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MBR3020CT THRU MBR30100CT

Features

- Metal of silicon rectifier, majority carrier conduction
- 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 +150°C

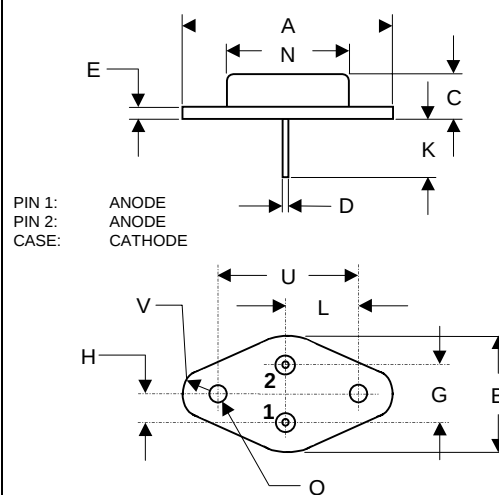
MCC Part Number	Maximum Rcurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR3020CT	20V	14V	20V
MBR3030C	30V	21V	30V
MBR3035CT	35V	24.5V	35V
MBR3040CT	40V	28V	40V
MBR3045CT	45V	31.5V	45V
MBR3060CT	60V	42V	60V
MBR3080CT	80V	56V	80V
MBR30100CT	100V	70V	100V

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 MBR3020-3045 MBR3060 MBR3080-30100	V_F	.63 V .75 V .84 V	$I_{FM} = 15.0\text{A};$ $T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	1.0 mA	$T_A = 25^\circ\text{C}$
Typical Junction Capacitance	C_J	200pF	Measured at 1.0MHz, $V_R = 4.0\text{V}$

30 Amp Schottky Barrier Rectifier 20 to 100 Volts

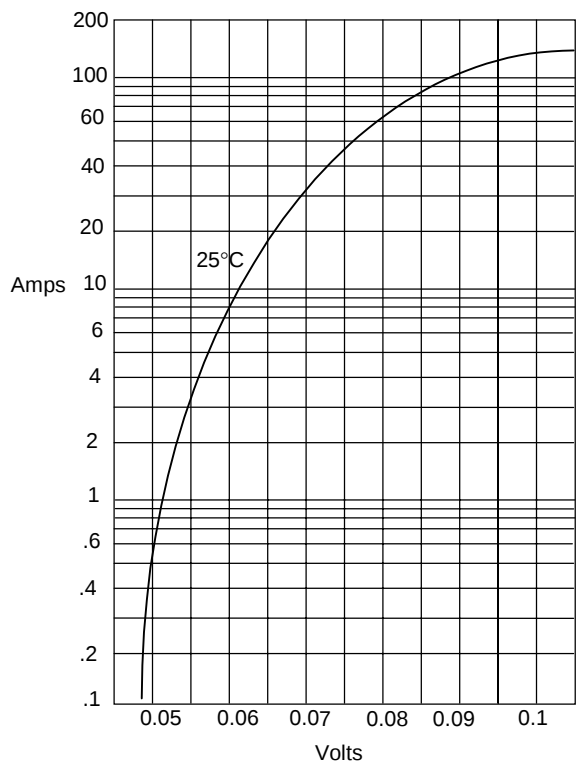
TO-3



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

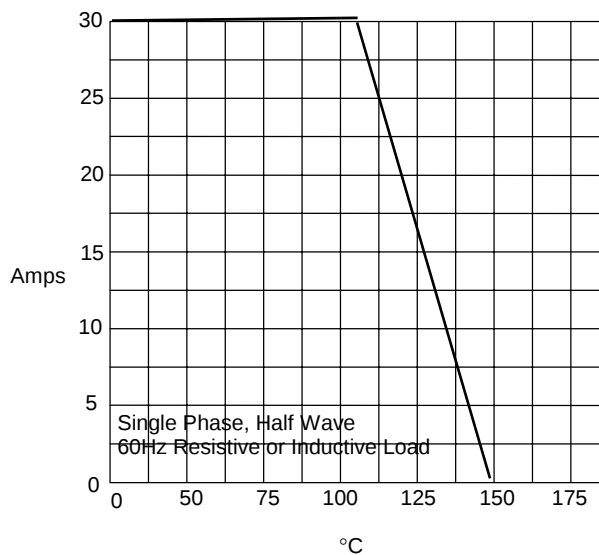
*Pulse Test: Pulse Width 300μsec, Duty Cycle 1%

