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# MBR3020CT THRU MBR30100CT

## Features

- Metal of siliconrectifier, majonty carrier conducton
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability

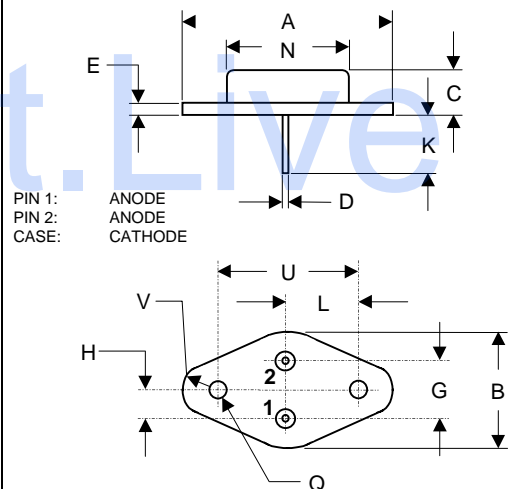
## 30 Amp Schottky Barrier Rectifier 20 to 100 Volts

## Maximum Ratings

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

MCC Part Number	Maximum Rcurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR3020CT	20V	14V	20V
MBR3030C	30V	21V	30V
MBR3035CT	35V	24.5V	35V
MBR3040CT	40V	28V	40V
MBR3045CT	45V	31.5V	45V
MBR3060CT	60V	42V	60V
MBR3080CT	80V	56V	80V
MBR30100CT	100V	70V	100V

## TO-3



## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	30 A	$T_L = 105^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	400A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$		$I_{FM} = 15.0\text{A};$ $T_A = 25^\circ\text{C}$
MBR3020-3045		.63 V	
MBR3060		.75 V	
MBR3080-30100		.84 V	
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	1.0mA	$T_A = 25^\circ\text{C}$
Typical Junction Capacitance	$C_J$	200pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

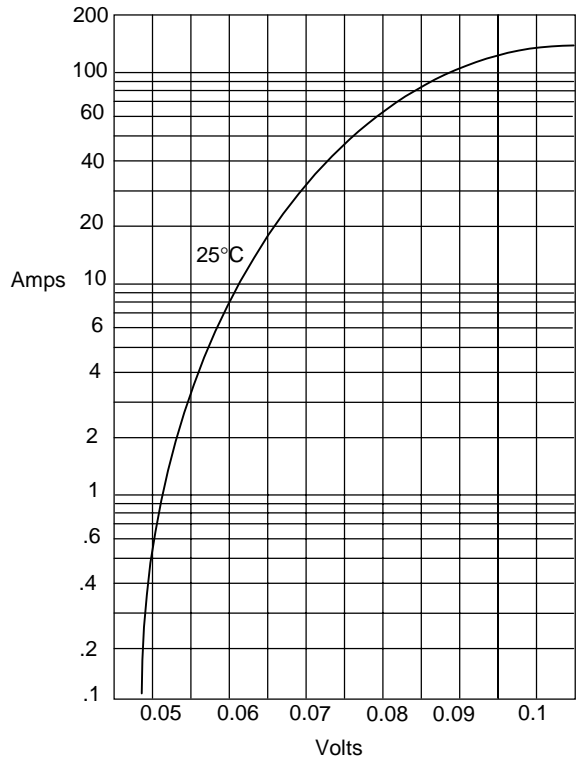
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	1.550	REF	39.37	REF
B	----	1.050	----	26.67
C	.250	.335	6.35	8.51
D	.038	.043	0.97	1.09
E	.055	.070	1.40	1.77
G	.430	BSC	10.92	BSC
H	.215	BSC	5.46	BSC
K	.440	.480	11.18	12.19
L	.665	BSC	16.89	BSC
N	----	.830	----	21.08
Q	.151	.165	3.84	4.19
U	1.187	BSC	30.15	BSC
V	.131	1.88	3.33	4.77

