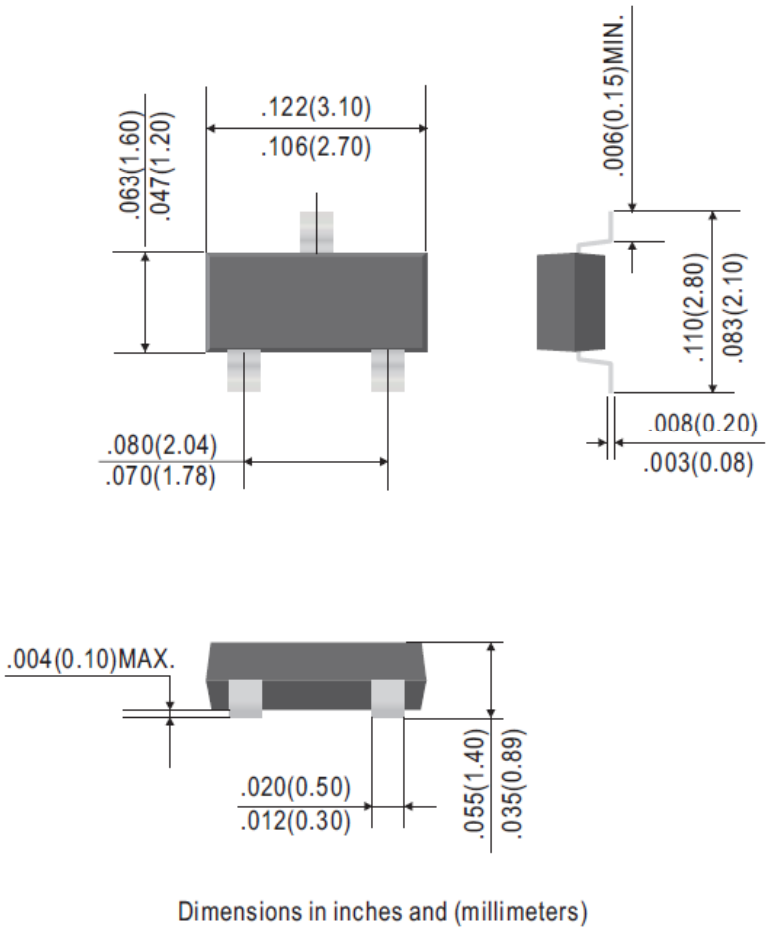
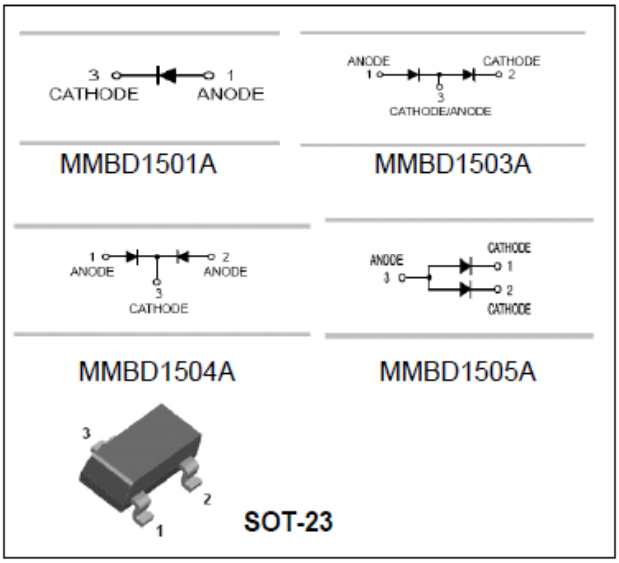
MMBD1501A~MMBD1505A

High Conductance Low Leakage Diode



Dimensions in inches and (millimeters)



FEATURES

·Two element incorporated into one package. (Emitter-coupled transistors)
·Reduction of the mounting area and assembly cost by one half.
·For general application
·Pb-Free package is available
·RoHS product for packing code suffix "G"
·Halogen free product for packing code suffix "H"
·Moisture Sensitivity Level 1

MARKING:

MMBD1501A	**A11**
MMBD1503A	**A13**
MMBD1504A	**A14**
MMBD1505A	**A15**

MMBD1501A~MMBD1505A

High Conductance Low Leakage Diode

Maximum Ratings (T_A=25°C unless otherwise specified)				
Characteristic		**Symbol**	**Value**	**Unit**
Reverse Voltage		V_R	200	V
Average Rectified Current		$V_{F(AV)}$	200	mA
Forward Continuous Current		I_{FM}	700	mA
Peak Forward Current	@t=1.0μs	I_{FSM}	1	A
	@t=1.0s		2	
Power Dissipation		P_D	350	mW
Thermal Resistance from Junction to Ambient		$R_{\theta JA}$	357	°C/W
Operating/ Junction and Storage Temperature Range		T_J, T_{STG}	-55~+150	°C

