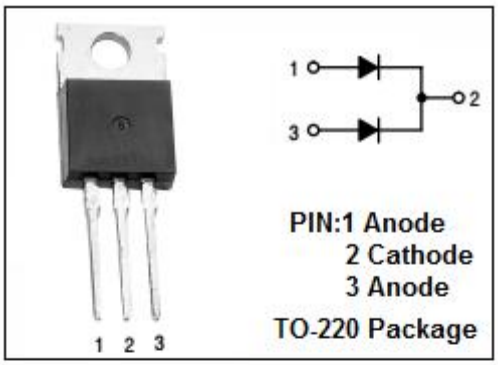
Schottky Barrier Rectifier MBR4045CT

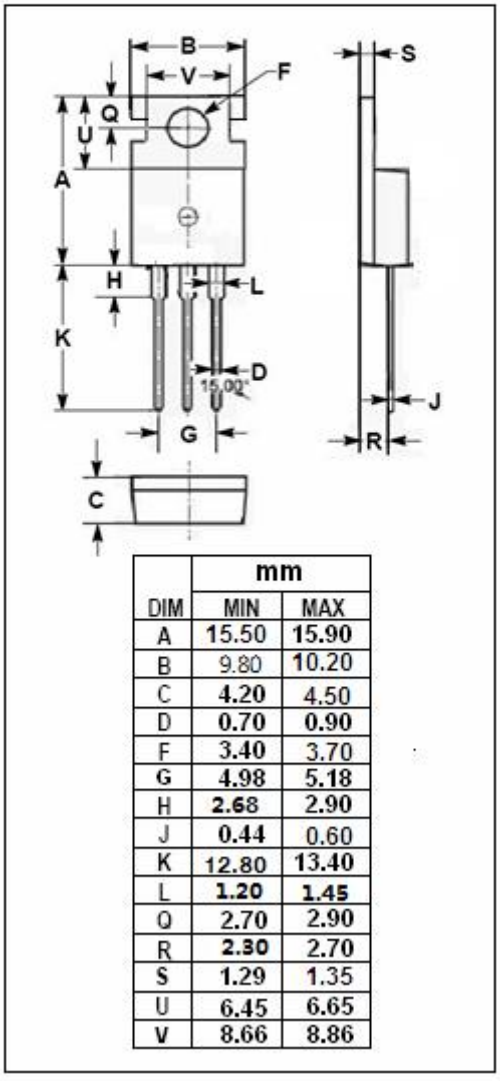


FEATURES

- With TO-220 packaging
- High junction temperature capability
- Low forward voltage drop
- High current capability
- Low power loss, high efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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



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

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	45	V
$I_{F(AV)}$	Average Rectified Forward Current@Tc=150℃	40	A
I_{FSM}	Nonrepetitive Peak Surge Current （8.3ms single half sine-wave superimposed on rated load conditions）tp=5μs sine	900	A
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

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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=300 μ s,Duty Cycle≤1%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	I_F= 20A ; Tc= 25℃	0.60	V
		I_F= 20A ; Tc= 125℃	0.58	
		I_F= 40A ; Tc= 25℃	0.78	
		I_F= 40A ; Tc= 125℃	0.75	
I_R	Maximum Instantaneous Reverse Current	V_R= $V_{RWM;}$Tc= 25℃	1	mA
		V_R= $V_{RWM;}$Tc= 125℃	95	