

MBRF2060D - MBRF20200D
20.0AMPS Isolated Schottky Barrier Rectifier
ITO-220AB

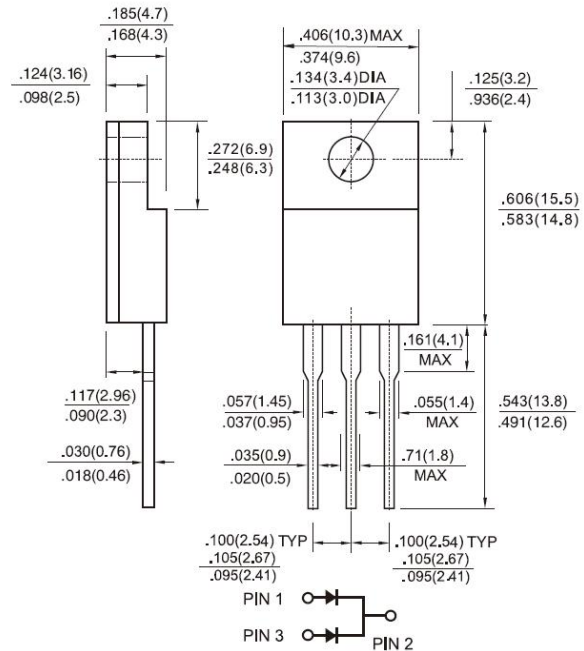


Features

- ✦ Plastic material used carries Underwriters Laboratory Classifications 94V-0
- ✦ Metal silicon junction, majority carrier conduction
- ✦ Low power loss, high efficiency
- ✦ High current capability, low forward voltage drop
- ✦ High Surge capability
- ✦ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- ✦ Guarding for overvoltage protection
- ✦ High temperature soldering guaranteed: 260°C/10 seconds, 0.25"(6.35mm) from case
- ✦ Green compound with suffix "G" on packing code & prefix "G" on datecode

Mechanical Data

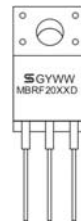
- ✦ Case: ITO-220AB molded plastic body
- ✦ Terminals: Pure tin plated, lead free, solderable per MIL-STD-750, Method 2026
- ✦ Polarity: As marked
- ✦ Mounting position: Any
- ✦ Mounting torque: 5 in-lbs. Max.
- ✦ Weight: 1.7 grams



Dimensions in inches and (millimeters)

Marking Diagram

MBRF20XXD = Specific Device Code
 G = Green compound
 Y = Year
 WW = Work Week



Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%

Type Number	Symbol	MBRF 2060D	MBRF 20100D	MBRF 20120D	MBRF 20150D	MBRF 20200D	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	60	100	120	150	200	V
Maximum RMS Voltage	V_{RMS}	42	70	84	105	140	V
Maximum DC blocking voltage	V_{DC}	60	100	120	150	200	V
Maximum Average Forward Rectified Current @Tc = 135°C (Total Device)	$I_{F(AV)}$	20					A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150					A
Peak Repetitive Reverse Surge Current	I_{RRM}	0.5					A
Maximum Instantaneous Forward Voltage at (Note 1) IF = 10A, TA=25°C IF = 10A, TA=125°C IF = 20A, TA=25°C IF = 20A, TA=125°C	V_F	0.80 0.70 0.95 0.85	0.85 0.75 0.95 0.85	0.90 0.80 1.00 0.90	0.95 0.85 1.05 0.95		V
Maximum Reverse Current at Rated DC Blocking Voltage TA=25 °C TA=125 °C	I_R	0.1 10	0.1 5		0.1 2		mA mA
Voltage rate of change (Rated V_R)	dV/dt	10,000					V/uS
Maximum Thermal Resistance Per Leg (Note 2)	$R_{\theta JC}$	1.5	3.5				°C/W
Operating Temperature Range	T_J	-65 to + 150					°C
Storage Temperature Range	T_{STG}	-65 to + 175					°C

Note1: Pulse Test : 300us Pulse Width, 1% Duty cycle
 Note2: Thermal Resistance from Junction to Case Per Leg

RATINGS AND CHARACTERISTIC CURVES (MBRF2060D THRU MBRF20200D)

