MBR20200DF

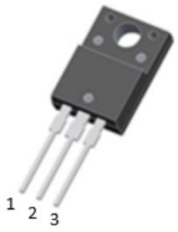
Description:

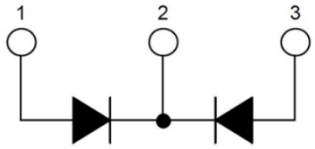
These diodes are optimized to get low forward voltage and low reverse leakage current. These devices are suited for high frequency switched mode power supplies.

Features:

- High ESD capability
- 150℃ operating junction temperature
- High frequency operation
- Low IR value
- High surge capacity

Product Summary	
V_R	200 V
$I_{F(AV)}$	2×10 A





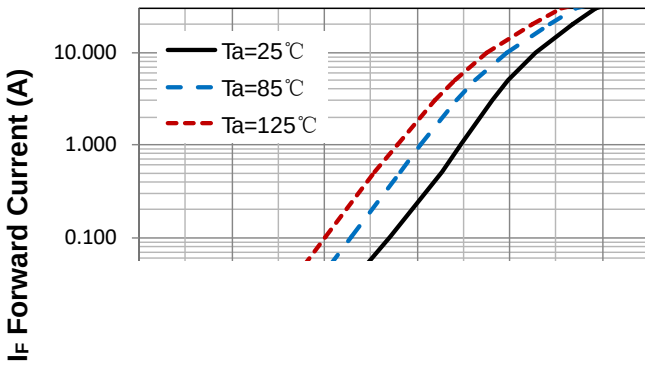
Applications:

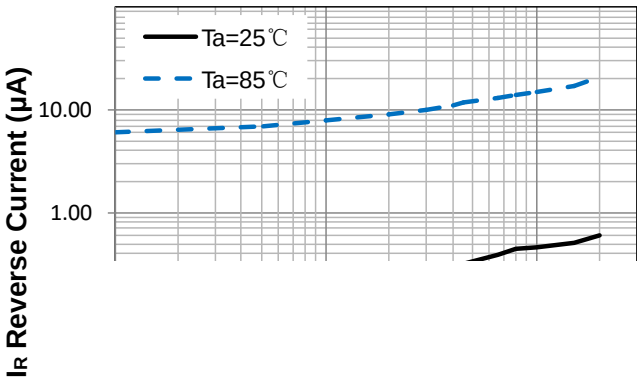
- Switched mode power supply

Absolute Maximum Ratings						
Parameter	**Symbol**	**Test Conditions**	**Values**			**Units**
Repetitive peak reverse voltage	V_{RRM}		200			V
Continuous forward current	$I_{F(AV)}$	T_A=110℃	20			A
Single pulse forward current	I_{FSM}	T_A=25℃	200			A
Maximum repetitive forward current	I_{FRM}	Square wave, 20kHZ	60			A
Operating junction	T_j		150			℃
Storage temperatures	T_{stg}		-55 to +150			℃
Electrical characteristics (Ta=25℃unless otherwise specified)						
Parameter	**Symbol**	**Test Conditions**	**Min.**	**Typ.**	**Max.**	**Units**
Breakdown voltage Blocking voltage	V_{BR} V_R	I_R=100μA	200			V
Forward voltage	V_F	I_F=5.0A		0.80	0.85	V
		I_F=10 A		0.86	0.93	
		I_F=5.0A, Tj =125℃		0.70	0.80	
		I_F=10 A, Tj =125℃		0.75	0.85	
Reverse leakage current	I_R	V_R= V_{RRM}			10	μA
		T_j=125℃, V_R=200V			2000	μA
Thermal characteristics						
Parameter	**Symbol**	**Typ**	**MAX**			**Units**
Junction-to-Case	R_{thJC}	-	4.0			℃/W

MBR20200DF

Typical Characteristics





V_F Forward Voltage (V)

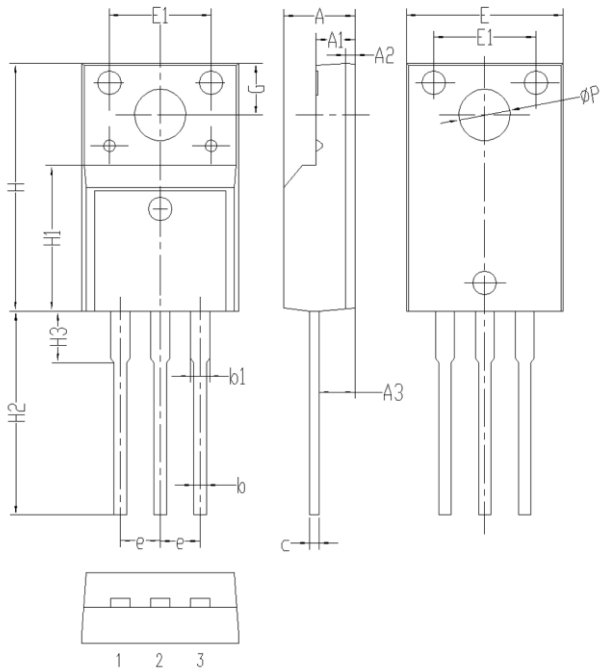
Figure 1. Forward Characteristic(typ.)

V_R Reverse Voltage (V)

Figure 2. Reverse Characteristic (typ.)

Package Information

TO-220F PACKAGE



Symbol	Dimensions(millimeters)	
	Min.	Max.
A	4.60	5.00
A1	2.40	2.80
A2	0.60	1.00
A3	2.50	2.90
b	0.70	0.90
b1	1.20	1.60
c	0.40	0.60
e	2.34	2.74
E	9.85	10.45
H	15.80	16.20
H1	9.00	9.40
H2	12.70	13.30
H3	3.10	3.50
C	2.80	3.20