

High conductance low leakage diode

MMBD1501A/1503A/ 1504A/1505A

FEATURES

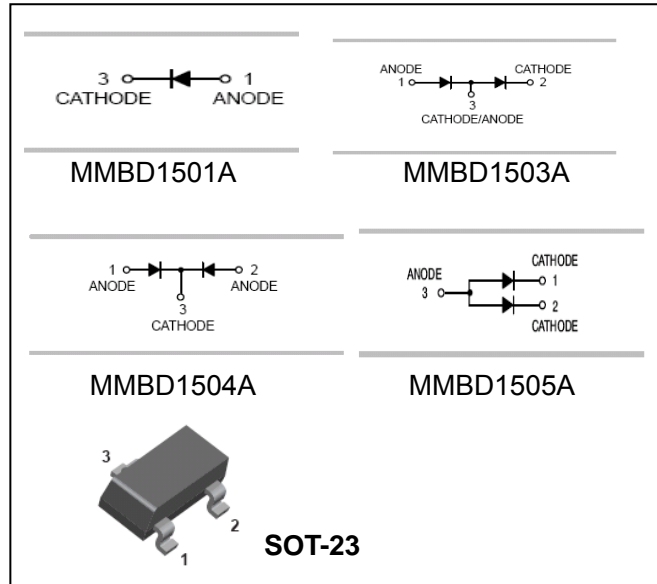
- Two element incorporated into one package.
(Emitter-coupled transistors)
- Reduction of the mounting area and assembly cost by one half.



APPLICATIONS

- For general application.

ORDERING INFORMATION



Type No.	Marking	Package Code
MMBD1501A	A11	SOT-23
MMBD1503A	A13	SOT-23
MMBD1504A	A14	SOT-23
MMBD1505A	A15	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Reverse Voltage	V_R	200	V
Average rectified current	$V_{F(AV)}$	200	mA
Forward Continuous Current	I_{FM}	600	mA
Peak forward current (1.0s) (1.0m)	I_{FSM}	1.0 2.0	A
Power Dissipation	P_d	350	mW
Thermal resistance, Junction to ambient	$R_{\theta JA}$	357	°C/W
Storage temperature	T_{STG}	-55-150	°C

High conductance low leakage diode

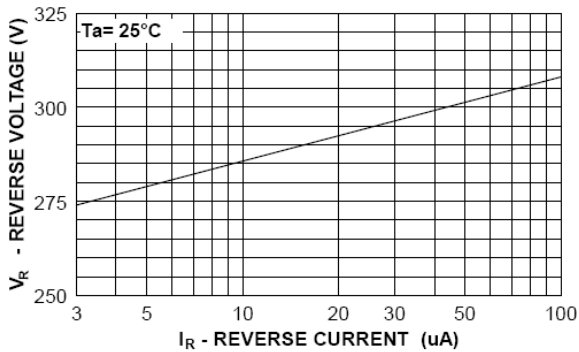
MMBD1501A/1503A/ 1504A/1505A

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

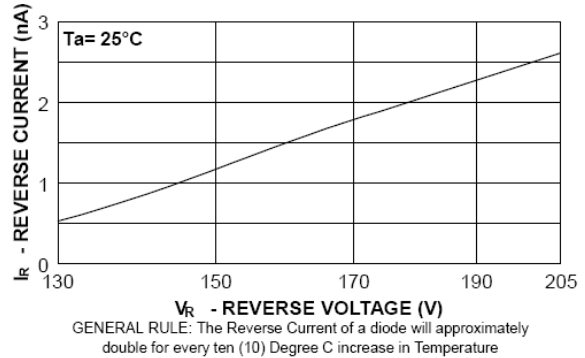
Parameter	Symbol	Min.	Max.	Unit	Test Conditions
Reverse Breakdown Voltage	$V_{(BR)R1}$	200		V	$I_R=5\mu A$
Forward voltage	V_F	0.62	0.72	V	$I_F=1mA$
		0.72	0.83		$I_F=10mA$
		0.8	0.89		$I_F=50mA$
		0.83	0.93		$I_F=100mA$
		0.87	1.1		$I_F=200mA$
		0.9	1.15		$I_F=300mA$
Reverse current	I_R		1.0 10	nA	$V_R=125V$ $V_R=180V$
Diode Capacitance	C_D		4	pF	$V_R=0V, f=1MHz$

