

MCC

Micro Commercial Components



Micro Commercial Components
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MBR2020CT

THRU MBR20100CT

Features

- Metal 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

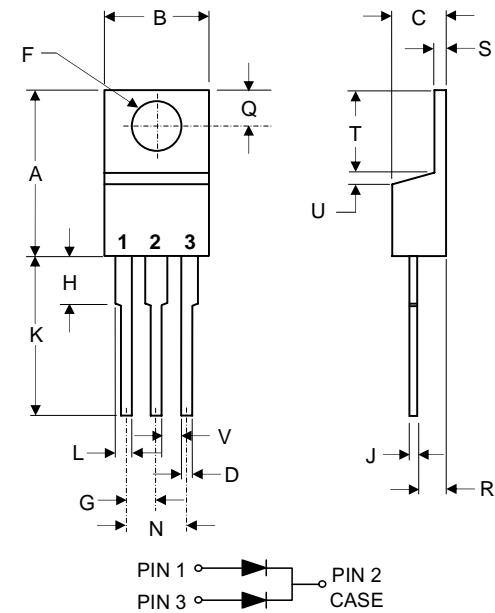
Average Forward Current	$I_{F(AV)}$	20 A	$T_A = 120^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F		
2020CT-2045CT		.70V	$I_{FM} = 10\text{A}; T_A = 25^\circ\text{C} *$
2060CT		.80V	
2080CT-20100CT		.85V	
2020CT-2045CT		.84V	$I_{FM} =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

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

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

**20 Amp
Schottky
Barrier Rectifier
20 to 100 Volts**

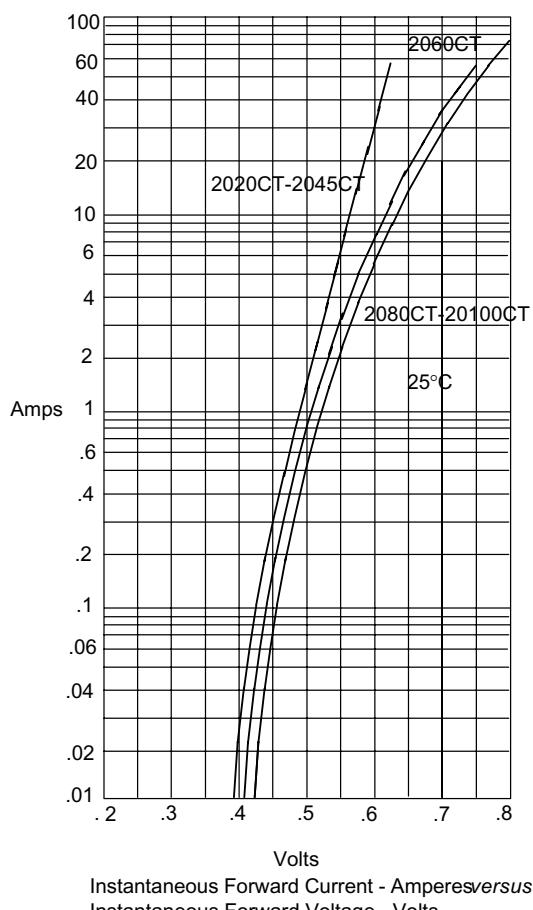
TO-220AB



DIMENSIONS					NOTE
DIM	INCHES		MM		
	MIN	MAX	MIN	MAX	
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	Ø
G	.190	.210	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	-----	

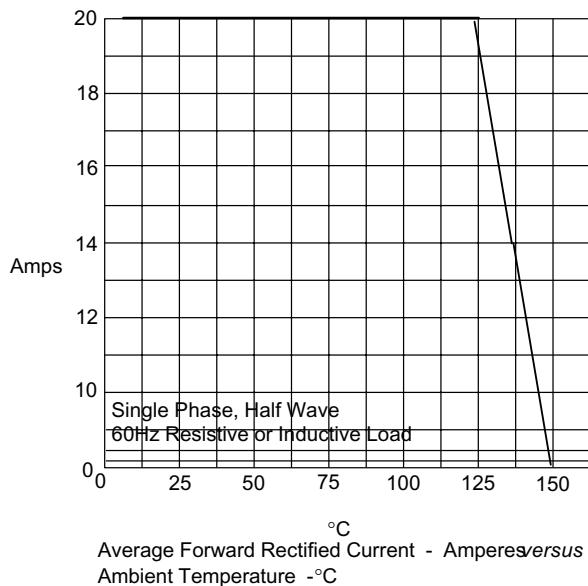
MBR2020CT thru MBR20100CT

Figure 1
Typical Forward Characteristics



Instantaneous Forward Current - Amperesversus
Instantaneous Forward Voltage - Volts

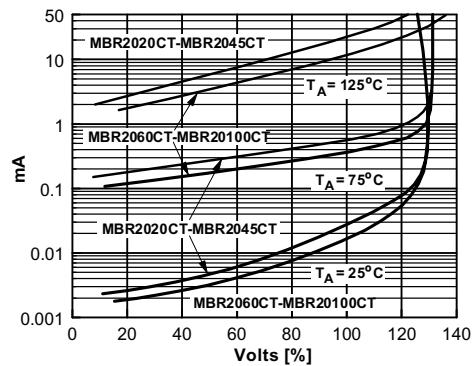
Figure 3
Forward Derating Curve



Average Forward Rectified Current - Amperesversus
Ambient Temperature - °C

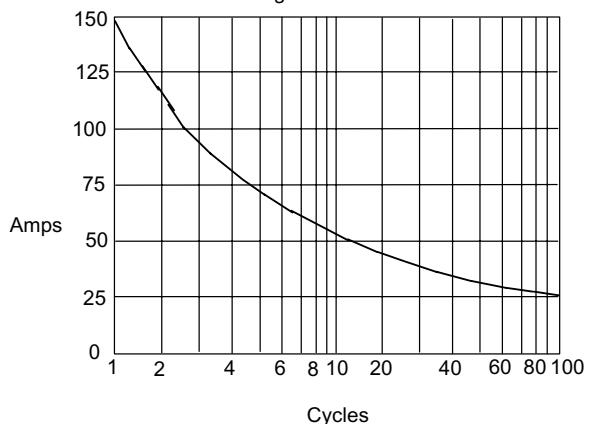
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Figure 2
Micro Commercial Components
Typical Reverse Characteristics



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

Figure 4
Peak Forward Surge Current



Peak Forward Surge Current - Amperesversus
Number of Cycles at 60Hz - Cycles

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Ordering Information

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

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