

MMBD501

CASE 318-02/03, STYLE 8
SOT-23 (TO-236AA/AB)

HOT-CARRIER DIODE

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Reverse Voltage	V_R	50	Vdc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
*Total Device Dissipation, $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	350 2.8	mW mW/ $^\circ\text{C}$
Storage Temperature	T_{stg}	150	$^\circ\text{C}$
*Thermal Resistance Junction to Ambient	$R_{\theta JA}$	357	$^\circ\text{C/W}$

*Package mounted on 99.5% alumina 10 x 8 x 0.6 mm.

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted.)

Characteristic	Symbol	Min	Typ	Max	Unit
OFF CHARACTERISTICS					
Reverse Breakdown Voltage ($I_R = 10 \mu\text{Adc}$)	$V_{(BR)}$	50	—	—	Vdc
Reverse Voltage Leakage Current ($V_R = 25 \text{Vdc}$)	I_R	—	—	200	μAdc
Diode Capacitance ($V_R = 20 \text{Vdc}$, $f = 1.0 \text{MHz}$)	C_T	—	—	1.0	pF
Forward Voltage ($I_F = 10 \text{mAdc}$)	V_F	—	—	1.2	Vdc