



Micro Commercial Components

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# MBR1520CT THRU MBR15100CT

## 15 Amp Schottky Barrier Rectifier 20 to 100 Volts

### Features

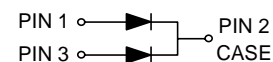
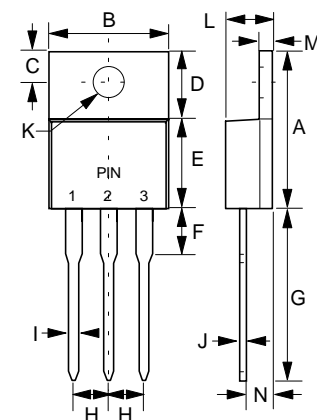
- Meatl of Silicon Rectifier, Majority Conduction
- Guard ring for transient protection
- Low Forward Voltage Drop
- High Current Capability, High Efficiency
- Marking : type number
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

### Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +175°C

MCC Catalog Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR1520CT	20V	14V	20V
MBR1530CT	30V	21V	30V
MBR1535CT	35V	24.5V	35V
MBR1540CT	40V	28V	40V
MBR1545CT	45V	31.5V	45V
MBR1560CT	60V	42V	60V
MBR1580CT	80V	56V	80V
MBR15100CT	100V	70V	100V

### TO-220AB



#### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.100	.135	2.54	3.43	
D	.230	.270	5.84	6.86	
E	.380	.420	9.65	10.67	
F	-----	.250	-----	6.35	
G	.500	.580	12.70	14.73	
H	.090	.110	2.29	2.79	
I	.020	.045	0.51	1.14	
J	.012	.025	0.30	0.64	
K	.139	.161	3.53	4.09	∅
L	.140	.190	3.56	4.83	
M	.045	.055	1.14	1.40	
N	.080	.115	2.03	2.92	

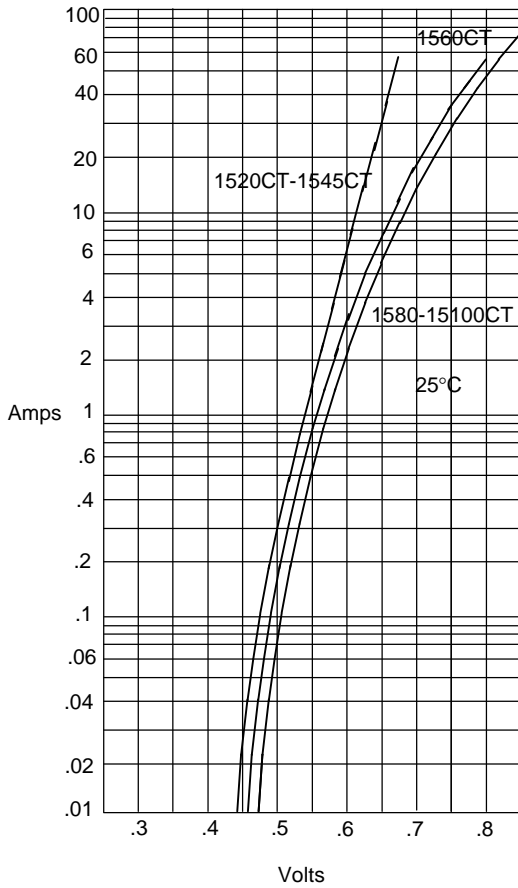
### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	15 A	$T_C = 125^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	150A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	.84V .90V .95V	$I_{FM} = 15A;$ $T_J = 25^\circ\text{C}$ $I_{FM} = 16A$
1520CT-45CT			
1560CT 1580CT-100CT			
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	0.1mA 1.0mA 15mA 50mA 100mA	$T_J = 25^\circ\text{C}$
1520CT-45CT			
1560CT-100CT			
1520CT-45CT			$T_J = 125^\circ\text{C}$
1560CT 1580CT-100CT			

