



Micro Commercial Components
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MBRB1520CT THRU MBRB15100CT

Features

- Meatl of Silicon Rectifier, Majority Conduction
- Guard ring for transient protection
- Low Forward Voltage Drop
- High Current Capability, High Efficiency
- Low Power Loss

Maximum Ratings

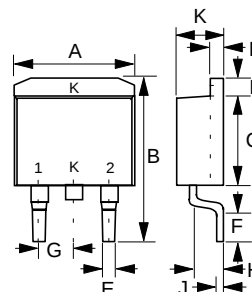
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +175°C

MCC Catalog Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRB1520CT	20V	14V	20V
MBRB1530CT	30V	21V	30V
MBRB1535CT	35V	24.5V	35V
MBRB1540CT	40V	28V	40V
MBRB1545CT	45V	31.5V	45V
MBRB1560CT	60V	42V	60V
MBRB1580CT	80V	56V	80V
MBRB15100CT	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	15 A	$T_C = 105^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, half sine
Maximum Instantaneous Forward Voltage 1520CT-45CT 1560CT 1580CT-100CT	V_F	.84V .75V .92V	$I_{FM} = 15A;$ $I_{FM} = 7.5A$ $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage 1520CT-45CT 1560CT-100CT 1520CT-45CT 1560CT 1580CT-100CT	I_R	0.1mA 1.0mA 15mA 50mA 100mA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$

D²PAK



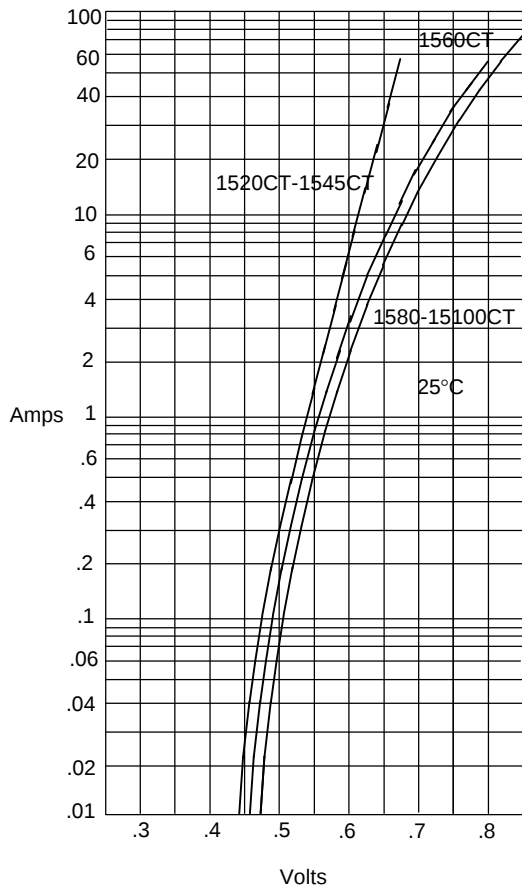
PIN 1 PIN 2 K HEATSINK

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.380	.421	9.65	10.69	
B	.575	.625	14.60	15.88	
C	.325	.364	8.25	9.25	
D	.045	.055	1.14	1.40	
E	.020	.045	0.51	1.14	
F	.090	.110	2.29	2.79	
G	.090	.110	2.29	2.79	
H	.080	.115	2.03	2.92	
I	.045	.055	1.14	1.40	
J	.012	.025	0.30	0.64	
K	.172	.190	4.37	4.83	

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

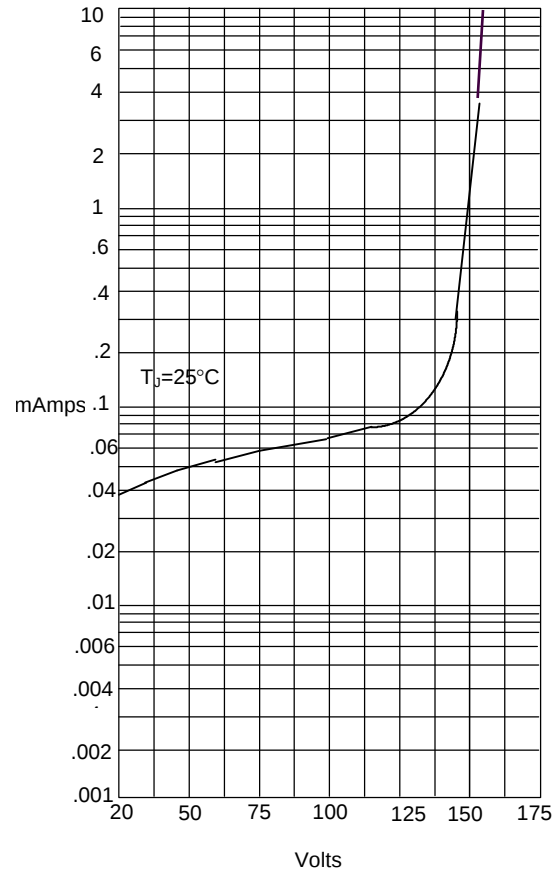
MBRB1520CT thru MBRB15100CT

Figure 1
Typical Forward Characteristics



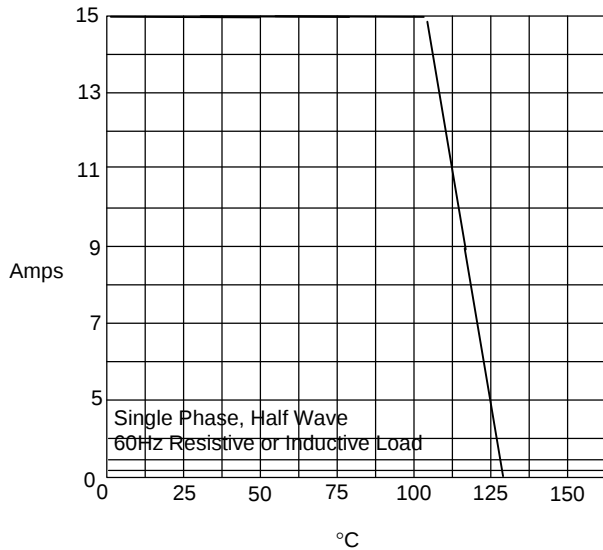
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



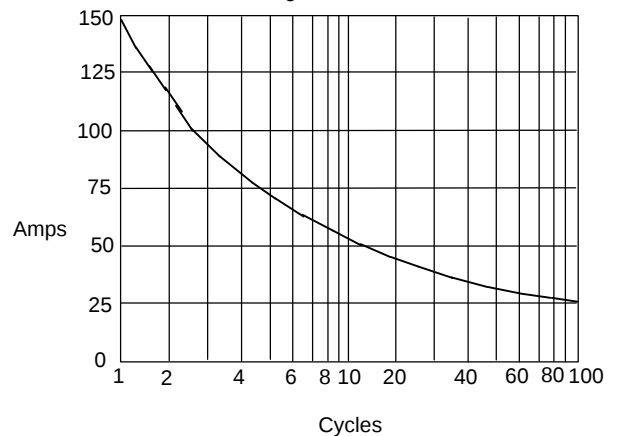
Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3
Forward Derating Curve



Average Forward Rectified Current - Amperes *versus*
Case Temperature - $^\circ\text{C}$

Figure 4
Peak Forward Surge Current



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