



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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## MBRB1030CT **THRU** MBRB1060CT

# **10 Amp Schottky**

# **Barrier Rectifier** 30 to 60 Volts

# D<sup>2</sup>-PACK С

DIIVI		INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE	
Α	.320	.359	8.13	9.14		
В	.380	.411	9.65	10.45		
O	.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		
W	0	.006	0	0.15	ĺ	
SUGGESTED SOLDER PAD LAYOUT						
Inches						
120						
	B C D E G H J K S V	B .380 C .160 D .020 E .045 G .095 H .096 J .014 K .090 S .575 V .045 W 0	B .380 .411 C .160 .190 D .020 .035 E .045 .055 G .095 .105 H .096 .120 J .014 .021 K .090 .110 S .575 .625 V .045 .055 W 0 .006 SUGGESTED SOL	B .380 .411 9.65 C .160 .190 4.06 D .020 .035 0.51 E .045 .055 1.14 G .095 .105 2.41 H .096 .120 2.43 J .014 .021 0.35 K .090 .110 2.29 S .575 .625 14.60 V .045 .055 1.14 W 0 .006 0 SUGGESTED SOLDER F	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 W 0 .006 0 0.15 SUGGESTED SOLDER PAD LA	

DIMENSIONS

### **Features**

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

## **Maximum Ratings**

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

MCC Catalog Number	Maximum Reccurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRB1030CT	30V	21V	30V
MBRB1035CT	35V	24.5V	35V
MBRB1040CT	40V	28V	40V
MBRB1045CT	45V	31.5V	45V
MBRB1050CT	50V	35V	50V
MBRB1060CT	60V	42V	60V

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

		<u> </u>	шот шос оросписи
Average Forward Current	$I_{F(AV)}$	10 A	T <sub>C</sub> = 95°C
Peak Forward Surge Current	I <sub>FSM</sub>	125A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_{F}$	.55V	I <sub>FM</sub> = 5A; T <sub>J</sub> = 25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	0.5mA	T <sub>J</sub> = 25°C
Typical Junction Capacitance	С	200pF	Measured at 1.0MHz, V <sub>R</sub> =4.0V

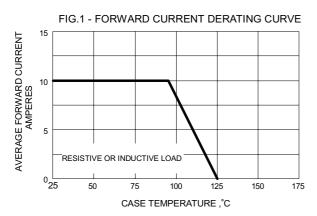
Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7.

<sup>\*</sup>Pulse Test: Pulse Width 300µsec, Duty Cycle 1%





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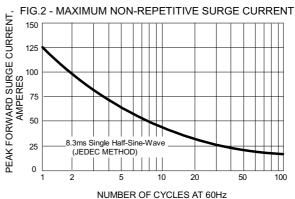


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

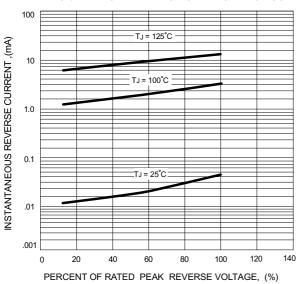


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

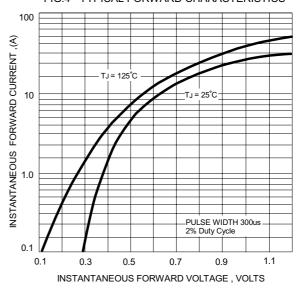
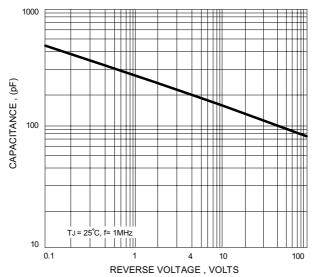


FIG.5 - TYPICAL JUNCTION CAPACITANCE





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#### Ordering Information:

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

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