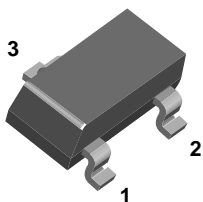


## MMBD1401 / 1403 / 1404 / 1405



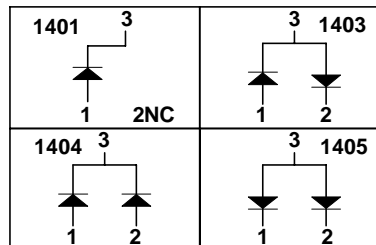
SOT-23



**MARKING**

MMBD1401	29	MMBD1403	32
MMBD1404	33	MMBD1405	34

**Connection Diagrams**



### Small Signal Diodes

#### Absolute Maximum Ratings\*

$T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Value	Units
$V_{RRM}$	Maximum Repetitive Reverse Voltage	200	V
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
$I_{FSM}$	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond	1.0 2.0	A A
$T_{stg}$	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	150	$^\circ\text{C}$

\* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

**NOTES:**

- 1) These ratings are based on a maximum junction temperature of 150 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

#### Thermal Characteristics

Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	$^\circ\text{C/W}$

#### Electrical Characteristics

$T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
$V_R$	Breakdown Voltage	$I_R = 100 \mu\text{A}$	200		V
$V_F$	Forward Voltage	$I_F = 10 \text{ mA}$ $I_F = 50 \text{ mA}$ $I_F = 200 \text{ mA}$ $I_F = 300 \text{ mA}$	760	800 920 1.0 1.1	mV mV V V
$I_R$	Reverse Current	$V_R = 120 \text{ V}$ $V_R = 175 \text{ V}$		40 100	nA nA
$C_T$	Total Capacitance	$V_R = 0, f = 1.0 \text{ MHz}$		2.0	pF
$t_{rr}$	Reverse Recovery Time	$I_F = I_R = 30 \text{ mA}, I_{RR} = 3.0 \text{ mA}, R_L = 100 \Omega$		50	ns

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E <sup>2</sup> CMOS <sup>™</sup>	ISOPLANAR <sup>™</sup>	QFET <sup>™</sup>	SuperSOT <sup>™</sup> -8	
EnSigna <sup>™</sup>	LittleFET <sup>™</sup>	QS <sup>™</sup>	SyncFET <sup>™</sup>	
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