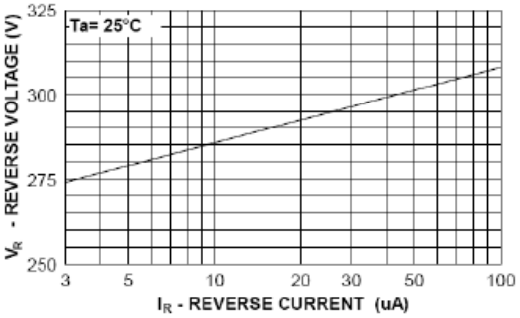
Electrical Characteristics (T_A=25°C unless otherwise specified)						
Characteristic	**Symbol**	**Test Condition**	**Min.**	**Typ.**	**Max.**	**Unit**
Reverse Breakdown Voltage	$V_{(BR)}$	I_R=5μA	200	—	—	V
Forward Voltage	V_F	I_F=1mA	—	—	0.75	V
		I_F=10mA	—	—	0.85	
		I_F=50mA	—	—	0.95	
		I_F=100mA	—	—	1.1	
		I_F=200mA	—	—	1.3	
		I_F=300mA	—	—	1.5	
Reverse Current	I_R	V_R=125V	—	—	1	nA
		V_R=180V	—	—	10	
Total Capacitance	C_T	V_R=0V, f=1.0MHZ	—	—	4	pF

MMBD1501A~MMBD1505A

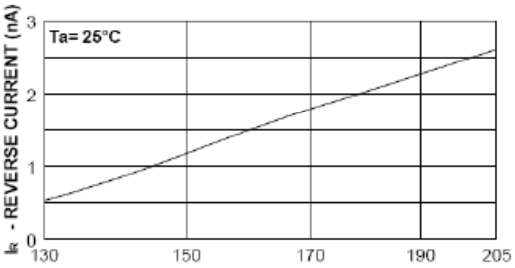
High Conductance Low Leakage Diode

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

REVERSE VOLTAGE vs REVERSE CURRENT
BV - 3.0 to 100 uA

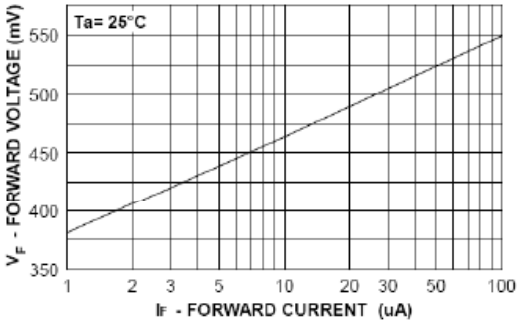


REVERSE CURRENT vs REVERSE VOLTAGE
IR - 130 - 205 Volts

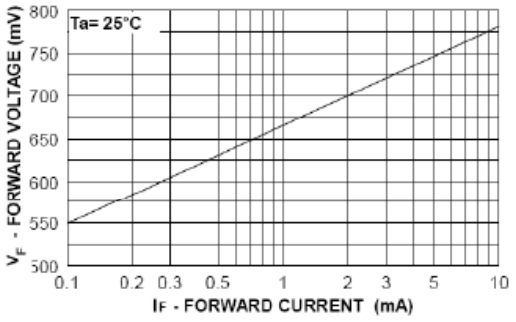


GENERAL RULE: The Reverse Current of a diode will approximately double for every ten (10) Degree C increase in Temperature

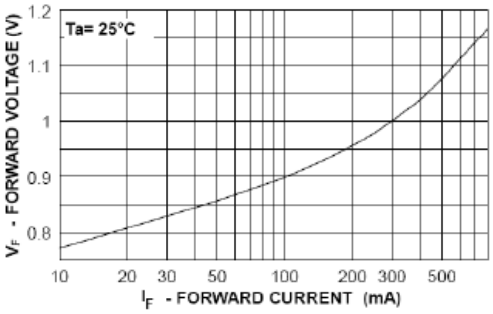
FORWARD VOLTAGE vs FORWARD CURRENT
VF - 1 to 100 uA



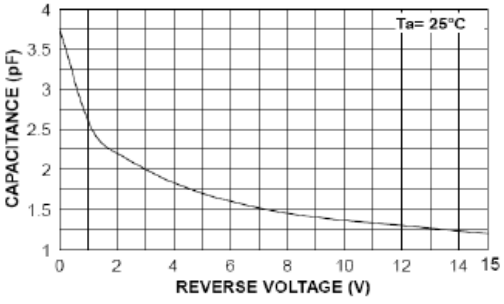
FORWARD VOLTAGE vs FORWARD CURRENT
VF - 0.1 to 10 mA



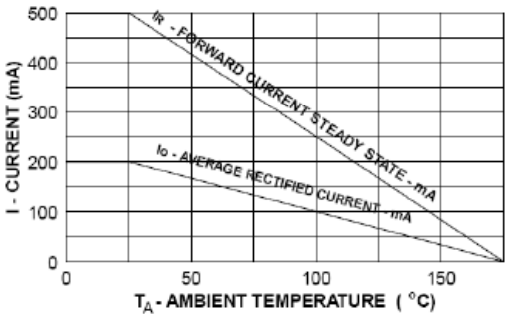
FORWARD VOLTAGE vs FORWARD CURRENT
VF - 10 to 800 mA



CAPACITANCE vs REVERSE VOLTAGE
VR - 0 to 15 V



Average Rectified Current (Io) & Forward Current (I_F) versus Ambient Temperature (T_A)



POWER DERATING CURVE