



Micro Commercial Components  
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# MBR1620CT THRU MBR1660CT

## 16 Amp Schottky Barrier Rectifier 20 to 60 Volts

### Features

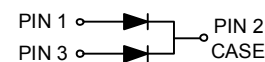
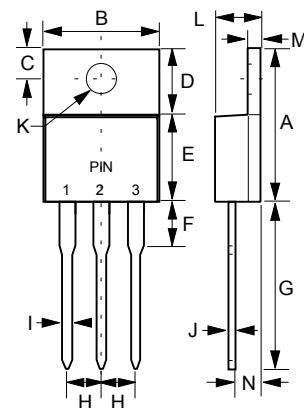
- Metal of siliconrectifier, majonty carrier conducton
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability

### Maximum Ratings

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

Microsemi Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR1620CT	MBR1620CT	20V	14V	20V
MBR1630CT	MBR1630CT	30V	21V	30V
MBR1635CT	MBR1635CT	35V	24.5V	35V
MBR1640CT	MBR1640CT	40V	28V	40V
MBR1645CT	MBR1645CT	45V	31.5V	45V
MBR1660CT	MBR1660CT	60V	42V	60V

### TO-220AB



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

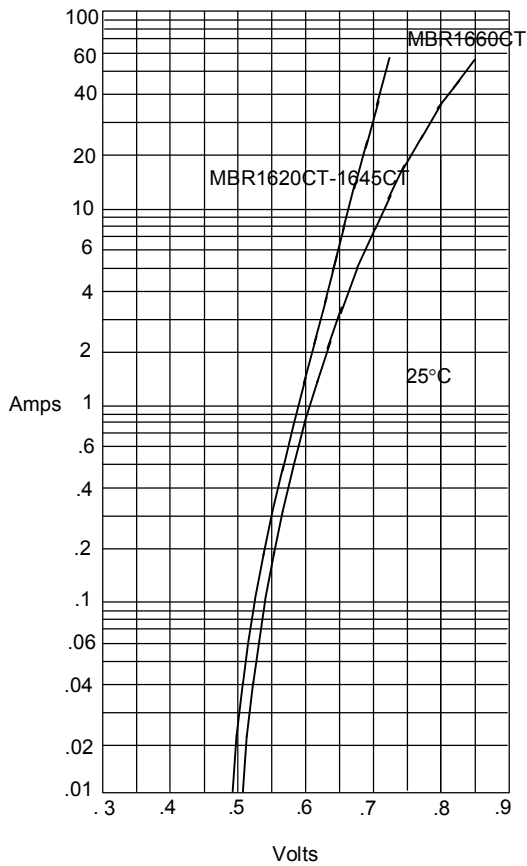
Average Forward Current	$I_{F(AV)}$	16A	$T_C = 100^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	125A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element 1620CT-1645CT 1660CT 1620CT-1645CT 1660CT	$V_F$	.70V .80V .57V .70V	$I_{FM} = 8A$ $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	0.1mA 50mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Typical Junction Capacitance 1620CT-1645CT 1660CT	$C_J$	300pF 400pF	Measured at 1.0MHz, $V_R=4.0V$

DIM	DIMENSIONS				NOTE
	INCHES		MM		
	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	

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

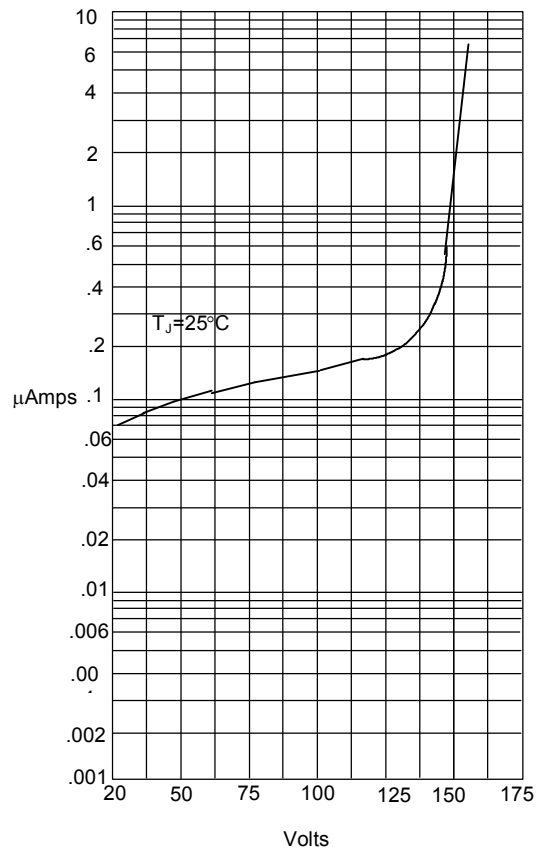
# MBR1620CT thru MBR1660CT

Figure 1  
Typical Forward Characteristics



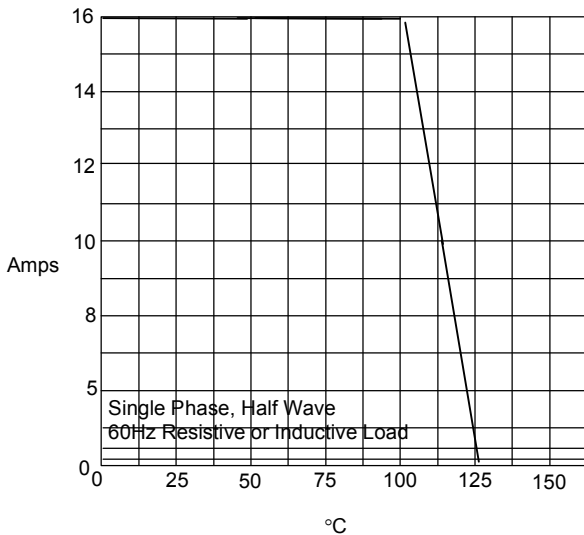
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



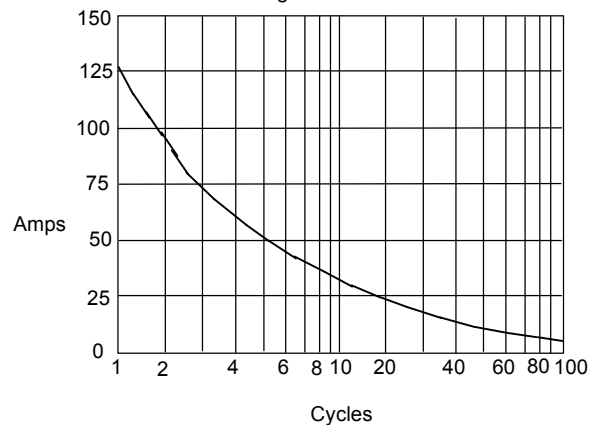
Instantaneous Reverse Leakage Current - MicroAmperes *versus*  
Percent Of Rated Peak Reverse Voltage - Volts

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