



Micro Commercial Components



Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

MBRB3030CT THRU MBRB3060CT

30 Amp Schottky Barrier Rectifier 30 to 60 Volts

Features

- Guard ring for transient protection
- Low Forward Voltage Drop
- High Current Capability, High Efficiency
- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking : type number
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information

Maximum Ratings

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

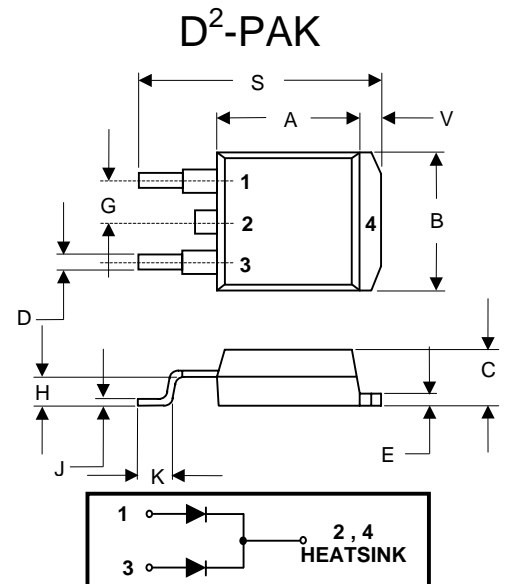
| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| MBRB3030CT | 30V | 21V | 30V |
| MBRB3040CT | 40V | 28V | 40V |
| MBRB3045CT | 45V | 31.5V | 45V |
| MBRB3060CT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

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|--|-------------|----------------|---|
| Average Forward Current | $I_{F(AV)}$ | 30A | $T_C = 110^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 250A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage MBRB3030CT-3045CT MBRB3060CT | V_F | 0.55V 0.72V | $I_{FM} = 15A;$ $T_C = 25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 1.0mA 75mA | $T_C = 25^\circ\text{C}$ $T_C = 125^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 420pF | Measured at 1.MHz, $V_R=4V$ |

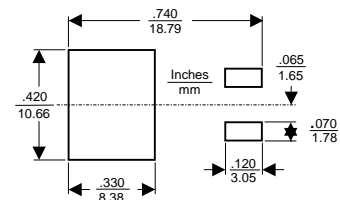
*Pulse Test: Pulse Width 300µsec, Duty Cycle 2%

