

High Conductance Ultra Fast Diode

MMBD1201;MMBD1203

MMBD1204;MMBD1205

■ Features

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Value	Unit
Working Inverse Voltage	W_{IV}	50	V
Average Rectified Current	I_o	200	mA
DC Forward Current	I_F	600	mA
Recurrent Peak Forward Current	i_f	700	mA
Peak Forward Surge Current	$i_{f(\text{surge})}$	1.0	A
Pulse width = 1.0 second		2.0	A
Pulse width = 1.0 microsecond			
Storage Temperature Range	T_{stg}	-55 to + 150	$^\circ\text{C}$
Operating Junction Temperature	T_J	150	$^\circ\text{C}$
Total Device Dissipation	P_D	350	mW
Derate above 25°C		2.8	mW / $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	357	$^\circ\text{C} / \text{W}$

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■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Max	Unit
Breakdown voltage	B_V	$I_R = 100 \mu\text{A}$	100		V
Reverse current	I_R	$I_F = 20 \text{V}$		25	nA
		$I_F = 50 \text{V}$		50	nA
		$I_F = 50 \text{V}, T_A = 150^\circ\text{C}$		5	μA
Forward voltage	V_F	$I_F = 1.0 \text{mA}$	550	600	mV
		$I_F = 10 \text{mA}$	660	740	mV
		$I_F = 100 \text{mA}$	820	920	mV
		$I_F = 200 \text{mA}$	0.87	1.0	V
		$I_F = 300 \text{mA}$		1.1	V
Diode capacitance	C_D	$V_R = 0, f = 1.0 \text{MHz}$		2.0	pF
Reverse recovery time	T_{RR}	$I_F = I_R = 10 \text{mA}, I_{RR} = 1.0 \text{mA}, R_L = 100 \Omega$		4.0	ns

■ Marking

Type	MMBD1201	MMBD1203	MMBD1204	MMBD1205
Marking	24	26	27	28