



Micro Commercial Components



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# MBR2020CT THRU MBR20100CT

## 20 Amp Schottky Barrier Rectifier 20 to 100 Volts

### Features

- Meatl of Silicon Rectifier, Majority Conduction
- Guard ring for transient protection
- High Current Capability, High Efficiency
- Low Forward Voltage Drop
- Marking : type number
- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

### Maximum Ratings

- Mounting Torque: 5 in-lbs Maximum
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance Junction to Case : 2.0°C/W

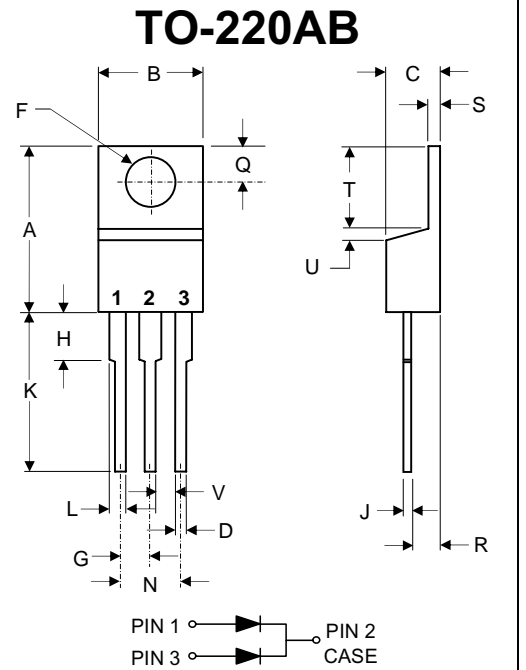
MCC Catalog Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR2020CT	20V	14V	20V
MBR2030CT	30V	21V	30V
MBR2035CT	35V	24.5V	35V
MBR2040CT	40V	28V	40V
MBR2045CT	45V	31.5V	45V
MBR2060CT	60V	42V	60V
MBR2080CT	80V	56V	80V
MBR20100CT	100V	70V	100V

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

Average Forward Current	$I_{F(AV)}$	20 A	$T_A = 120^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	150A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$		
2020CT-2045CT		.70V	$I_{FM} = 10A;$ $T_A = 25^\circ\text{C} *$
2060CT		.80V	
2080CT-20100CT		.85V	$I_{FM} = 20A;$ $T_A = 25^\circ\text{C} *$
2020CT-2045CT		.84V	
2060CT		.95V	$I_{FM} = 20A;$ $T_A = 125^\circ\text{C} *$
2080CT-20100CT		.95V	
2020CT-2045CT		.72V	$T_A = 125^\circ\text{C} *$
2060CT		.85V	
2080CT-20100CT		.85V	
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$		
2020CT~2045CT		0.1mA	$T_A = 25^\circ\text{C}$
2060CT~20100CT		0.15mA	$T_A = 125^\circ\text{C}$
2020CT~2045CT		50mA	
2060CT~20100CT		150mA	

\*Pulse Test: Pulse Width 300µsec, Duty Cycle 2%

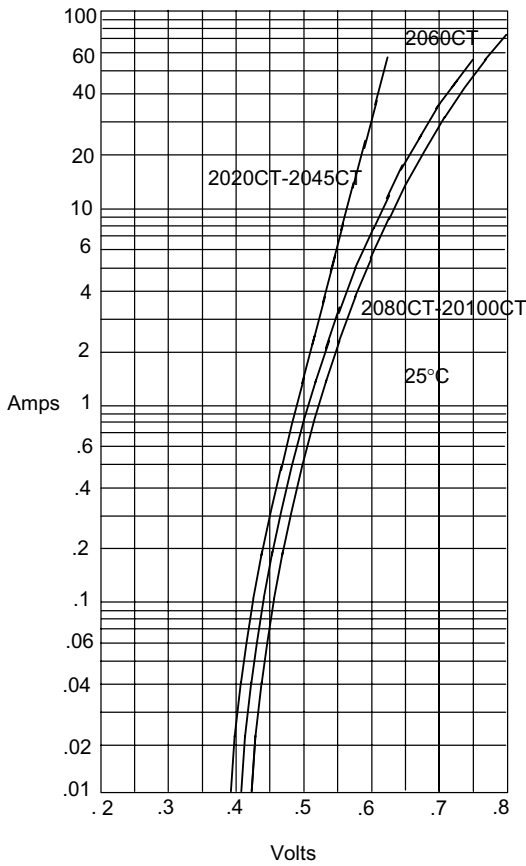
Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.140	.190	3.56	4.82	
D	.020	.045	0.51	1.14	
F	.139	.161	3.53	4.09	∅
G	.190	.110	2.29	2.79	
H	---	.250	---	6.35	
J	.012	.025	0.30	0.64	
K	.500	.580	12.70	14.73	
L	.045	.060	1.14	1.52	
N	.190	.210	4.83	5.33	
Q	.100	.135	2.54	3.43	
R	.080	.115	2.04	2.92	
S	.045	.055	1.14	1.39	
T	.230	.270	5.84	6.86	
U	-----	.050	-----	1.27	
V	.045	-----	1.15	-----	

