



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
- Low Forward Voltage Drop
- High Current Capability, High Efficiency
- Marking : type number
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

### Maximum Ratings

- Mounting Torque: 5 in-lbs Maximum
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

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

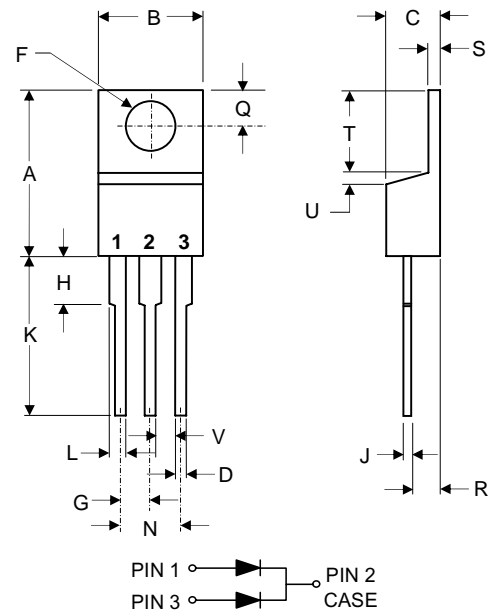
### Electrical Characteristics @ 25°C Unless Otherwise Specified

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	$V_F$	.70V .80V .85V .84V .95V .95V .72V .85V .85V	$I_{FM} = 10A;$ $T_A = 25^\circ\text{C} *$ $I_{FM} = 20A;$ $T_A = 25^\circ\text{C} *$ $I_{FM} = 20A;$ $T_A = 125^\circ\text{C} *$
2020CT-2045CT			
2060CT			
2080CT-20100CT			
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	0.1mA 0.15mA 50mA 150mA	$T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$
2020CT~2045CT			
2060CT~20100CT			
2020CT~2045CT 2060CT~20100CT			

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

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

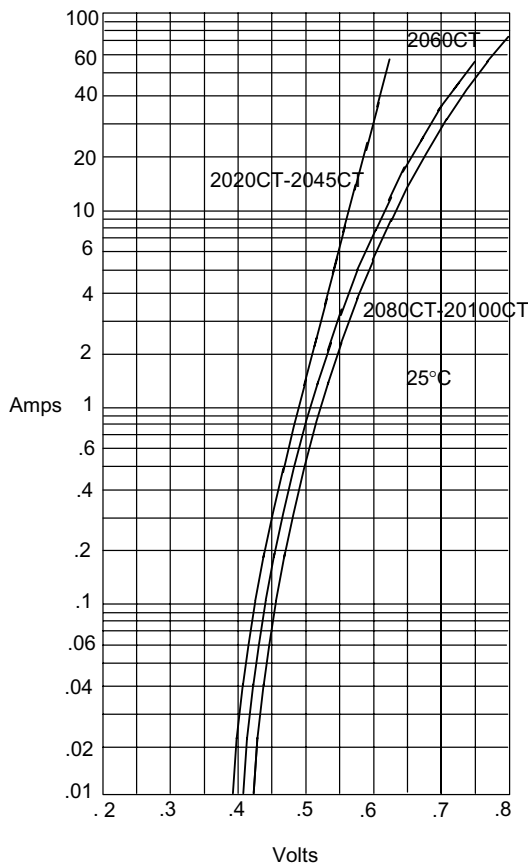
### TO-220AB



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	-----	

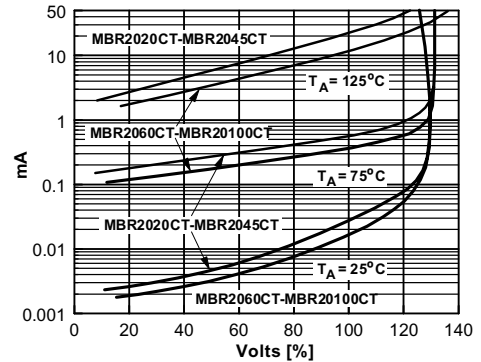
# MBR2020CT thru MBR20100CT

Figure 1  
Typical Forward Characteristics



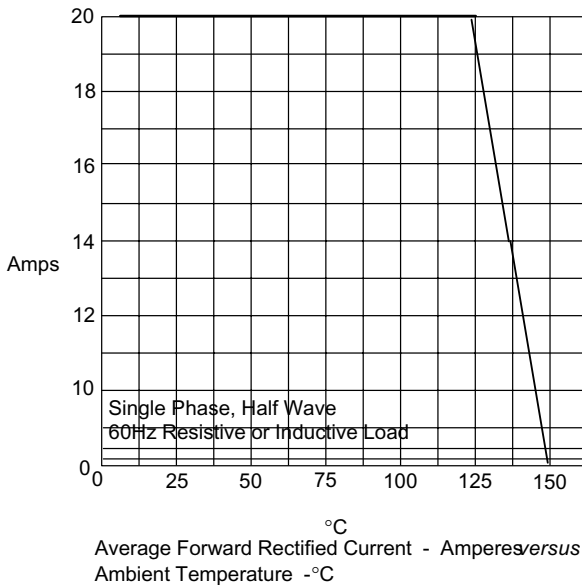
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
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Typical Reverse Characteristics



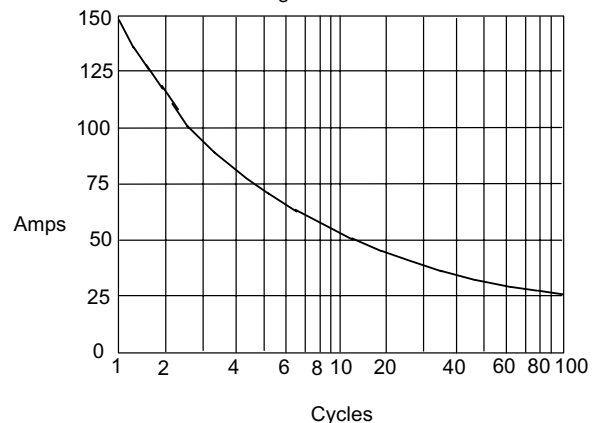
Instantaneous Reverse Leakage Current - mA  
Percent Of Rated Peak Reverse Voltage - Volts%

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

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