



Micro Commercial Components



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# MBRB1620CT THRU MBRB1660CT

## 16 Amp Schottky Barrier Rectifier 20 to 60 Volts

### Features

- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Metal of Silicon Rectifier, Majority Conductor
- Guard ring for transient protection
- Low Forward Voltage Drop
- High Current Capability, High Efficiency
- Low Power Loss
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

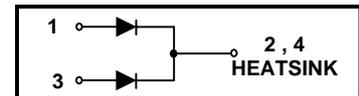
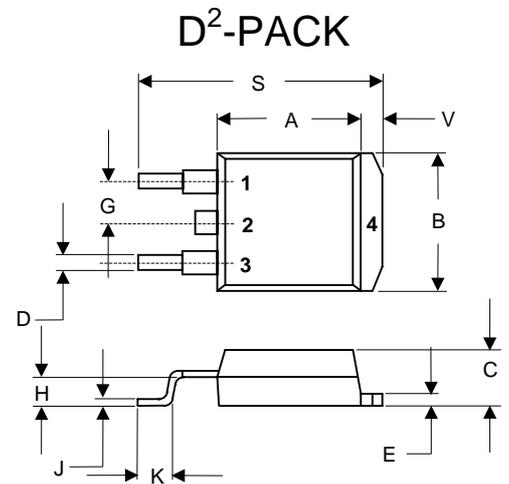
### Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C

MCC Catalog Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRB1620CT	20V	14V	20V
MBRB1630CT	30V	21V	30V
MBRB1635CT	35V	24.5V	35V
MBRB1640CT	40V	28V	40V
MBRB1645CT	45V	31.5V	45V
MBRB1660CT	60V	42V	60V

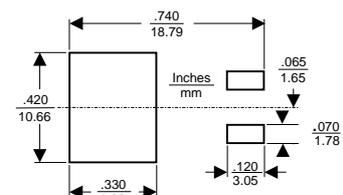
### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	16A	$T_C = 90^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	150A	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	Measured at 1.0MHz, $V_R=4.0V$



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
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

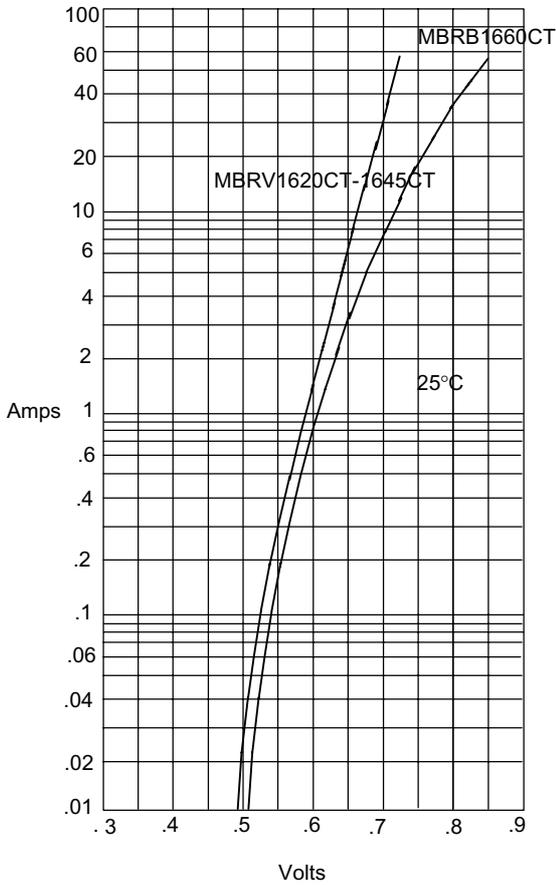


\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

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

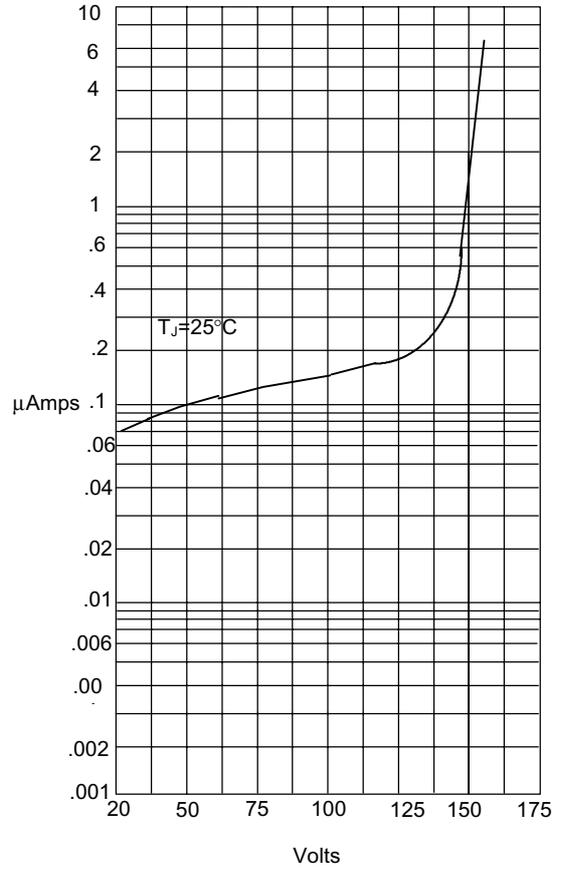
[www.mccsemi.com](http://www.mccsemi.com)

Figure 1  
Typical Forward Characteristics



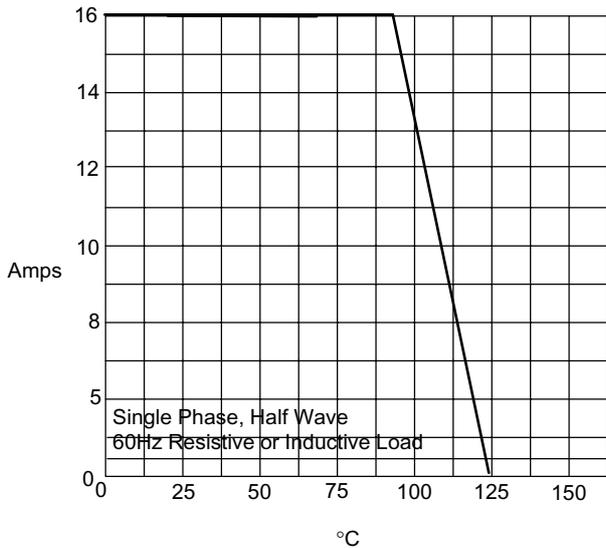
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



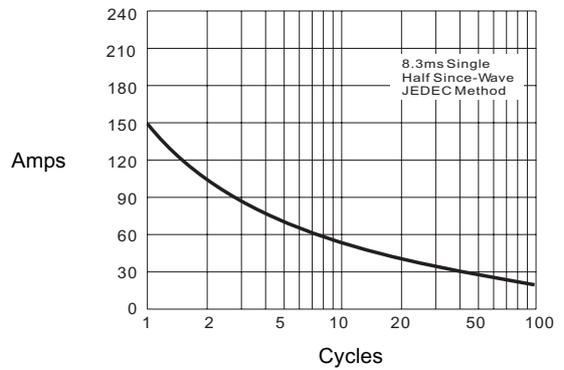
Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

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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### Ordering Information :

Device	Packing
Part Number-BP	Tube: 1Kpcs/Box

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