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



| 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



MBRB3030CT thru MBRB3060CT

Figure 1
Typical Forward Characteristics

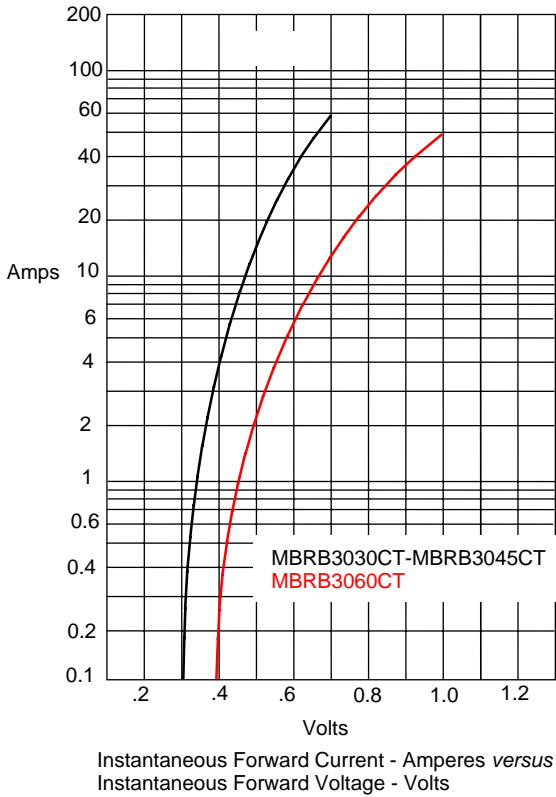


Figure 2
Typical Reverse Characteristics

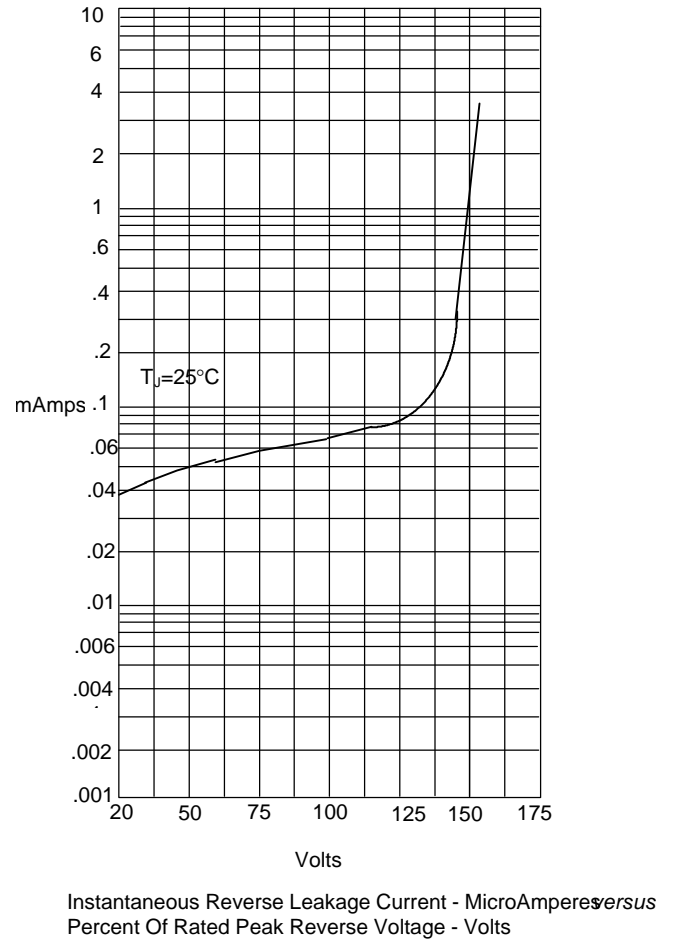


Figure 3
Forward Derating Curve

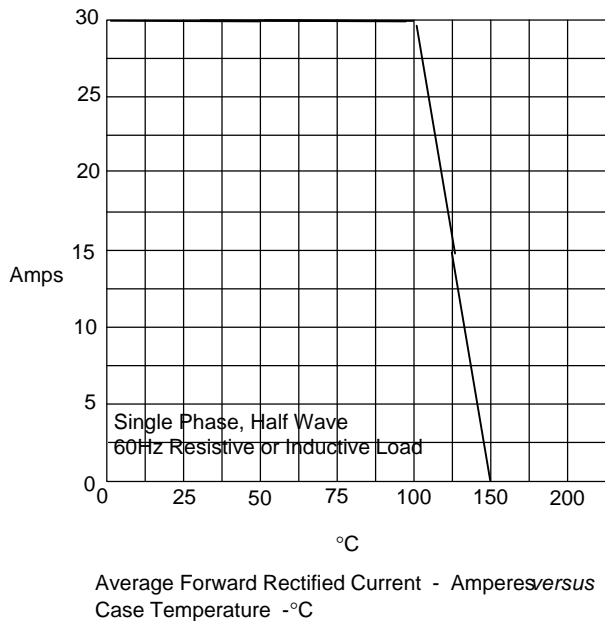
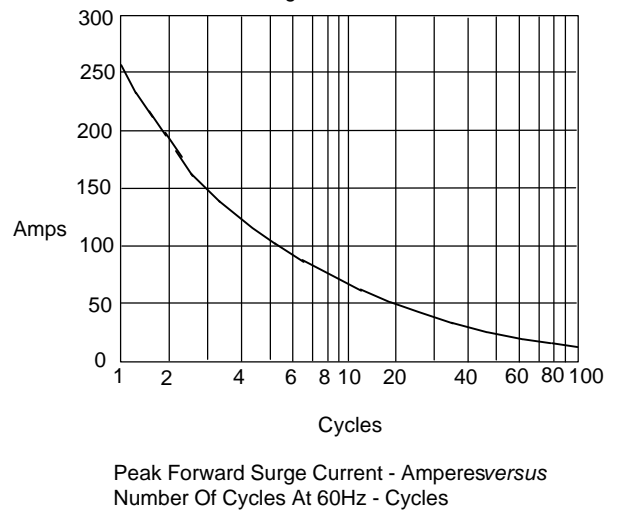


Figure 4
Peak Forward Surge Current





Micro Commercial Components

Ordering Information :

| Device | Packing |
|----------------|------------------------|
| Part Number-TP | Tape&Reel: 800pcs/Reel |
| Part Number-BP | Tube: 5Kpcs/Ctn |

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

*****IMPORTANT NOTICE*****

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp .** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp .** and all the companies whose products are represented on our website, harmless against all damages.

*****LIFE SUPPORT*****

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

*****CUSTOMER AWARENESS*****

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.