



Micro Commercial Components  
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# MBR5020WT THRU MBR50100WT

## Features

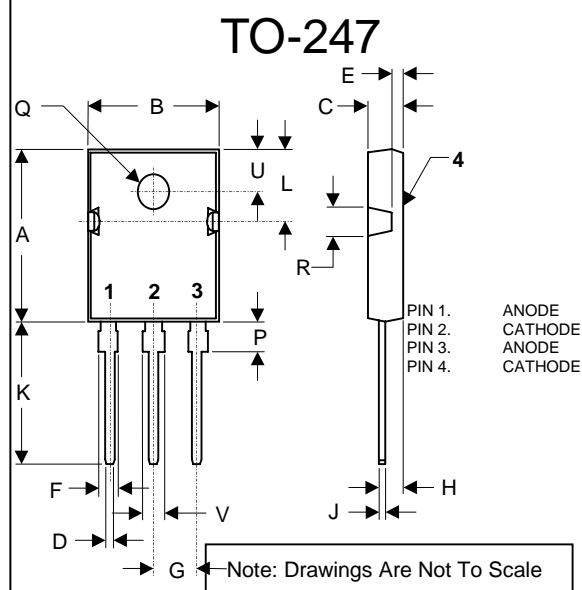
- High Surge Capacity
- Low Power Loss, High Efficiency
- High Current Capability, Low  $V_F$
- Metal of silicon Rectifier, majority Carrier Conduction
- Guard Ring For Transient Protection
- Plastic Package Has UL Flammability Classification 94V-0

## Maximum Ratings

- Operating Temperature:  $-55^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$
- Storage Temperature:  $-55^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR5020WT	20V	14V	20V
MBR5030WT	30V	21V	30V
MBR5035WT	35V	24.5V	35V
MBR5040WT	40V	28V	40V
MBR5045WT	45V	31.5V	45V
MBR5060WT	60V	42V	60V
MBR5080WT	80V	56V	80V
MBR50100WT	100V	70V	100V

## 50 Amp Schottky Barrier Rectifier 20 to 100 Volts



## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	50.0A	$T_C=125^{\circ}\text{C}$
Peak Forward Surge Current	$I_{FSM}$	200A	8.3ms half sine
Maximum Instantaneous Forward Voltage MBR5020WT-5045WT MBR5060WT MBR5080WT-50100WT	$V_F$	.62V .75V .84V	$I_{FM}=30.0\text{A}$ $I_{FM}=25.0\text{A}$ $T_A=25^{\circ}\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	0.1mA	$T_C=25^{\circ}\text{C}$
Typical Junction Capacitance	$C_j$	pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MIN	
A	.803	.823	20.40	20.90	
B	.608	.628	15.44	15.95	
C	.185	.205	4.70	5.21	
D	.043	.051	1.09	1.30	
E	.059	.064	1.50	1.63	
F	.071	.086	1.80	2.18	
G	.215	BSC	5.45	BSC	
H	.101	.130	2.56	2.87	
J	.019	.027	0.48	0.68	
K	.613	.633	15.57	16.08	
L	.286	.295	7.26	7.50	
P	.122	.133	3.10	3.38	
Q	.138	.145	3.50	3.70	
R	.130	.150	3.30	3.80	
U	.209	BSC	5.30	BSC	
V	.120	.134	3.05	3.40	

Pulse test: Pulse width 300 usec, duty cycle 2%.