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

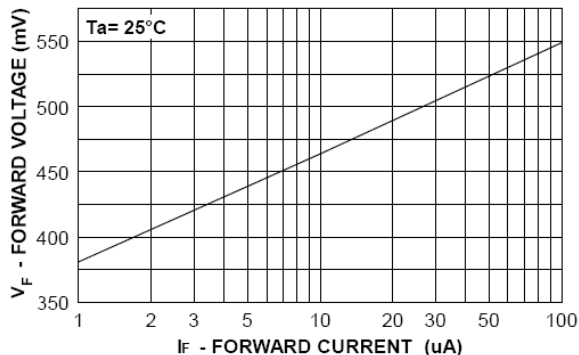
REVERSE VOLTAGE vs REVERSE CURRENT
BV - 3.0 to 100 uA



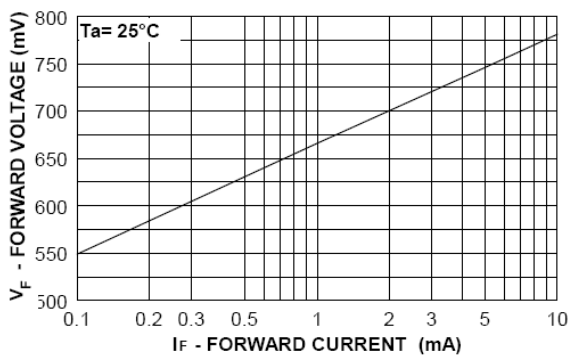
REVERSE CURRENT vs REVERSE VOLTAGE
IR - 130 - 205 Volts



FORWARD VOLTAGE vs FORWARD CURRENT
VF - 1 to 100 uA



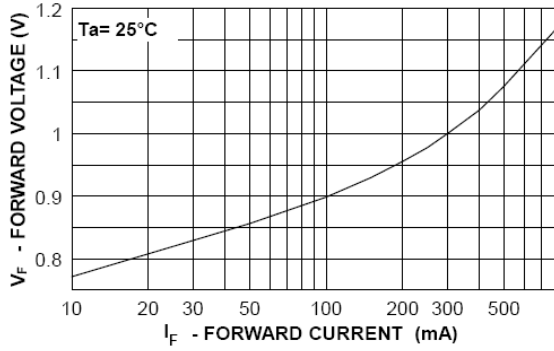
FORWARD VOLTAGE vs FORWARD CURRENT
VF - 0.1 to 10 mA



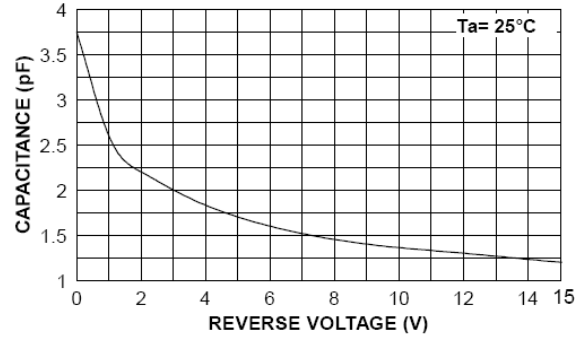
High conductance low leakage diode

MMBD1501A/1503A/ 1504A/1505A

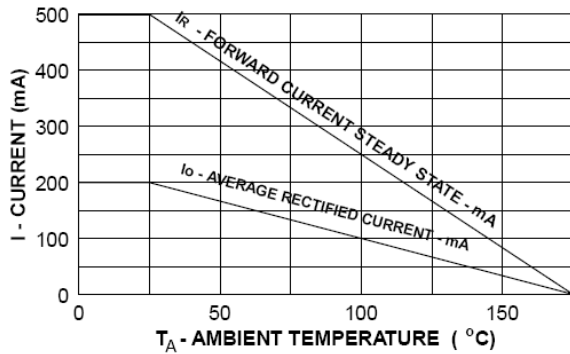
FORWARD VOLTAGE vs FORWARD CURRENT
VF - 10 to 800 mA