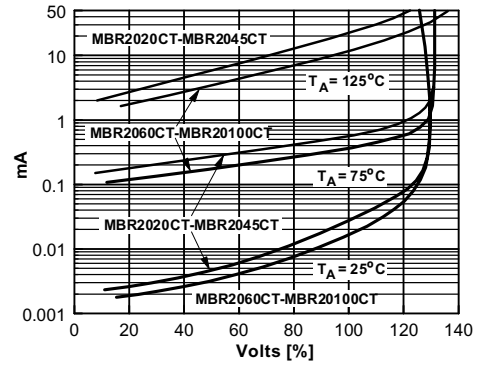
# MBR2020CT thru MBR20100CT

Figure 1  
Typical Forward Characteristics



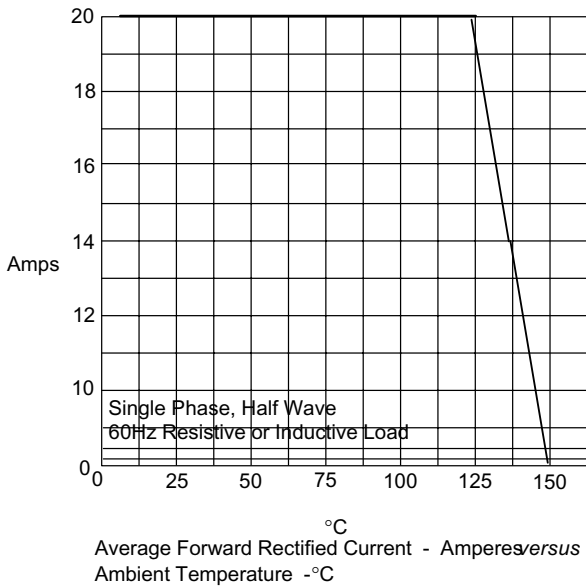
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
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Typical Reverse Characteristics



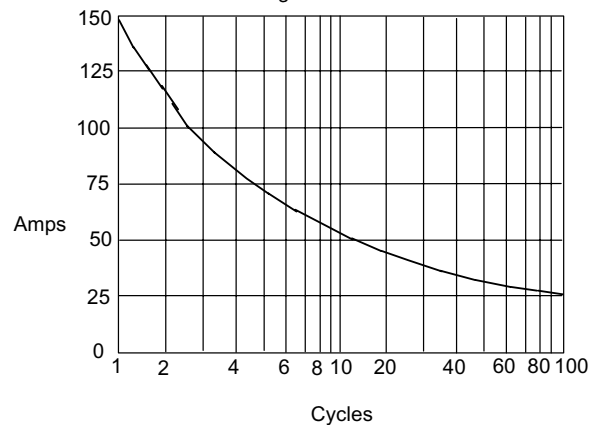
Instantaneous Reverse Leakage Current - mA  
Percent Of Rated Peak Reverse Voltage - Volts%

Figure 3  
Forward Derating Curve



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

Figure 4  
Peak Forward Surge Current



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



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## Ordering Information

Device	Packing
(Part Number)-BP	Bulk;1Kpcs/Box

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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