

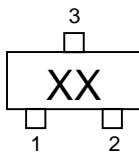


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MMBD1401
MMBD1403
MMBD1404
MMBD1405

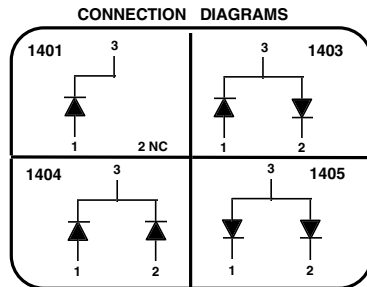
Features

- Low Current Leakage
- Available in a Surface Mount Package
- High Reverse Voltage



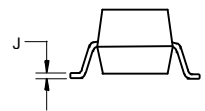
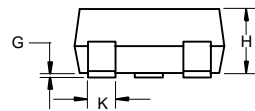
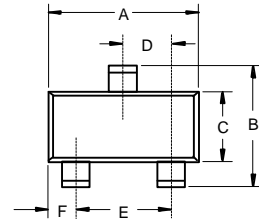
MARKING

MMBD1401 29 MMBD1404 33
 MMBD1403 32 MMBD1405 34



High Voltage General Purpose Diode

SOT-23



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.098	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

Maximum Ratings

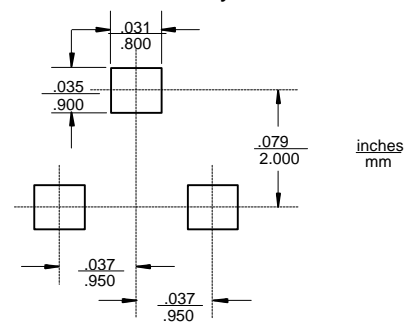
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 357°C/W Junction To Ambient

Working Inverse Voltage	W_{IV}	175	V
Average Rectified Current	$I_{F(AV)}$	200	mA
DC Forward Current	I_{FM}	600	mA
Recurrent Peak Forward Current	I_{FRM}	700	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	1.0	A
Pulse width = 1.0second			
Pulse width = 1.0 microsecond			
Total Device Power Dissipation Derate above 25°C	P_D	350	mW mW/°C

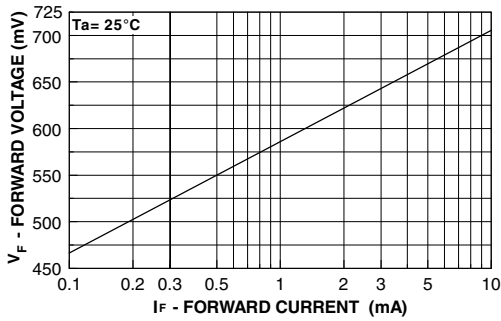
Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Min	Max	Test Condition
Breakdown Voltage	V_R	200V		$I_R=100\mu A$
Instantaneous Reverse Current	V_{FM}	760 mV	850mV 950mV 1.3V 1.5V	$I_F=10mA$ $I_F=50mA$ $I_F=200mA$ $I_F=300mA$
Maximum Instantaneous Reverse Current	I_R		40nA 100nA	$V_R=120V$ $V_R=175V$
Junction Capacitance	C_O		2.0pF	Measured at 1.0MHz, $V_R=0V$
Reverse Recovery Time	T_{rr}		50nS	$I_F=I_R=30mA$ $I_{RR}=1.0mA$ $R_L=100 OHM$

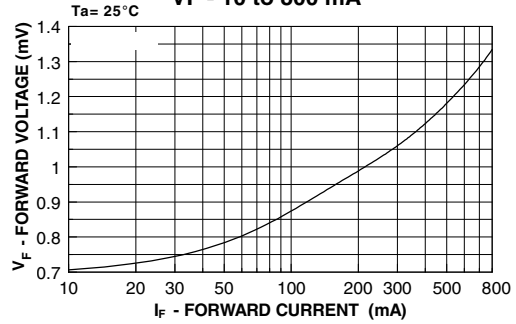
Suggested Solder Pad Layout



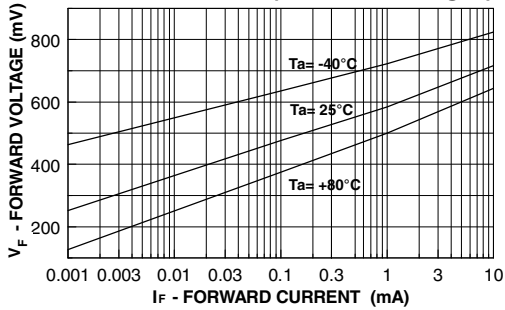
FORWARD VOLTAGE vs FORWARD CURRENT
VF - 0.1 to 10 mA



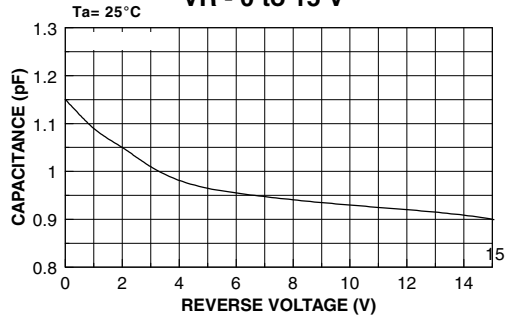
FORWARD VOLTAGE vs FORWARD CURRENT
VF - 10 to 800 mA



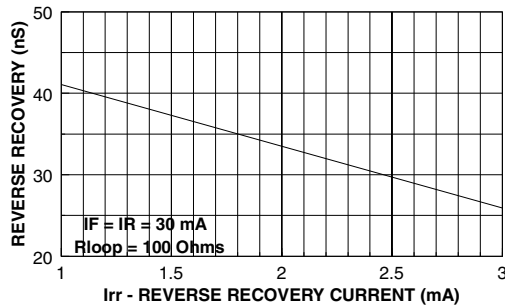
Forward Voltage vs Ambient Temperature
VF - 1.0 uA - 10 mA (-40 to + 80 Deg C)



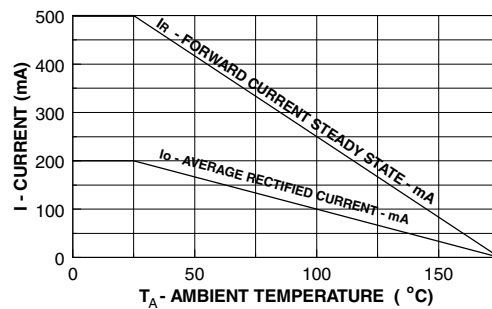
CAPACITANCE vs REVERSE VOLTAGE
VR - 0 to 15 V



REVERSE RECOVERY TIME vs REVERSE RECOVERY CURRENT (Irr)



Average Rectified Current (Io) & Forward Current (IF) versus Ambient Temperature (TA)



POWER DERATING CURVE

