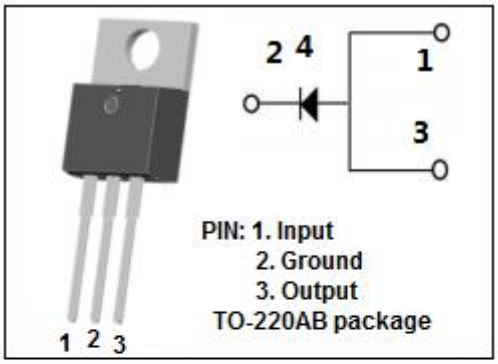
Schottky Barrier Rectifier — MBR10300

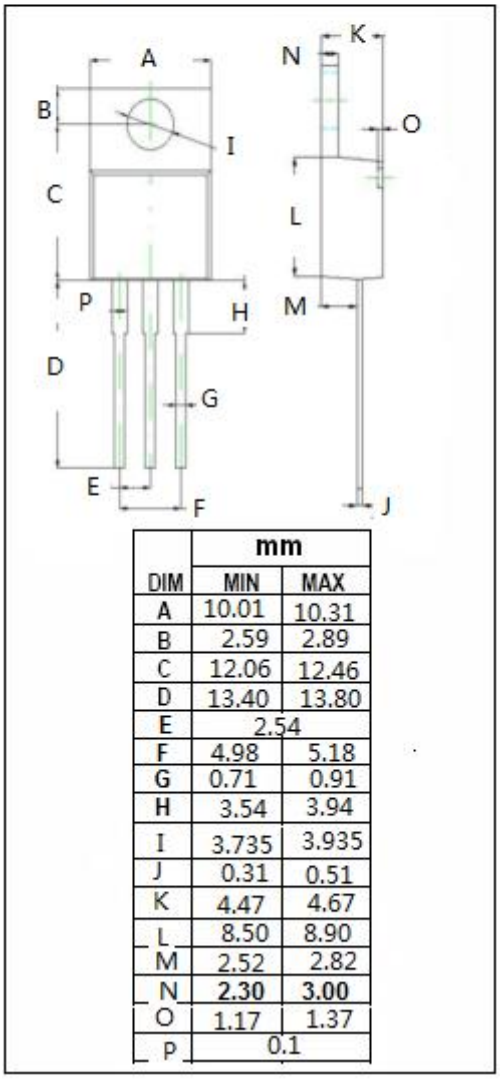
FEATURES

- Metal silicon junction，majority carrier conduction
- Low Power Loss/High Efficiency
- High current capability，low forward voltage drop
- High surge capability
- Guardring for overvoltage protection
- High temperature soldering guaranteed
- RoHS product
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

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



DIM	mm MIN	mm MAX
A	10.01	10.31
B	2.59	2.89
C	12.06	12.46
D	13.40	13.80
E	2.54	
F	4.98	5.18
G	0.71	0.91
H	3.54	3.94
I	3.735	3.935
J	0.31	0.51
K	4.47	4.67
L	8.50	8.90
M	2.52	2.82
N	2.30	3.00
O	1.17	1.37
P	0.1	

ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RWM} V_R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	300	V
$I_{F(AV)}$	Average Rectified Forward Current (Rated V_R) T_C= 125℃	10	A
I_{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	180	A
I_{RRM}	Peak Repetitive Reverse Surge Current (20 μs, 1.0kHz)	0.5	A
T_J	Junction Temperature	-40~150	℃
T_{stg}	Storage Temperature Range	-40~175	℃
dv/dt	Voltage Rate of Change (Rated V_R)	10,000	V/μs

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THERMAL CHARACTERISTICS

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

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	I_F= 10A ; T_C= 25℃	1.1	V
I_R	Maximum Instantaneous Reverse Current	Rated DC Voltage, T_C= 125℃ Rated DC Voltage, T_C= 25℃	3.0 0.01	mA