

TM

# MBRB1520CT THRU MBRB15100CT

## Features

- Guard ring for transient protection
- Low Forward Voltage Drop
- High Current Capability, High Efficiency
- Low Power Loss
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Marking : type number

## 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

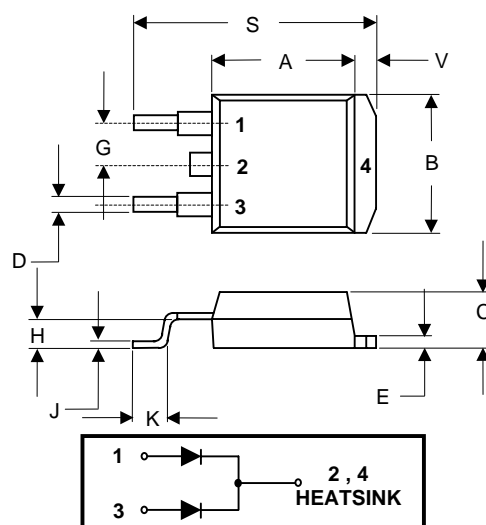
## Electrical Characteristics @ 25°C Unless Otherwise Specified

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	$V_F$	1520CT-45CT 1560CT 1580CT-100CT	$I_{FM} = 15\text{A};$ $I_{FM} = 7.5\text{A}$ $T_J = 25^\circ\text{C}$	
1520CT-45CT				.84V
1560CT				.75V
1580CT-100CT	.92V			
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				
1560CT				
1580CT-100CT		$T_J = 125^\circ\text{C}$		

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

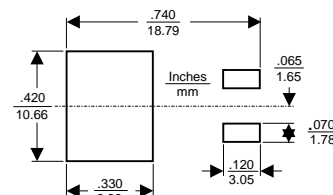
## 15 Amp Schottky Barrier Rectifier 20 to 100 Volts

### D<sup>2</sup>-PACK



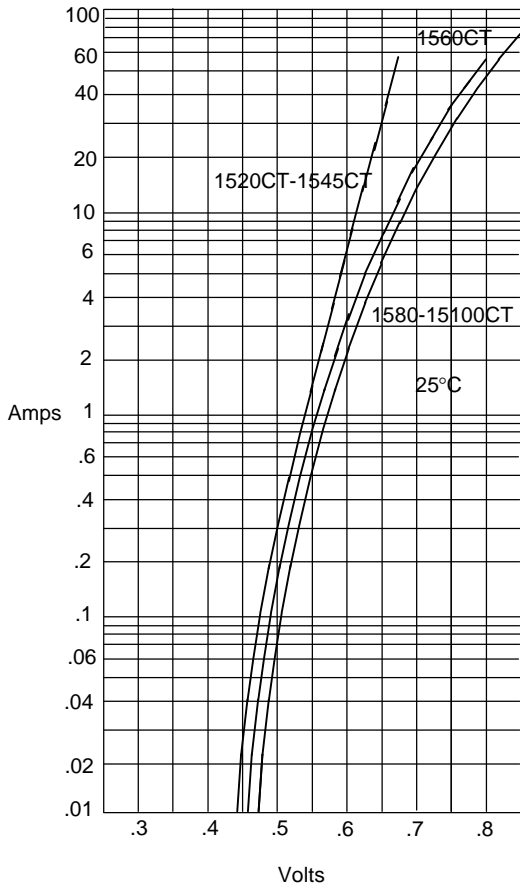
DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.320	.359	8.13	9.14	
B	.380	.411	9.65	10.45	
C	.160	.190	4.06	4.83	
D	.020	.035	0.51	0.89	
E	.045	.055	1.14	1.40	
G	.095	.105	2.41	2.67	
H	.096	.120	2.43	3.03	
J	.014	.021	0.35	0.53	
K	.090	.110	2.29	2.79	
S	.575	.625	14.60	15.80	
V	.045	.055	1.14	1.40	

