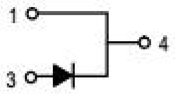
Schottky Barrier Rectifier MBR20100



PIN: 1 Cathode
3 Anode
4 Cathode
TO-220 Package

FEATURES

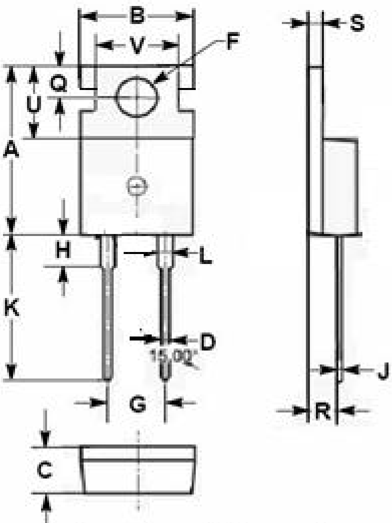
- Metal of silicon rectifier, majonty carrier conduction
- Guard ring for transient protection
- Low power loss high efficiency
- High Surge Capability,High Current Capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

MAXIMUN RATINGS

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

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	100	V
$V_{R(RMS)}$	RMS Reverse Voltag	70	V
$I_{F(AV)}$	Average Rectified Forward Current (Rated V_R) T_C= 135℃	20	A
I_{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	150	A
T_J	Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm	
	MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	2.0	℃/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	I_F= 20A ; T_C= 25℃	0.84	V
I_R	Maximum Instantaneous Reverse Current	Rated DC Voltage, T_C= 25℃ Rated DC Voltage, T_C= 125℃	0.1 5.0	mA