

Schottky Barrier Rectifier

MBR745

FEATURES

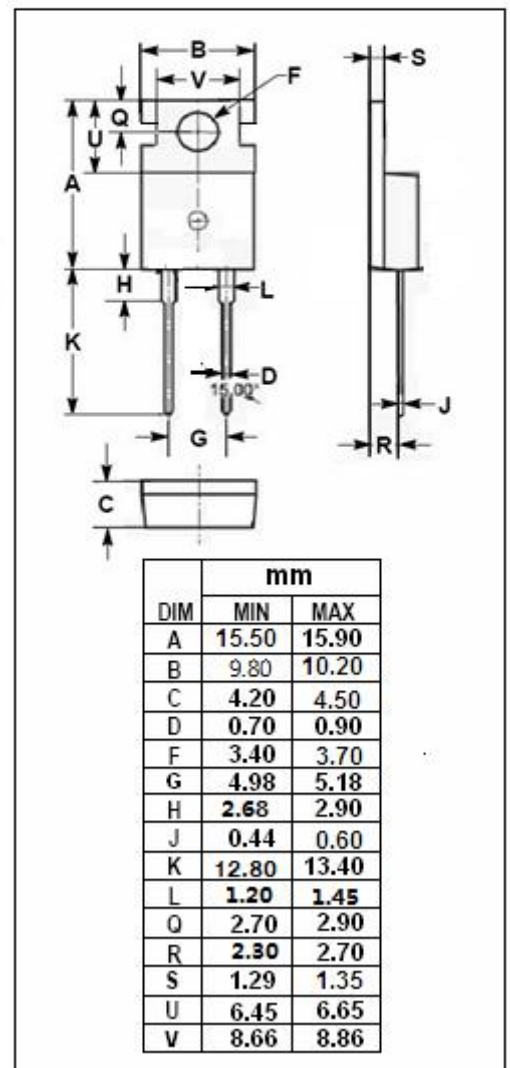
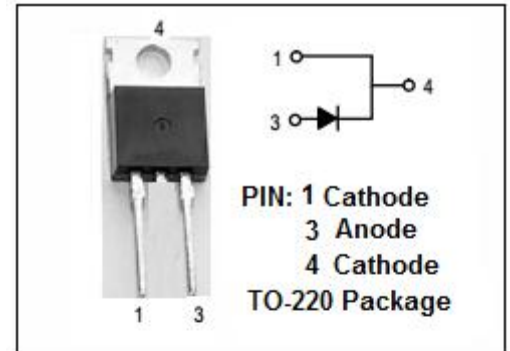
- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss/High Efficiency
- High Surge Capability
- High Current Capability, Low Forward Voltage Drop
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for low-voltage,high frequency inverters, free wheeling and polarity protection applications .

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RWM} V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	45	V
V _{R(RMS)}	RMS Reverse Voltage	31	V
I _{F(AV)}	Average Rectified Forward Current (Rated V _R) T _C = 125°C	7.5	A
I _{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	150	A
T _J	Junction Temperature	-65~150	°C
T _{stg}	Storage Temperature Range	-65~175	°C



Schottky Barrier Rectifier**MBR745****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.0	$^{\circ}C/W$

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300 μ s, Duty Cycle $\leq$ 1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 7.5A ; T_C = 125^{\circ}C$ $I_F = 15A ; T_C = 25^{\circ}C$ $I_F = 15A ; T_C = 125^{\circ}C$	0.57 0.84 0.72	V
I_R	Maximum Instantaneous Reverse Current	Rated DC Voltage, $T_C = 25^{\circ}C$ Rated DC Voltage, $T_C = 125^{\circ}C$	0.1 15	mA