



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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### MBRB3030CT **THRU** MBRB3060CT

**30 Amp Schottky** 

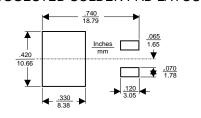
## **Barrier Rectifier** 30 to 60 Volts

# D<sup>2</sup>-PACK D С

DIMENSIONS						
DIM	INCHES		MM		NOTE	
	MIN	MAX	MIN	MAX	INOTE	
Α	.320	.359	8.13	9.14		
В	.380	.411	9.65	10.45		
С	.160	.190	4.06	4.83		
D	.020	.035	0.51	0.89		
Е	.045	.055	1.14	1.40		
G	.095	.105	2.41	2.67		
Н	.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		

HEATSINK

#### SUGGESTED SOLDER PAD LAYOUT



#### Features

- Halogen free available upon request by adding suffix "-HF"
- Guard ring for transient protection
- Low Power Loss, High Efficiency
- High Current Capability
- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Marking: type number

- Maximum Ratings
  Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Operating Junction Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRB3030CT	30V	21V	30V
MBRB3040CT	40V	28V	40V
MBRB3045CT	45V	31.5V	45V
MBRB3060CT	60V	42V	60V

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

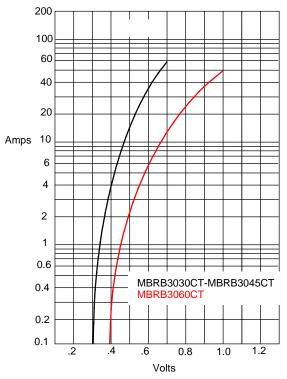
Average Forward Current	I <sub>F(AV)</sub>	30A	T <sub>C</sub> = 110°C			
Peak Forward Surge Current	I <sub>FSM</sub>	250A	8.3ms, half sine			
Maximum Instantaneous Forward Voltage MBRB3030CT-3045CT MBRB3060CT	$V_{F}$	0.55V 0.72V	I <sub>FM</sub> = 15A; T <sub>C</sub> = 25°C			
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	1.0mA 75mA	$T_C = 25^{\circ}C$ $T_C = 125^{\circ}C$			
Typical Junction Capacitance	CJ	420pF	Measured at 1.MHz, V <sub>R</sub> =4V			

<sup>\*</sup>Pulse Test: Pulse Width 300µsec, Duty Cycle 2%

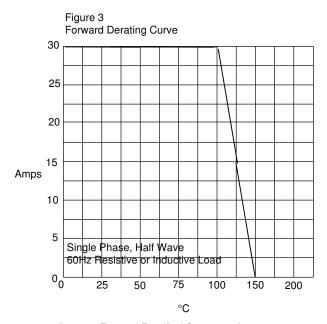
Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7.

#### MBRB3030CT thru MBRB3060CT

Figure 1 Typical Forward Characteristics



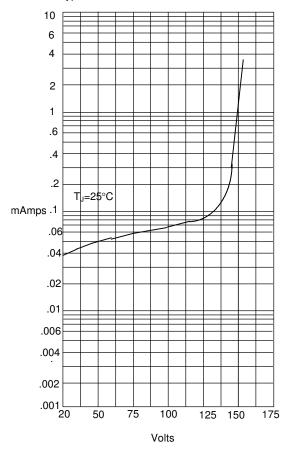
Instantaneous Forward Current - Amperes *versus* Instantaneous Forward Voltage - Volts



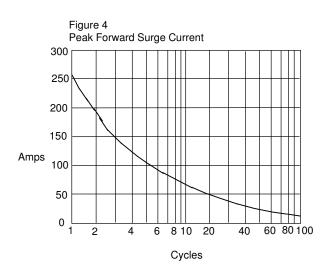
Average Forward Rectified Current - Amperes/ersus Case Temperature -°C



Figure 2 **Micro Commercial Components** Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperesversus Percent Of Rated Peak Reverse Voltage - Volts



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



#### **Micro Commercial Components**

#### **Ordering Information:**

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

Note: Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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