



Micro Commercial Components  
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# MBR3020WT THRU MBR3060WT

## 30 Amp Schottky Barrier Rectifier 20 to 60 Volts

### 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  $+175^{\circ}\text{C}$

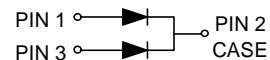
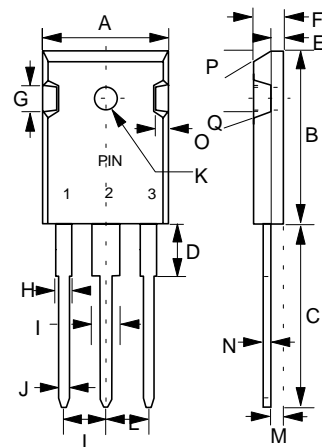
MCC Part Number	Maximum Re current Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR3020WT	20V	14V	20V
MBR3030WT	30V	21V	30V
MBR3035WT	35V	24.5V	35V
MBR3040WT	40V	28V	40V
MBR3045WT	45V	31.5V	45V
MBR3060WT	60V	42V	60V

### Electrical Characteristics @ $25^{\circ}\text{C}$ Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	30.0A	$T_C=125^{\circ}\text{C}$
Peak Forward Surge Current	$I_{FSM}$	200A	8.3ms half sine
Maximum Instantaneous Forward Voltage MBR3020WT-3045WT MBR3060WT MBR3020WT-3045WT MBR3060WT	$V_F$	.63V .75V .76V .80V	$I_{FM} = 20.0A$ $T_A=25^{\circ}\text{C}$ $I_{FM} = 30.0A$ $T_A=25^{\circ}\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage MBR3020WT-3045WT MBR3060WT MBR3020WT-3045WT MBR3060WT	$I_R$	1mA 5mA 60mA 100mA	$T_C=25^{\circ}\text{C}$ $T_C=25^{\circ}\text{C}$ $T_C=125^{\circ}\text{C}$ $T_C=125^{\circ}\text{C}$
Typical Junction Capacitance	$C_j$	500pF	Measured at 1.0MHz, $V_R=4.0V$

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

### TO-247



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.620	.640	15.75	16.25	
B	.837	.856	21.25	21.75	
C	.772	.791	19.60	20.10	
D	.149	.172	3.78	4.38	
E	.074	.082	1.88	2.08	
F	.192	.202	4.87	5.13	
G	.173 TYP		4.4 TYP		
H	.075	.085	1.90	2.16	
I	.115	.127	2.93	3.22	
J	.044	.048	1.12	1.22	
K	.114	.126	2.90	3.20	∅
L	.205	.224	5.20	5.70	
M	.083	.095	2.10	2.40	
N	.020	.030	0.51	0.76	
O	.076	.086	1.93	2.18	
P	20° TYP				
Q	10° TYP				

# MBR3020WT thru MBR3060WT

FIG.1 - FORWARD CURRENT DERATING CURVE

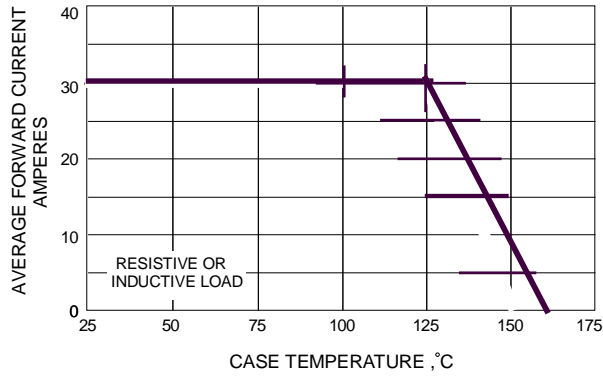


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

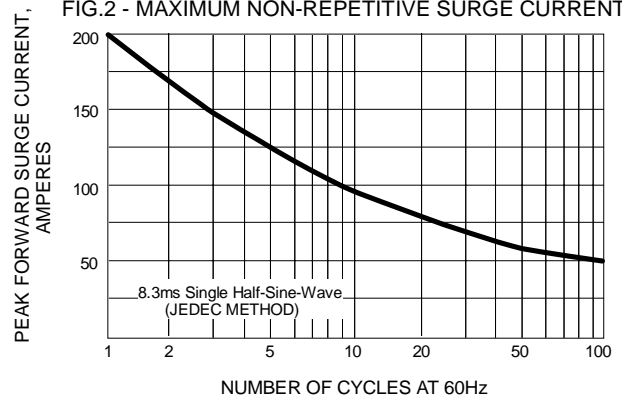


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

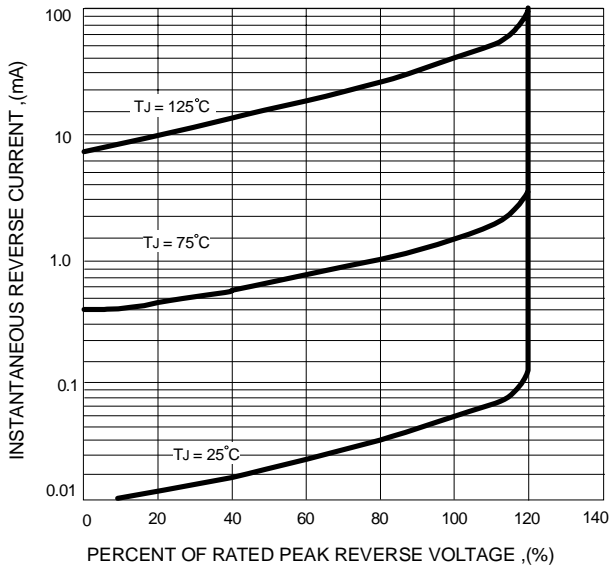


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

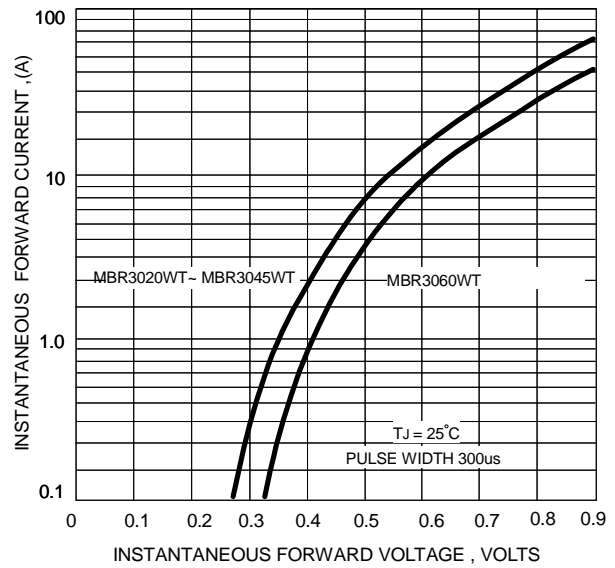


FIG.5 - TYPICAL JUNCTION CAPACITANCE

