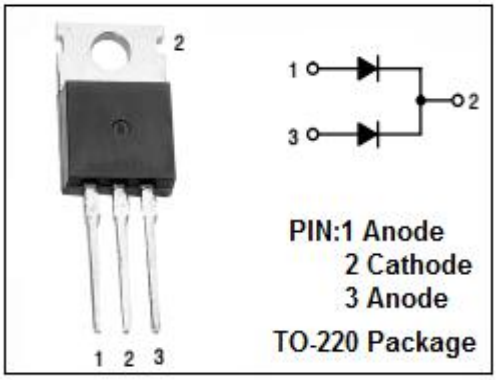
Schottky Barrier Rectifier — MBR60100CT

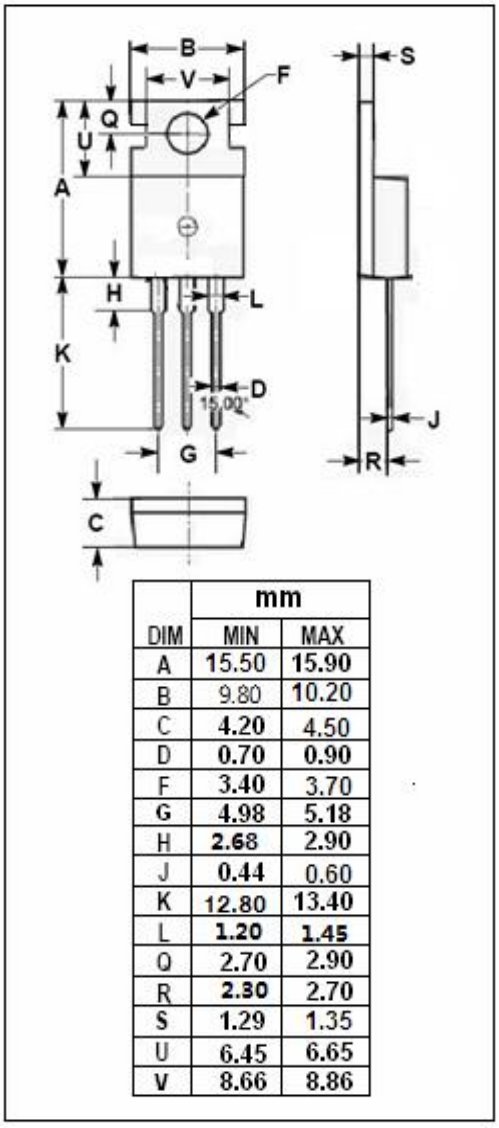
FEATURES

- Metal silicon junction, majority carrier conduction
- Low leakage current, low power loss, high efficiency
- Dual rectifier construction, positive center tap
- Guardring for overvoltage protection
- High frequency operation
- Low stored charge majority carrier conduction
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection
- Center tap configuration



DIM	mm MIN	mm 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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		VALUE	UNIT
V_{RRM} V_{RMS} V_R	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage		100 100 100	V
$I_{F(AV)}$	Average Rectified Forward Current	Top device Per leg	60 30	A
I_{FSM}	Nonrepetitive Peak Surge Current (8.3ms single half sine-wave superimposed on rated load conditions)		350	A
I_{RRM}	Peak Repetitive Reverse Current per leg at tp = 2μs, 1KHz		1.0	mA
T_J	Junction Temperature		-65~175	℃
T_{stg}	Storage Temperature Range		-65~175	℃

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.5	℃/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	I_F= 30A ;Tc= 25℃ I_F= 30A ;Tc= 125℃ I_F= 60A ;Tc= 25℃ I_F= 60A ;Tc= 125℃	0.82 0.69 1.00 0.83	V
I_R	Maximum Instantaneous Reverse Current	V_R= rated V_{RRM}; Tj= 25℃ V_R= rated V_{RRM}; Tj= 125℃	0.1 20	mA