

Schottky Barrier Rectifier

MBRF10100

FEATURES

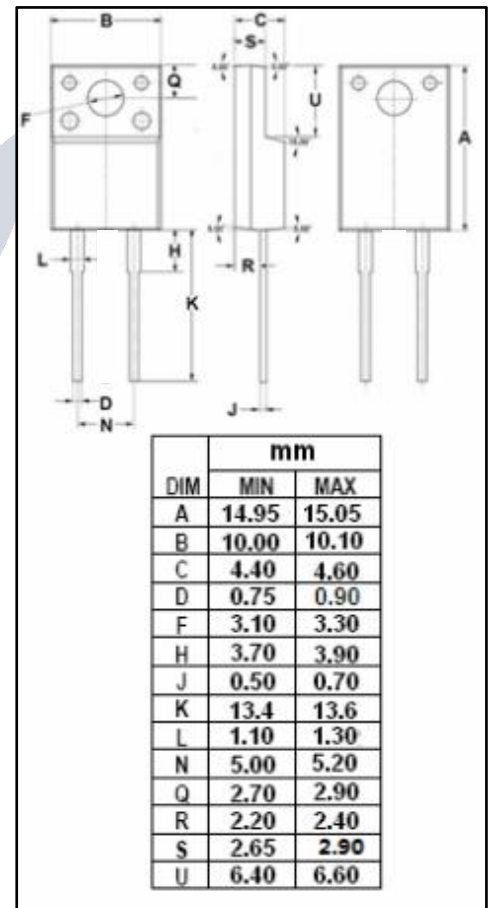
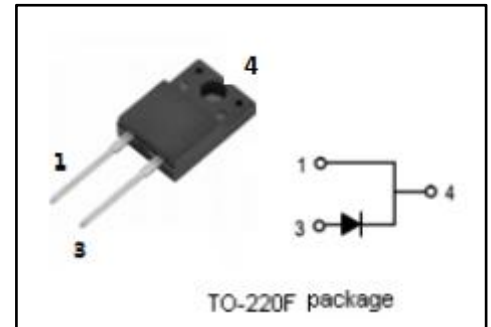
- Low Forward Voltage
- High Operating Junction Temperature
- Extremely low reverse leakage
- Optimized VF vs. IR trade off for high efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- High frequency switching
- High efficiency SMPS
- Automotive

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM}	Peak Repetitive Reverse Voltage	100	V
I _{F(AV)}	Average Rectified Forward Current (Rated V _R) T _C = 135°C	10	A
I _{FSM}	Non-repetitive Peak Surge Current (8.3ms single half-wave)	150	A
T _J	Junction Temperature	-65~175	°C
T _{stg}	Storage Temperature Range	-65~175	°C
dv/dt	Voltage Rate of Change (Rated V _R)	10000	V/μs



Schottky Barrier Rectifier**MBRF10100****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	3.5	°C/W

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300us, 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 0.65 0.95 0.75	V
I _R	Maximum Instantaneous Reverse Current	V _R =100V, T _C = 25°C V _R =100V, T _C = 100°C	0.1 6	mA

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