



Micro Commercial Components  
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# MBR1030CT THRU MBR1060CT

## Features

- Metal of silicon rectifier, majority carrier conductor
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability

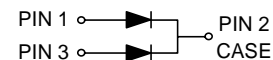
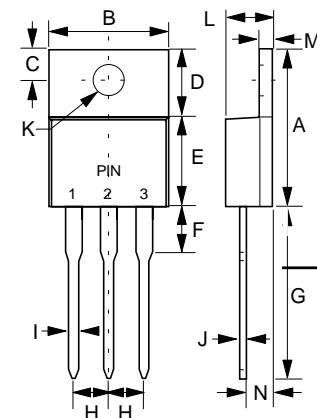
## Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +175°C

# 10 Amp Schottky Barrier Rectifier 30-60 Volts

Mcc Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR1030CT	MBR1030CT	30V	21V	30V
MBR1035CT	MBR1035CT	35V	24.5V	35V
MBR1040CT	MBR1040CT	40V	28V	40V
MBR1045CT	MBR1045CT	45V	31.5V	45V
MBR1050CT	MBR1050CT	50V	35V	50V
MBR1060CT	MBR1060CT	60V	42V	60V

## TO-220AB



## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	10A	$T_C = 105^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	125A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element MBR1030CT-45CT MBR1050CT-60CT MBR1030CT-45CT MBR1050CT-60CT	$V_F$	.70V .80V .57V .65V	$I_{FM} = 5A$ $T_J = 25^\circ\text{C}$ $I_{FM} = 5A$ $T_J = 125^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	IR	0.1mA 15mA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Typical Junction Capacitance MBR1030CT-45CT MBR1050CT-60CT	$C_J$	170pF 220pF	Measured at 1.0MHz, $V_R = 4.0V$

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.570	.620	14.48	15.75	
B	.380	.405	9.66	10.28	
C	.100	.120	2.54	3.04	
D	.235	.255	5.97	6.48	
E	.335	.365	8.51	9.27	
F	.110	.155	2.80	3.93	
G	.500	.562	12.70	14.27	
H	.095	.105	2.42	2.66	
I	.025	.035	0.64	0.89	
J	.016	.025	0.41	0.64	
K	.142	.147	3.61	3.73	∅
L	.160	.190	4.06	4.82	
M	.045	.055	1.14	1.39	
N	0.102 typ.		2.6 typ.		

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

# RATING AND CHARACTERISTIC CURVES

## MBR1030CT thru MBR1060CT

FIG.1 - FORWARD CURRENT DERATING CURVE

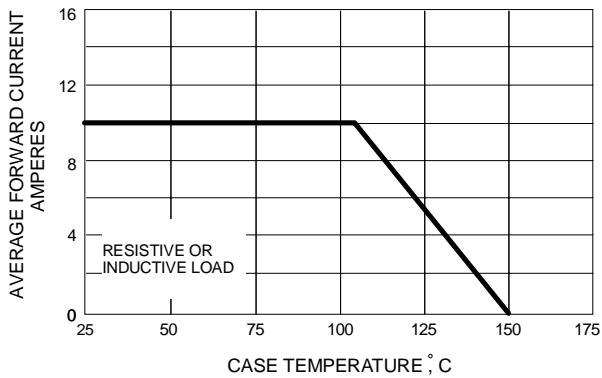


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

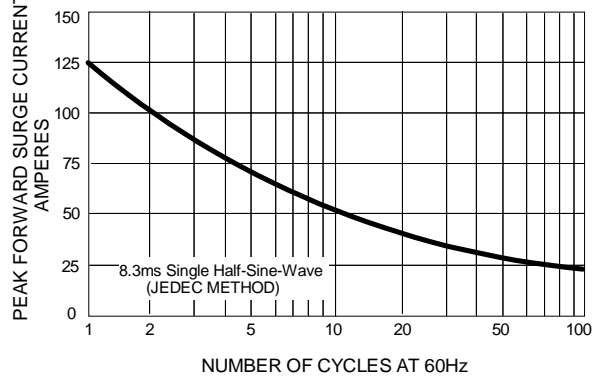


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

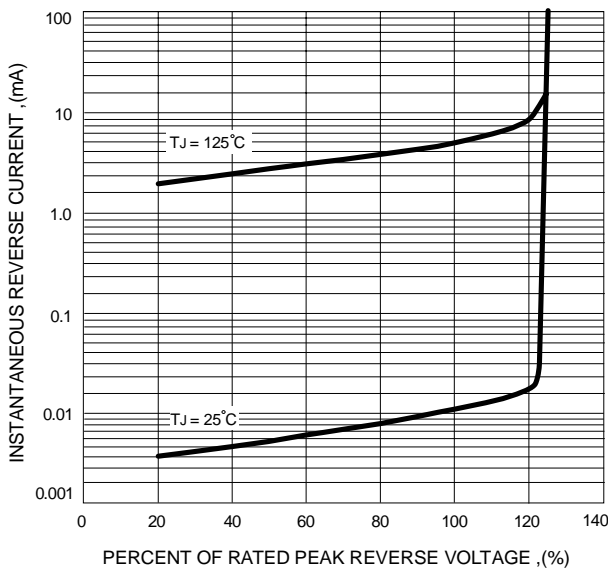


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

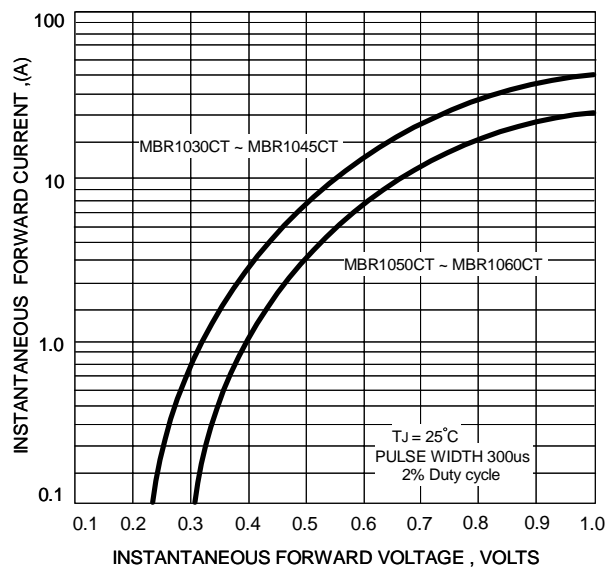


FIG.5 - TYPICAL JUNCTION CAPACITANCE

