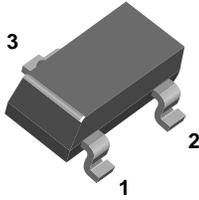
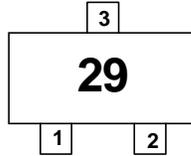




# MMBD1401 / 1403 / 1404 / 1405



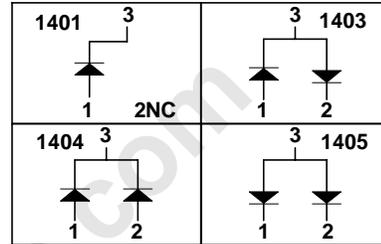
SOT-23



**MARKING**

MMBD1401	29	MMBD1403	32
MMBD1404	33	MMBD1405	34

**Connection Diagrams**



## Small Signal Diodes

### Absolute Maximum Ratings\* T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	200	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	200	mA
I <sub>FSM</sub>	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond	1.0 2.0	A A
T <sub>stg</sub>	Storage Temperature Range	-55 to +150	°C
T <sub>J</sub>	Operating Junction Temperature	150	°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 <sub>D</sub>	Power Dissipation	350	mW
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient	357	°C/W

### Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
V <sub>R</sub>	Breakdown Voltage	I <sub>R</sub> = 100 μA	200		V
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> = 10 mA I <sub>F</sub> = 50 mA I <sub>F</sub> = 200 mA I <sub>F</sub> = 300 mA	760	800 920 1.0 1.1	mV mV V V
I <sub>R</sub>	Reverse Current	V <sub>R</sub> = 120 V V <sub>R</sub> = 175 V		40 100	nA nA
C <sub>T</sub>	Total Capacitance	V <sub>R</sub> = 0, f = 1.0 MHz		2.0	pF
t <sub>rr</sub>	Reverse Recovery Time	I <sub>F</sub> = I <sub>R</sub> = 30 mA, I <sub>RR</sub> = 3.0 mA, R <sub>L</sub> = 100 Ω		50	ns

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EcoSPARK <sup>™</sup>	I <sup>2</sup> C <sup>™</sup>	PowerTrench <sup>®</sup>	SuperSOT <sup>™</sup> -6	
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>	
FACT <sup>™</sup>	MicroFET <sup>™</sup>	QT Optoelectronics <sup>™</sup>	TinyLogic <sup>™</sup>	
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