# MBR5020WT thru MBR50100WT

Figure 1  
Typical Forward Characteristics – Per Leg

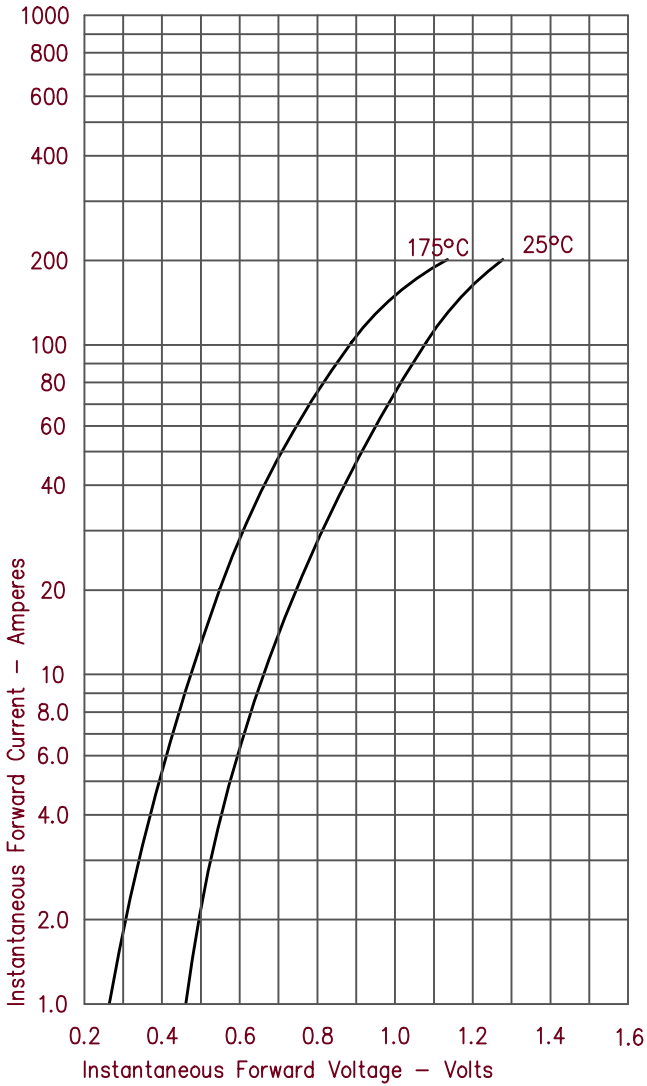


Figure 3  
Typical Junction Capacitance – Per Leg

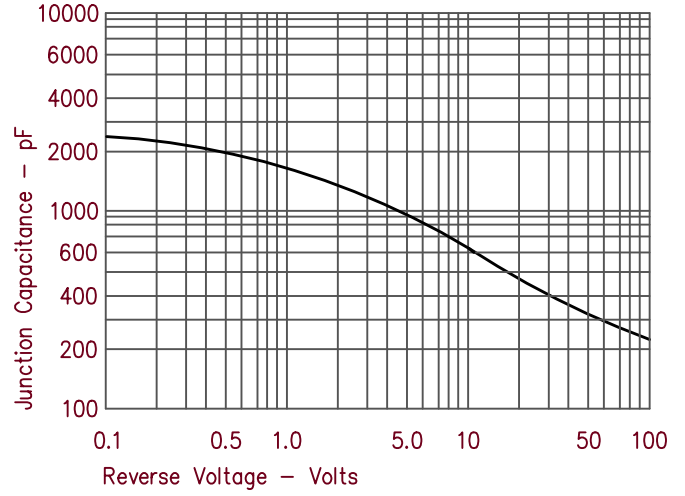


Figure 4  
Forward Current Derating – Per Leg

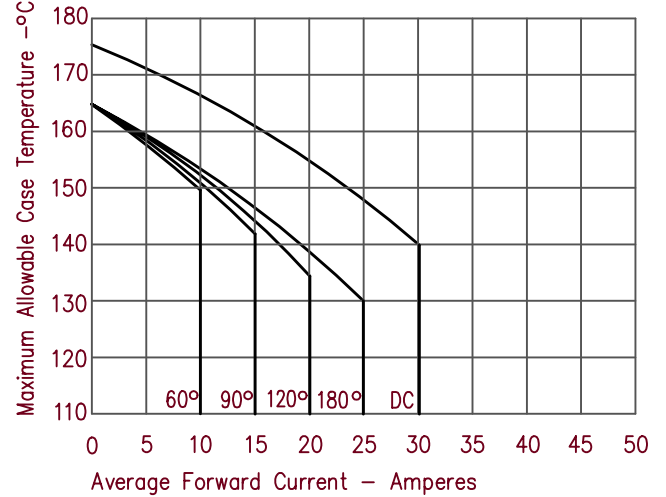


Figure 2  
Typical Reverse Characteristics – Per Leg

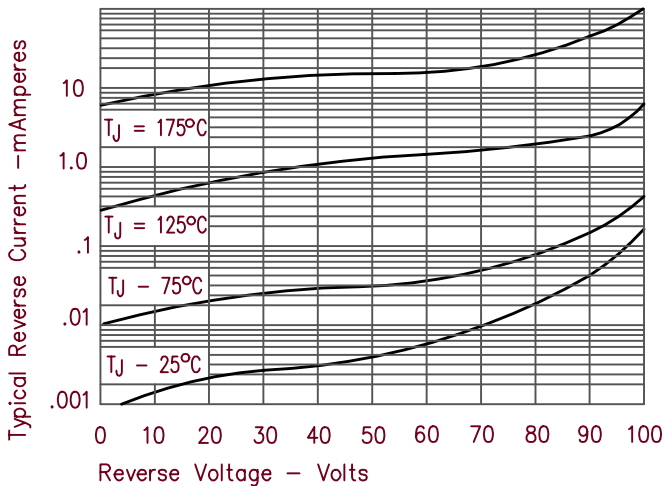


Figure 5  
Maximum Forward Power Dissipation – Per Leg

