

# MBR1030CT THRU MBR1060CT

## 10 Amp Schottky Barrier Rectifier 30-60 Volts

### Features

- Metal of silicon rectifier, majority carrier conduction
- Halogen free available upon request by adding suffix "-HF"
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability
- 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

### Maximum Ratings

- Mounting Torque: 5 in-lbs Maximum
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +175°C

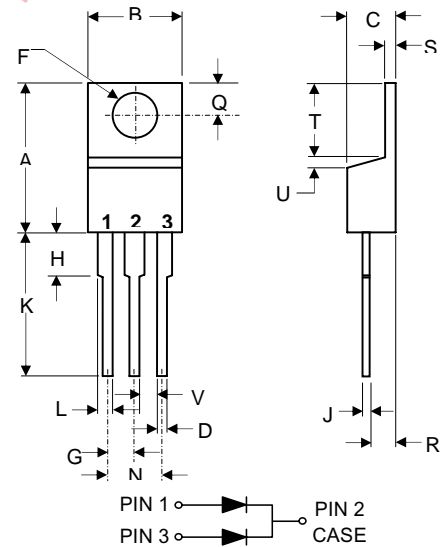
MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR1030CT	MBR1030CT	30V	21V	30V
MBR1035CT	MBR1035CT	35V	24.5V	35V
MBR1040CT	MBR1040CT	40V	28V	40V
MBR1045CT	MBR1045CT	45V	31.5V	45V
MBR1050CT	MBR1050CT	50V	35V	50V
MBR1060CT	MBR1060CT	60V	42V	60V

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

Average Forward Current	$I_{F(AV)}$	10A	$T_C = 105^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	125A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element	$V_F$	.70V .80V .57V .65V	$I_{FM} = 5A$ $T_J = 25^\circ\text{C}$ $I_{FM} = 5A$ $T_J = 125^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	0.1mA 15mA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Typical Junction Capacitance	$C_J$	170pF 220pF	Measured at 1.0MHz, $V_R=4.0V$

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

### TO-220AB



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.140	.190	3.56	4.82	
D	.020	.045	0.51	1.14	
F	.139	.161	3.53	4.09	∅
G	.190	.110	2.29	2.79	
H	---	.250	---	6.35	
J	.012	.025	0.30	0.64	
K	.500	.580	12.70	14.73	
L	.045	.060	1.14	1.52	
N	.190	.210	4.83	5.33	
Q	.100	.135	2.54	3.43	
R	.080	.115	2.04	2.92	
S	.045	.055	1.14	1.39	
T	.230	.270	5.84	6.86	
U	-----	.050	-----	1.27	
V	.045	-----	1.15	-----	