\*Pulse Test: Pulse Width 300μsec, Duty Cycle 1%

# MBR3020CT thru MBR30100CT

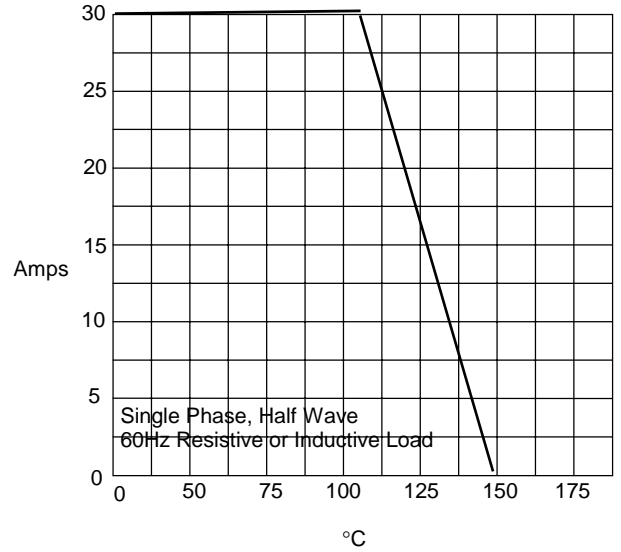


Figure 1  
Typical Forward Characteristics



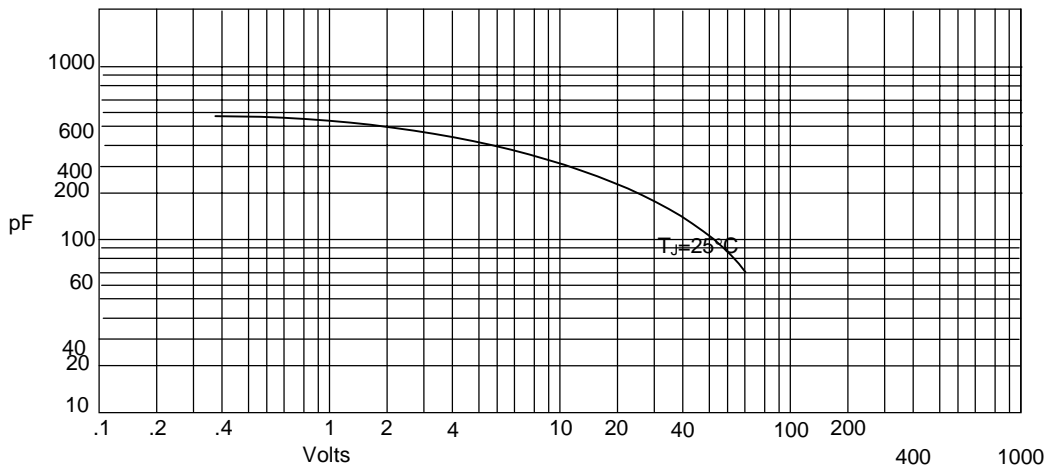
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

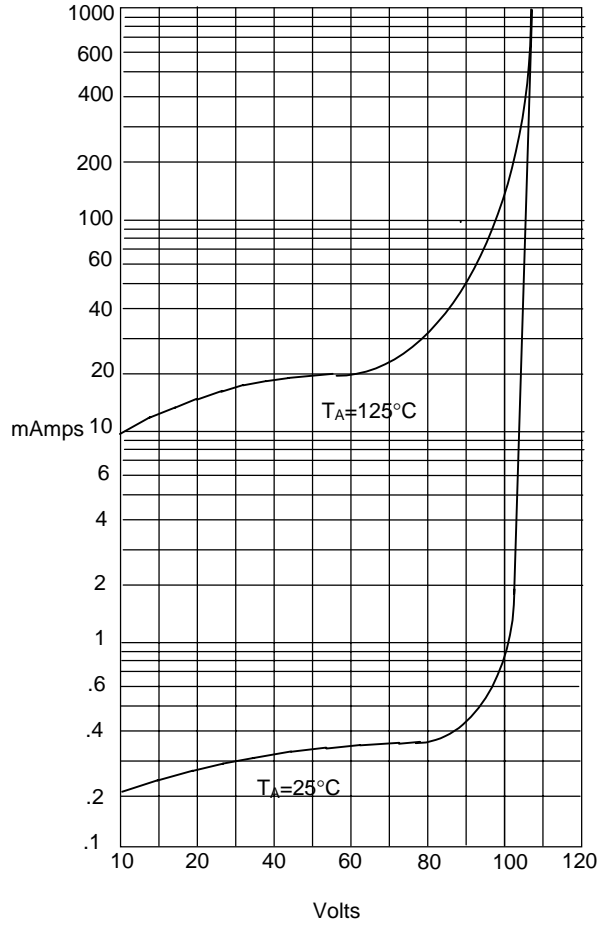
Figure 3  
Junction Capacitance



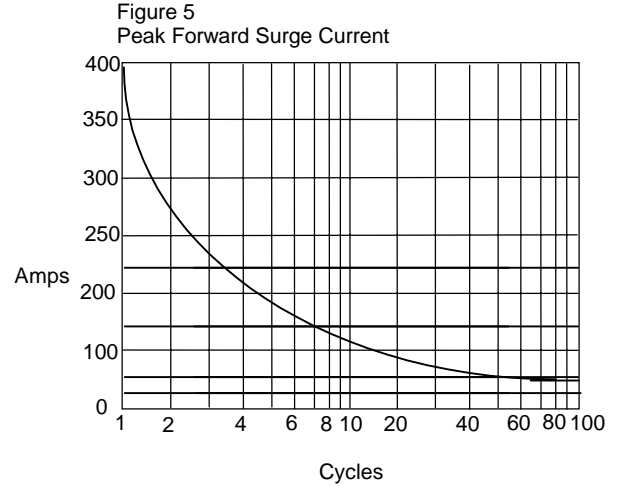
Junction Capacitance - pF versus  
Reverse Voltage - Volts



Figure 4  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles