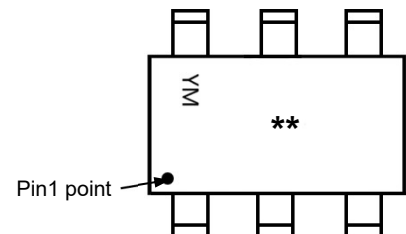
Packing information

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

"**" = Part No.

Product Model	MarkingCode	Product Model	MarkingCode
MMBD3SGD	SL	MMBD4CCD	SN
MMBD4CAD	SM	MMBD4SED	4D



"YM" = Date Code Marking

"Y" = Year

"M" = Month

Font type: Arial

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