

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



RoHS
COMPLIANCE

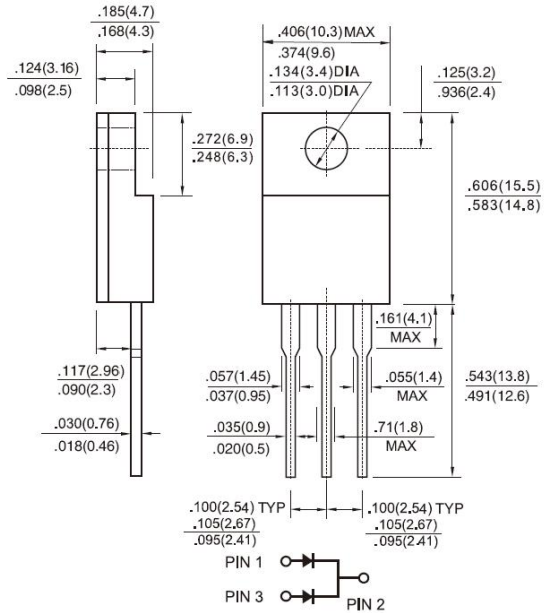


Features

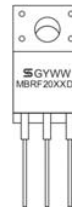
- ✧ Plastic material used carries Underwriters Laboratory Classifications 94V-0
- ✧ Metal silicon junction, majority carrier conduction
- ✧ Low power loss, high efficiency
- ✧ High current capability, low forward voltage drop
- ✧ High Surge capability
- ✧ For use in low voltage, high frequency inverters, 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.

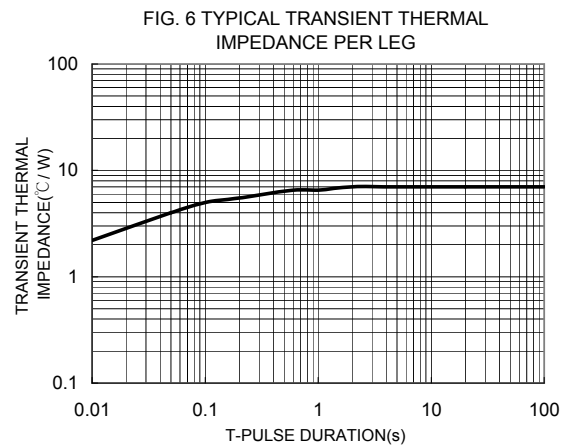
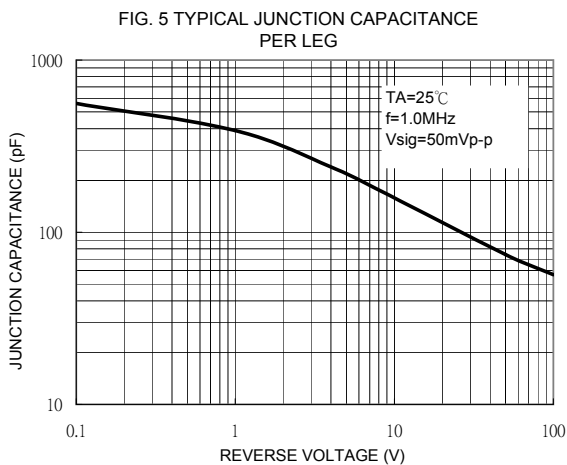
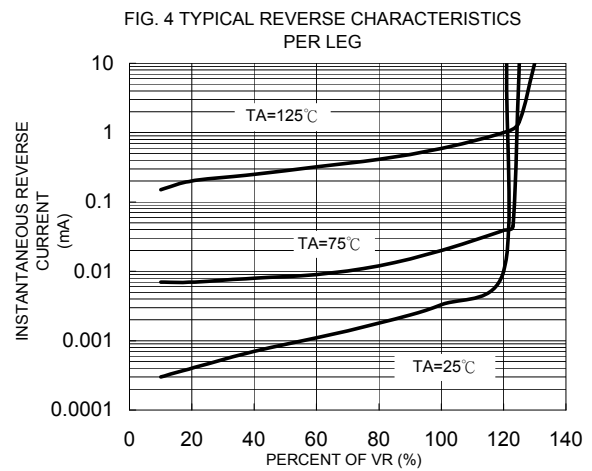
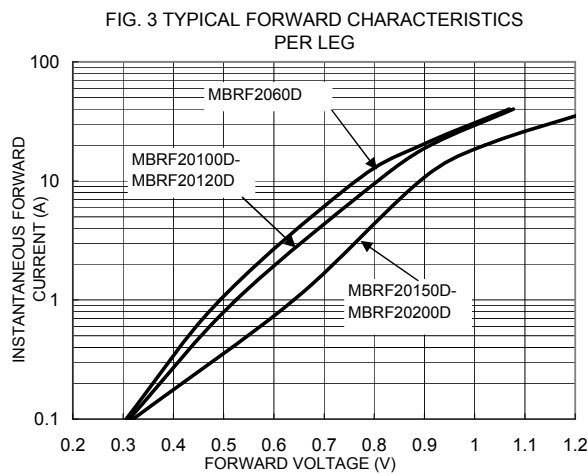
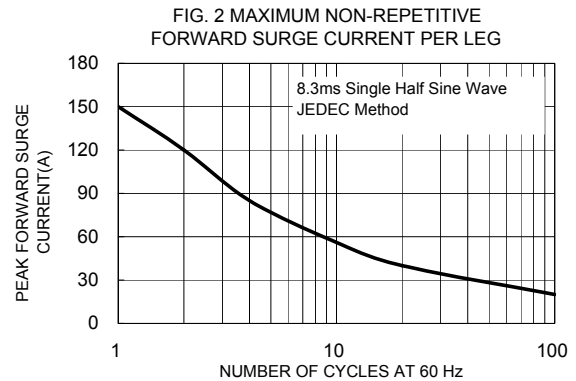
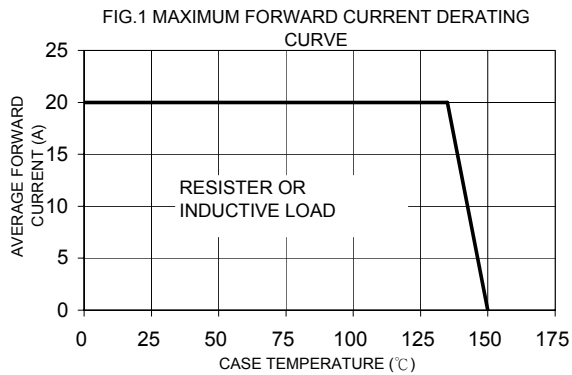
For capacitive load, derate current by 20%

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℃ (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℃ IF = 10A, TA=125℃ IF = 20A, TA=25℃ IF = 20A, TA=125℃	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 ℃ TA=125 ℃	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 _{θJC}	1.5	3.5				℃/W
Operating Temperature Range	T _J	-65 to + 150					℃
Storage Temperature Range	T _{STG}	-65 to + 175					℃

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)



Version:A11