Figure 1
Typical Forward Characteristics



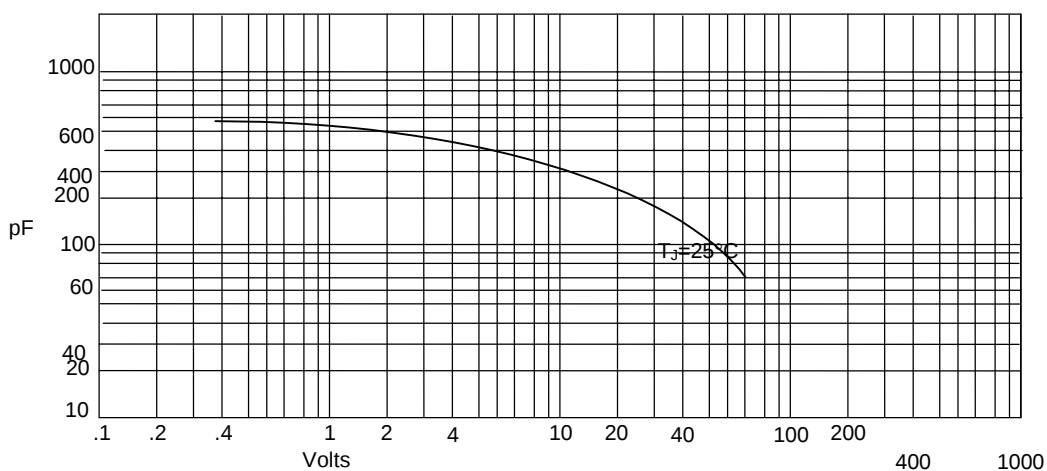
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



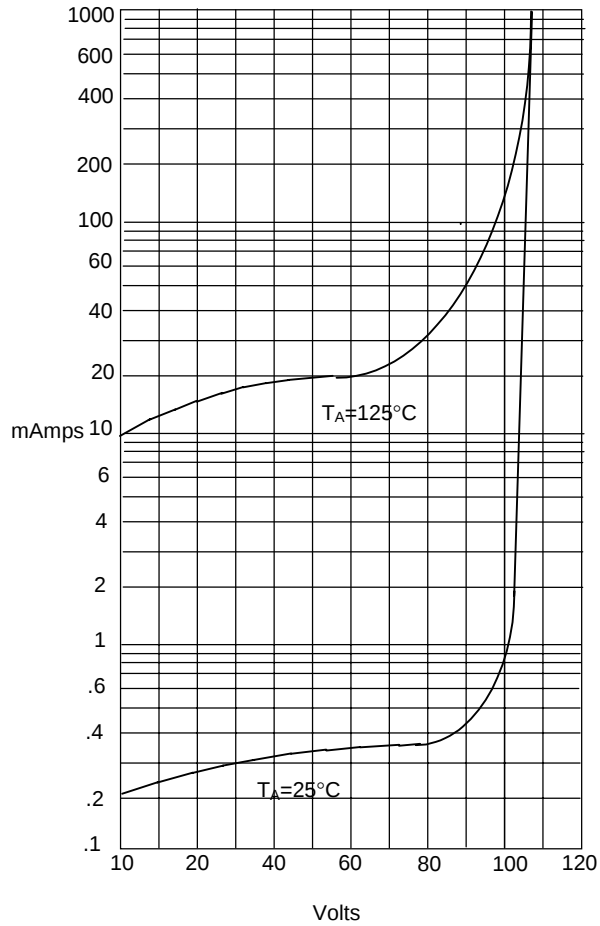
Average Forward Rectified Current - Amperes versus
Ambient Temperature - °C

Figure 3
Junction Capacitance



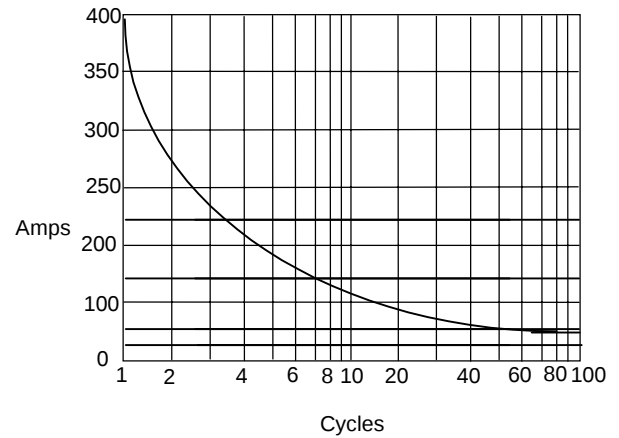
Junction Capacitance - pF versus
Reverse Voltage - Volts

Figure 4
Typical Reverse Characteristics



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

Figure 5
Peak Forward Surge Current



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