

Schottky Barrier Rectifiers

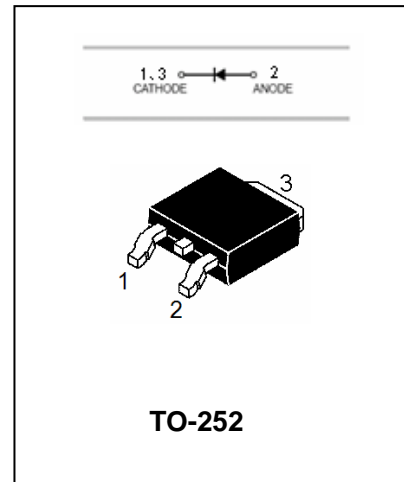
MBRD2020---MBRD20100

FEATURES

- High surge capacity.
- For use in low voltage,high frequency Inverters,free wheeling,and polarity protection applications.
- Metal silicon junction,majority carrier conduction.
- High current capacity,lowforward voltage drop.
- Guard ring for over voltage protection.



Lead-free



MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	MBR D2020	MBR D2030	MBR D2035	MBR D2040	MBR D2045	MBR D2050	MBR D2060	MBR D2080	MBR D20100	Unit
V_{RRM}	Recurrent Peak Reverse Voltage	20	30	35	40	45	50	60	80	100	V
V_{RMS}	RMS Voltage	14	21	25	28	32	35	42	56	70	V
V_{DC}	DC Blocking Voltage	20	30	35	40	45	50	60	80	100	V
$I_{F(AV)}$	Average Forward Total Device Rectified Current @ $T_A= 100^{\circ}C$	20									A
I_{FSM}	Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on rated load	150									A
$R_{\theta JC}$	Thermal Resistance (Note1)	2									$^{\circ}C/W$
$T_j T_{stg}$	Operating Junction and Storage Temperature Range	-55 to +150									$^{\circ}C$

Note:1.Thermal resistance from junction to case.



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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MBRD2020- MBRD2045	MBRD2050- MBRD2060	MBRD2080- MBRD20100	UNIT
			MAX			
Reverse Current	I_R	$V_R=V_{RRM}, T_A=25^\circ C$ $V_R=V_{RRM}, T_A=125^\circ C$	0.1 15	0.1 25	0.1 50	mA
Forward Voltage	V_F (Note1)	$I_F=20A, T_A=25^\circ C$	0.63	0.75	0.84	V

Note:1.Pulse test:300µs pulse width,1% duty cycle.

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

FIG.1 – PEAK FORWARD SURGE CURRENT

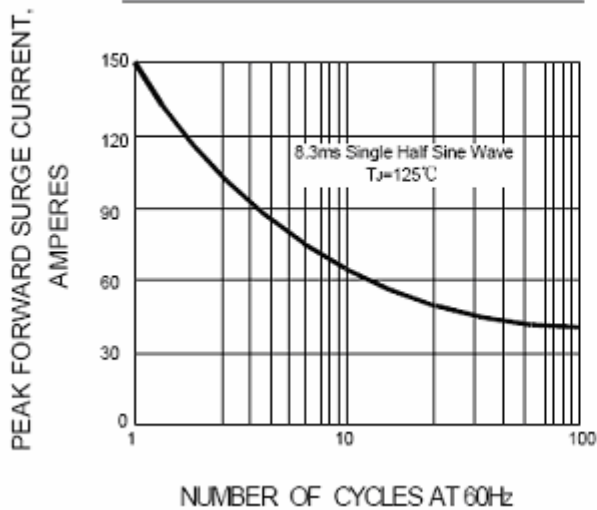
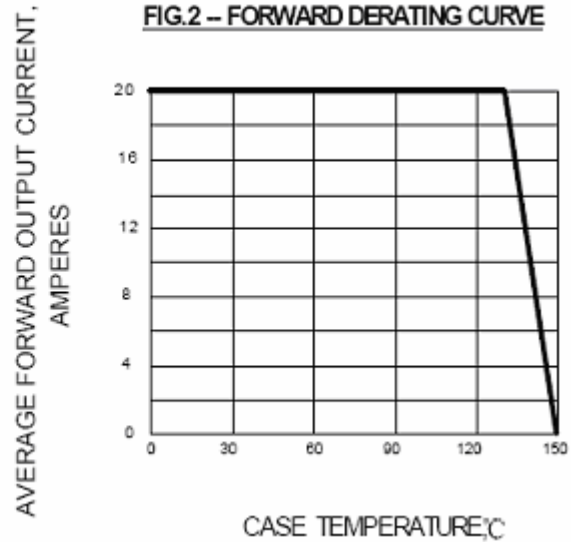


FIG.2 – FORWARD DERATING CURVE





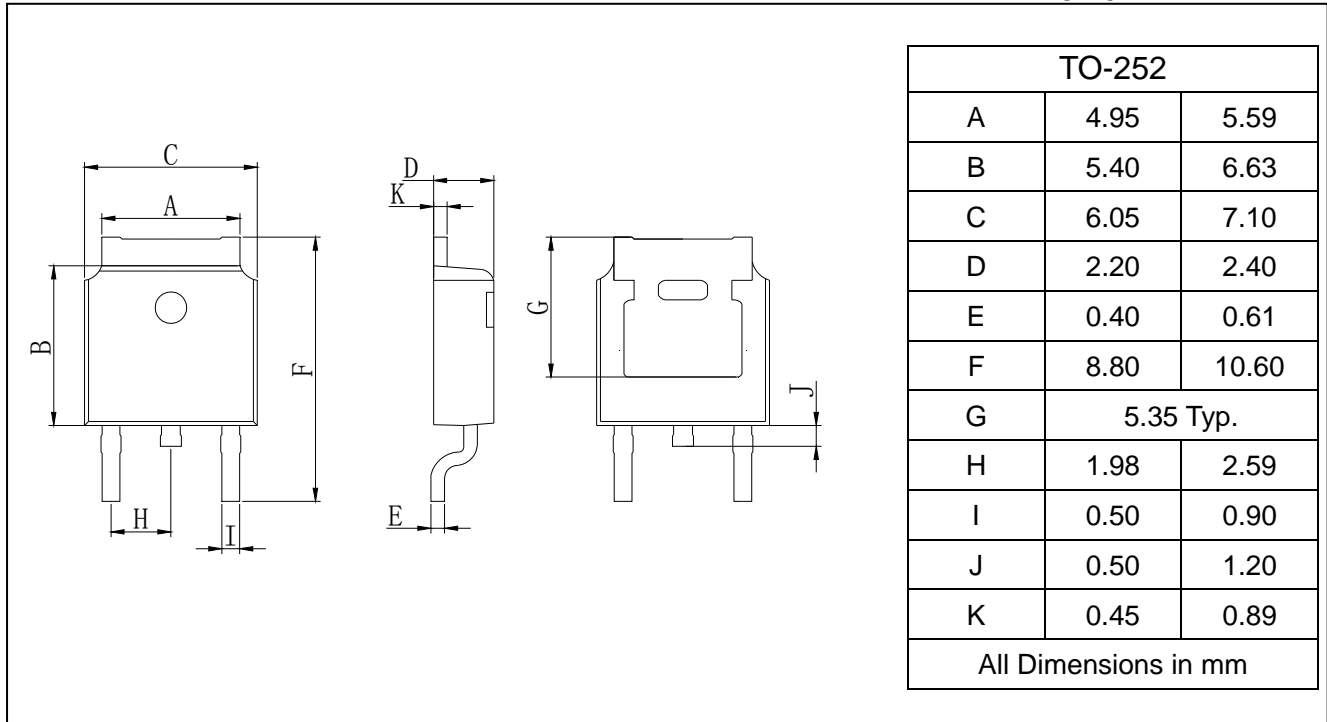
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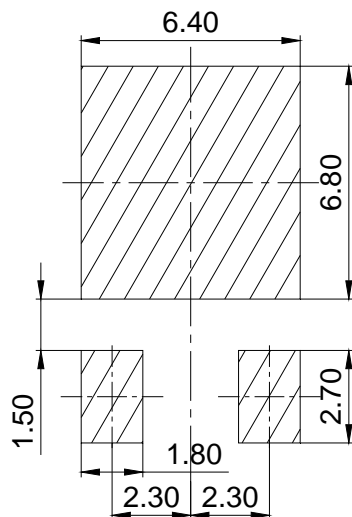
PACKAGE OUTLINE

Plastic surface mounted package

TO-252



SOLDERING FOOTPRINT



Unit:mm



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PACKAGE INFORMATION

Device	Package	Shipping
MBRD2020-MBRD20100	TO-252	80PCS/Tube
		2500PCS/Tape&Reel