

Schottky Barrier Rectifier

MBR1080

FEATURES

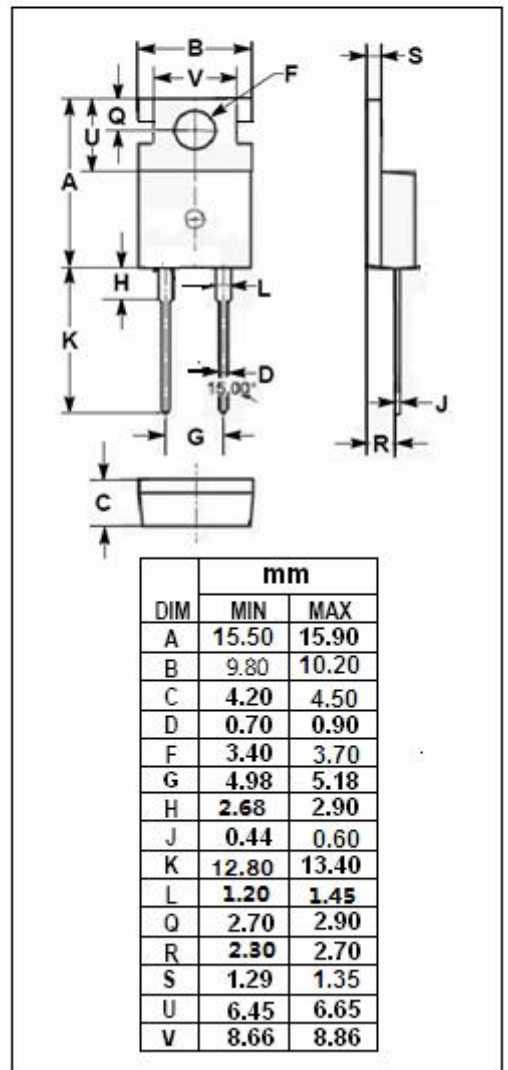
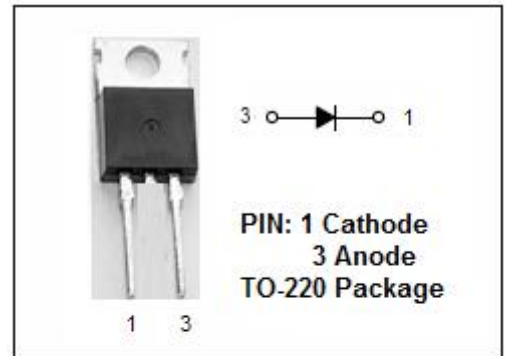
- Guard -Ring for Stress Protection
- Low Forward Voltage
- Low Power Loss/High Efficiency
- High Surge Capacity
- Low Stored Charge Majority Carrier Conduction
- Pb-Free Packages are Available
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

MECHANICAL CHARACTERISTICS

- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 Seconds

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
VRRM VRWM VR	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	80	V
IF(AV)	Average Rectified Forward Current (Rated VR) TC= 133°C	10	A
IFRM	Peak Repetitive Forward Current (Rated VR, Square Wave, 20kHz) TC= 133°C	20	A
IFSM	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	150	A
TJ	Junction Temperature	-65~175	°C
Tstg	Storage Temperature Range	-65~175	°C
dv/dt	Voltage Rate of Change (Rated VR)	10,000	V/μs



Schottky Barrier Rectifier**MBR1080****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	2.0	°C/W
R _{th j-a}	Thermal Resistance, Junction to Ambient	60	°C/W

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μ s, Duty Cycle ≤2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V _F	Maximum Instantaneous Forward Voltage	I _F = 10A ; T _C = 25°C I _F = 10A ; T _C = 125°C I _F = 20A ; T _C = 25°C I _F = 20A ; T _C = 125°C	0.8 0.7 0.95 0.85	V
I _R	Maximum Instantaneous Reverse Current	Rated DC Voltage, T _C = 25°C Rated DC Voltage, T _C = 125°C	0.1 6.0	mA