

Schottky Barrier Rectifier

MBR40H100WT

FEATURES

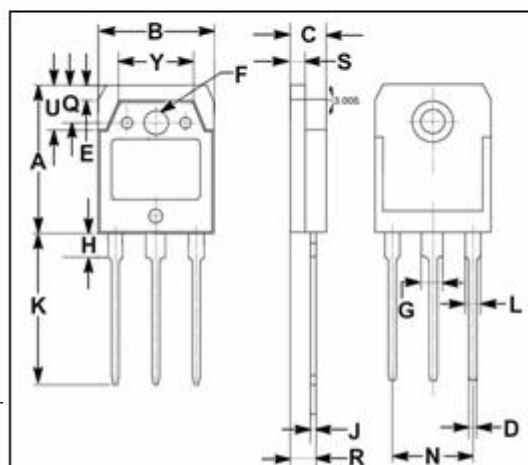
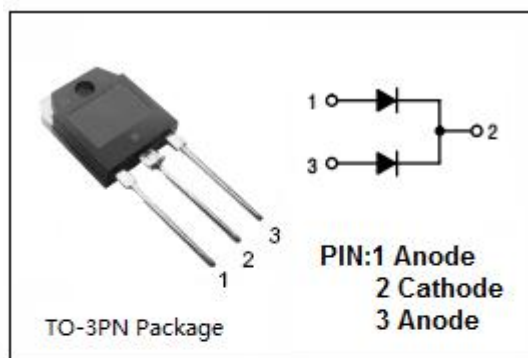
- Low Forward Voltage
- Low Power Loss, High Efficiency
- High Surge Capability
- 175°C Operating Junction Temperature
- Pb-Free Package is Available
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

MECHANICAL CHARACTERISTICS

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

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

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) $T_C = 150^{\circ}\text{C}$	20	A
I_{FRM}	Peak Repetitive Forward Current (Rated V_R , Square Wave, 20kHz) $T_C = 145^{\circ}\text{C}$	40	A
I_{FSM}	Peak Forward Surge Current, 8.3 ms single halfsine-wave superimposed on rated load (JEDEC method)	200	A
T_J	Junction Temperature	-65~175	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-65~175	$^{\circ}\text{C}$
dv/dt	Voltage Rate of Change (Rated V_R)	10,000	V/ μs



DIM	mm	
	MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

Schottky Barrier Rectifier**MBR40H100WT****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.0	$^{\circ}\text{C}/\text{W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	60	$^{\circ}\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS(Pulse Test: Pulse Width $\leq 300\ \mu\text{s}$, Duty Cycle $\leq 2.0\%$)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 20\text{A}, T_C = 25^{\circ}\text{C}$ $I_F = 20\text{A}, T_C = 125^{\circ}\text{C}$ $I_F = 40\text{A}, T_C = 25^{\circ}\text{C}$ $I_F = 40\text{A}, T_C = 125^{\circ}\text{C}$	0.80 0.67 0.90 0.76	V
I_R	Maximum Instantaneous Reverse Current	Rated DC Voltage, $T_C = 25^{\circ}\text{C}$ Rated DC Voltage, $T_C = 125^{\circ}\text{C}$	0.01 10.0	mA