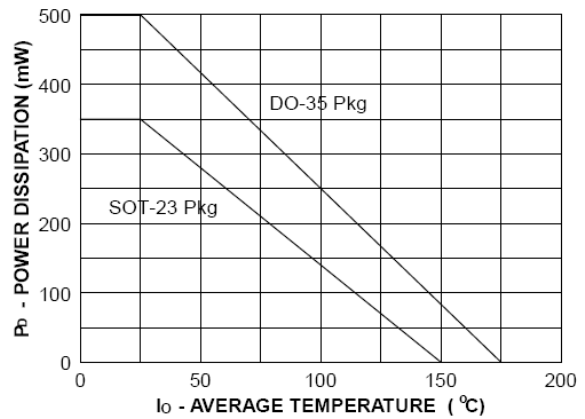
CAPACITANCE vs REVERSE VOLTAGE
VR - 0 to 15 V



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



POWER DERATING CURVE



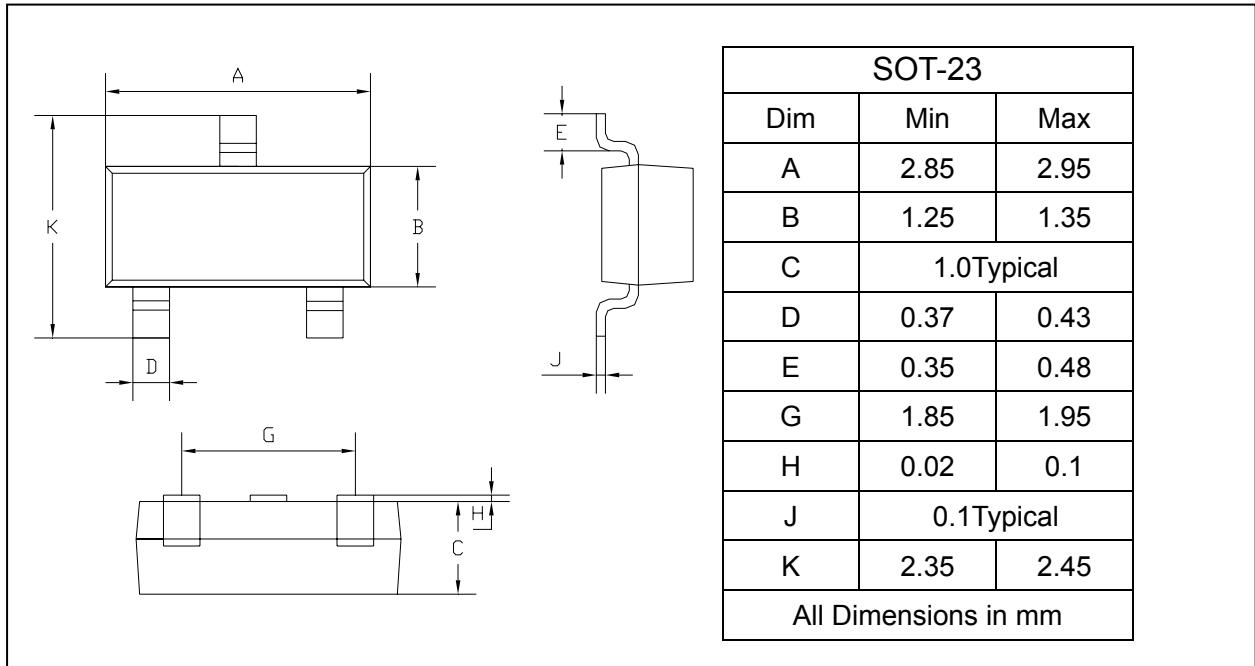
High conductance low leakage diode

**MMBD1501A/1503A/
1504A/1505A**

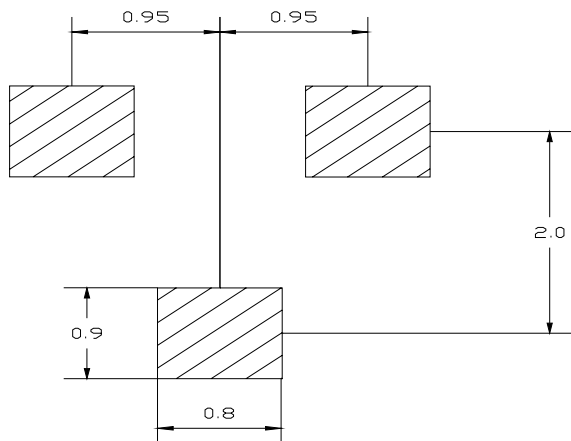
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
MMBD1501A/1503A/1504A/1505A	SOT-23	3000/Tape&Reel