



Micro Commercial Components  
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# MBR6045WT

## 60 Amp Schottky Barrier Rectifier 45 Volts

### Features

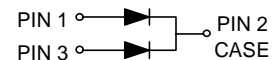
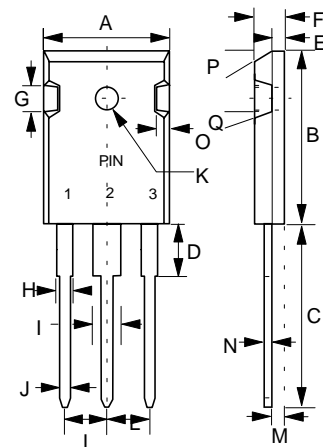
- High Surge Capacity
- Low Power Loss, High Efficiency
- High Current Capability, Low  $V_F$
- Metal of silicon Rectifier, majority Carrier Conduction
- Guard Ring For Transient Protection
- Plastic Package Has UL Flammability Classification 94V-0

### 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 Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR6045PT	45V	31.5V	45V

### TO-247



### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	60.0A	$T_C=125^{\circ}\text{C}$
Peak Forward Surge Current	$I_{FSM}$	500A	8.3ms half sine
Maximum Instantaneous Forward Voltage MBR6045PT	$V_F$	.62V .75V	$I_{FM}=30.0\text{A}$ $I_{FM}=60.0\text{A}$ $T_J=25^{\circ}\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	1.0mA 50mA	$T_J=25^{\circ}\text{C}$ $T_J=100^{\circ}\text{C}$
Typical Junction Capacitance	$C_j$	700pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

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

DIM	INCHES		MM		NOTE
	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				

FIG.1 - FORWARD CURRENT DERATING CURVE

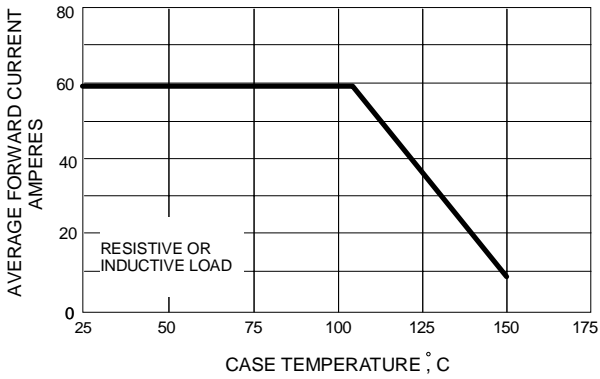


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

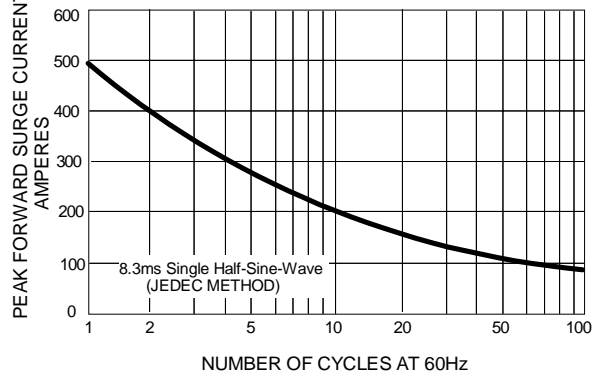


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

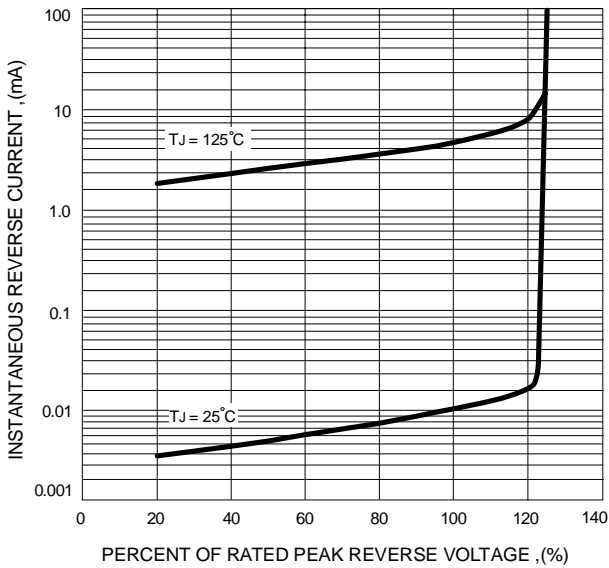


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

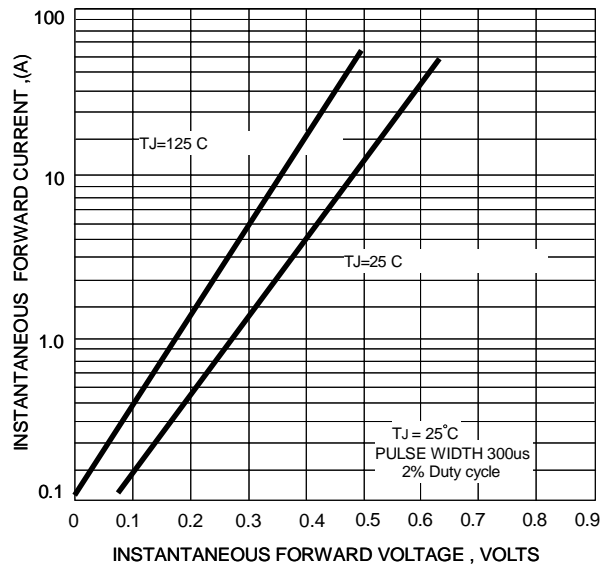


FIG.5 - TYPICAL JUNCTION CAPACITANCE