### SUGGESTED SOLDER PAD LAYOUT



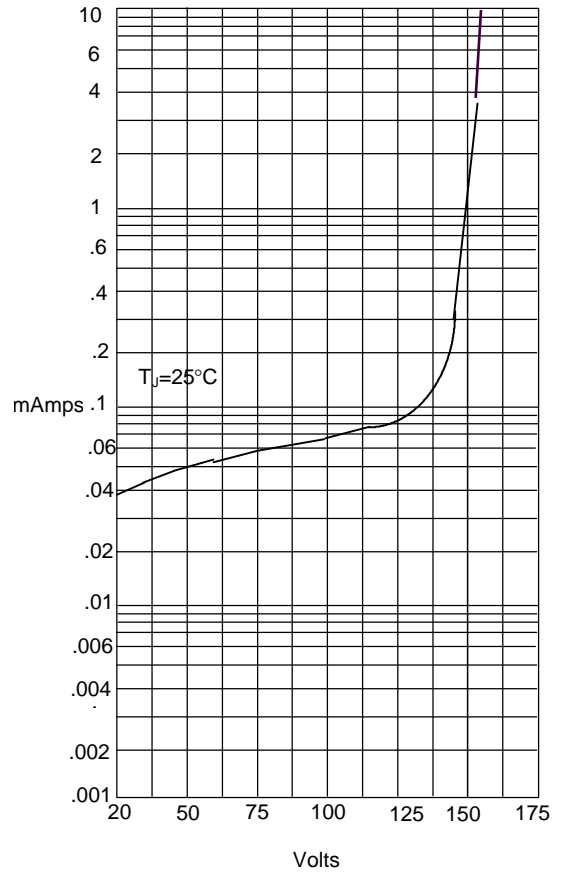
# MBRB1520CT thru MBRB15100CT

Figure 1  
Typical Forward Characteristics



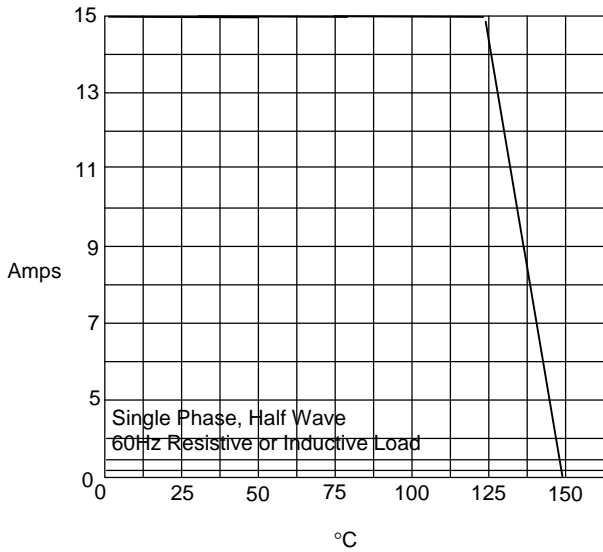
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



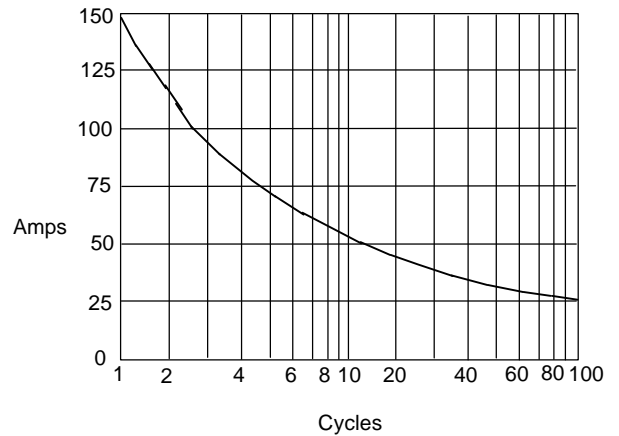
Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Case Temperature - °C

Figure 4  
Peak Forward Surge Current



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

