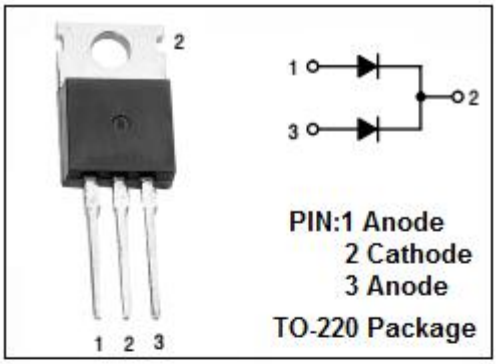
Schottky Barrier Rectifier — MBR41H100CT

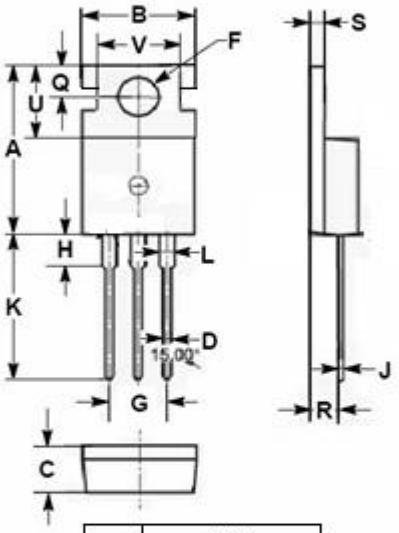
FEATURES

- Low Forward Voltage
- Low Power Loss,High Efficiency
- High Surge Capability
- 175℃ Operating Junction Temperature
- Pb-Free Package is Available
- Guard -Ring for Stress Protection
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



MECHANICAL CHARACTERISTICS

- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260℃ Max. for 10 Seconds



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_{RWM} V_R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	100	V
$I_{F(AV)}$	Average Rectified Forward Current (Rated V_R)T_C= 150℃	20	A
I_{FRM}	Peak Repetitive Forward Current (Rated V_R,Square Wave,20kHz)T_C= 145℃	40	A
I_{FSM}	Peak Forward Surge Current, 8.3 ms single halfsine-wave superimposed on rated load (JEDEC method)	350	A
T_J	Junction Temperature	-65~175	℃
T_{stg}	Storage Temperature Range	-65~175	℃
dv/dt	Voltage Rate of Change (Rated V_R)	10,000	V/μs

Schottky Barrier Rectifier MBR41H100CT

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.0	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	70	℃/W

ELECTRICAL CHARACTERISTICS(Pulse Test: Pulse Width≤300μs,Duty Cycle≤2.0%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	I_F= 20A, T_C= 25℃ I_F= 20A, T_C=125℃ I_F= 40A, T_C= 25℃ I_F= 40A, T_C= 125℃	0.80 0.67 0.90 0.76	V
I_R	Maximum Instantaneous Reverse Current	Rated DC Voltage, T_C= 25℃ Rated DC Voltage, T_C= 125℃	0.01 10.0	mA