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

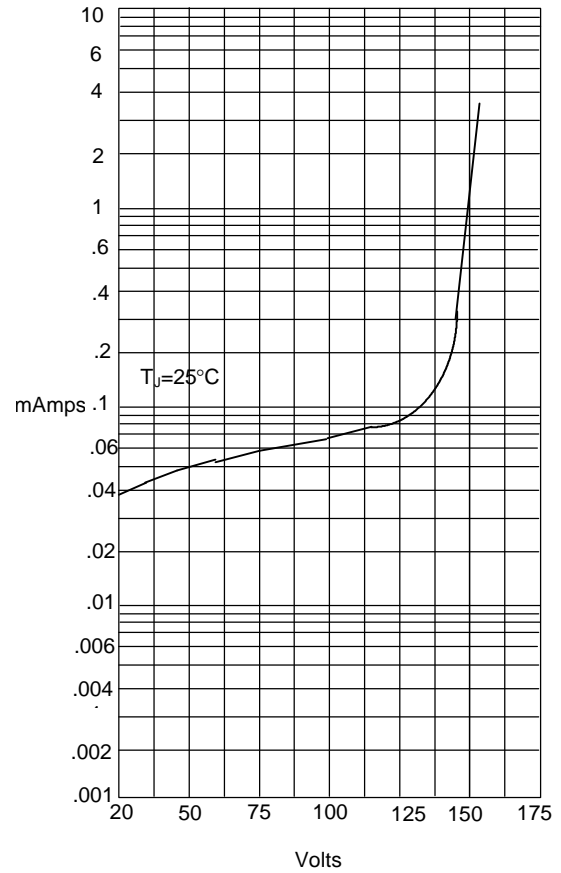
MBR1520CT thru MBR15100CT

Figure 1  
Typical Forward Characteristics



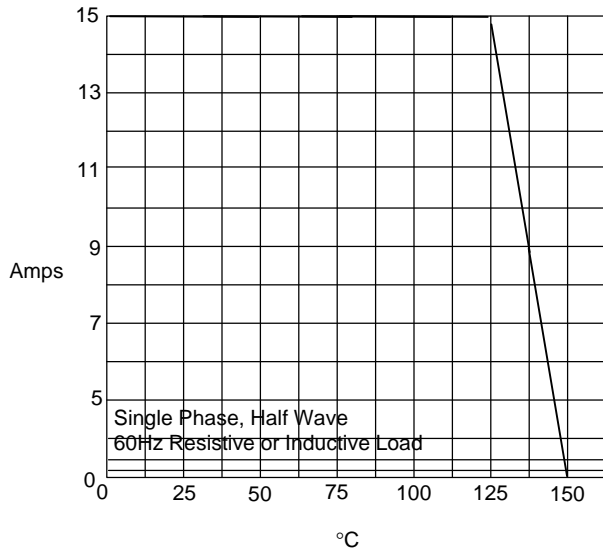
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



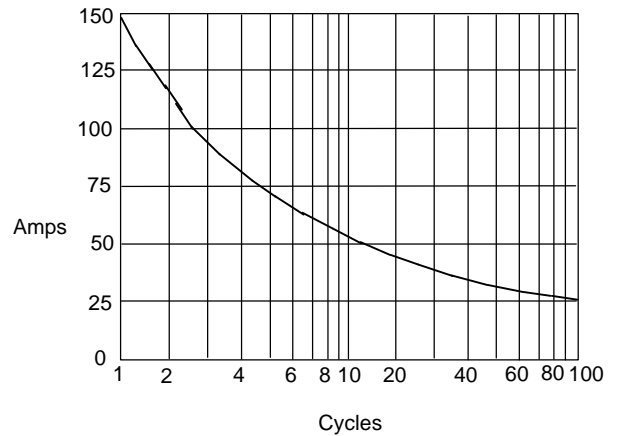
Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

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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