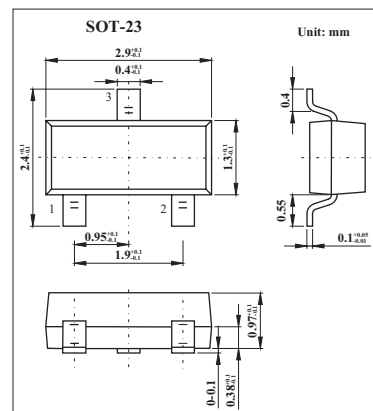


High Conductance Low Leakage Diode

MMBD1701/A,MMBD1703/A

MMBD1704/A,MMBD1705/A

■ Features

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

Parameter	Symbol	Value	Unit
Working Inverse voltage	W_{IV}	20	V
Average rectified current	I_O	50	mA
DC forward current	I_F	150	mA
recurrent peak forward current	i_F	150	mA
Peak forward surge current pulse width = 1.0 second	i_F	250	mA
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 $^\circ\text{C}$		2.8	mW/ $^\circ\text{C}$
Thermal resistance, Junction to ambient	$R_{\theta JA}$	357	$^\circ\text{C}/\text{W}$

MMBD1701/A /1703/A-1705/A*

* Device mounted on glass epoxy $1.6'' \times 1.6'' \times 0.06''$, mounting pad for collector lead min. 0.93in2.

MMBD1701/A,MMBD1703/A MMBD1704/A,MMBD1705/A

■ Electrical Characteristics Ta = 25 °C

Parameter	Symbol	Conditions	Min	Max	Unit
Breakdown voltage	BV	$I_R = 5.0 \mu A$	30		V
Reverse current	I_R	$I_F = 20 V$		50	nA
Forward voltage	V_F	$I_F = 10 \mu A$	420	500	mV
		$I_F = 100 \mu A$	520	610	mV
		$I_F = 1.0 mA$	640	740	mV
		$I_F = 10 mA$	760	880	mV
		$I_F = 20 mA$	810	950	mV
		$I_F = 50 mA$	0.89	1.1	V
Diode capacitance	C_D	$V_R = 0, f = 1.0 MHz$		1.0	pF
Reverse Recovery time	T_{RR}	$I_F = I_R = 10 mA, I_{RR} = 1.0 mA, R_L = 100 \Omega$		700	ps
MMBD1701-1705 MMBD1701A-1705A		$I_F = I_R = 10 mA, I_{RR} = 1.0 mA, R_L = 101 \Omega$		1.0	ns

■ Marking

Type	MMBD1701/A	MMBD1703/A	MMBD1704/A	MMBD1705/A
Marking	85/85A	87/87A	88/88A	89/89A