**RATING AND CHARACTERISTIC CURVES**  
**MBR1030CT thru MBR1060CT**

FIG.1 - FORWARD CURRENT DERATING CURVE

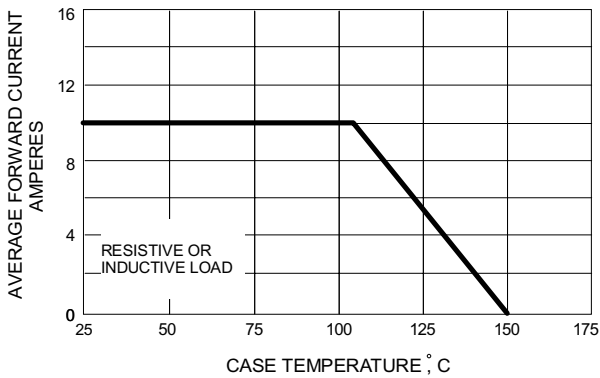


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

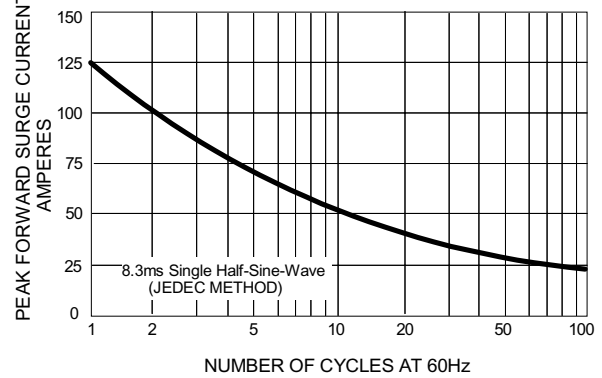


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

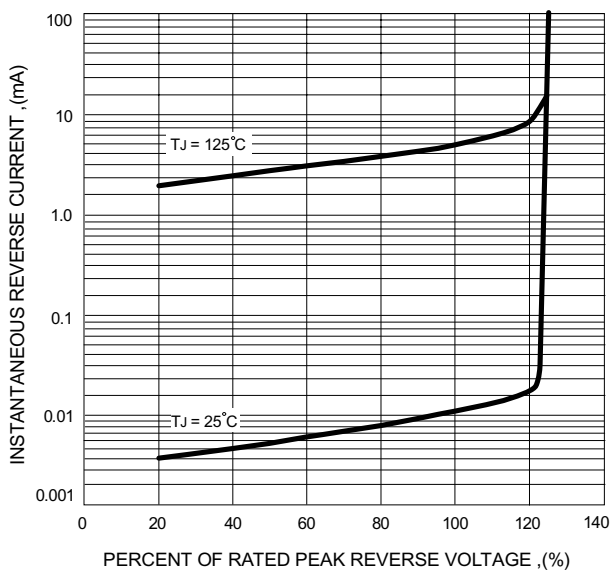


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

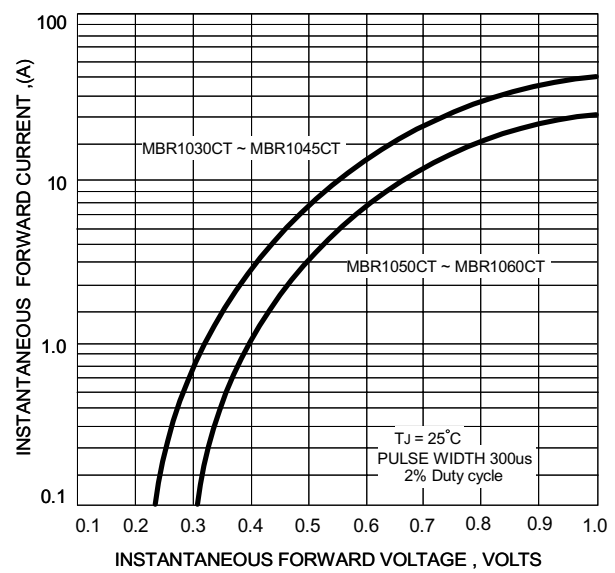
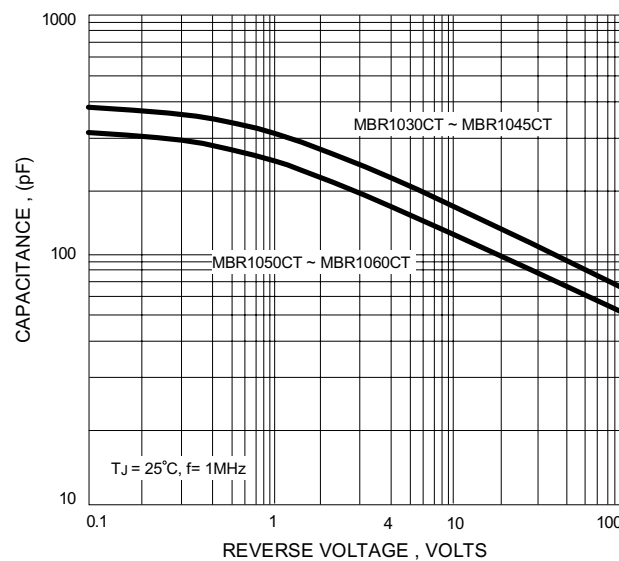


FIG.5 - TYPICAL JUNCTION CAPACITANCE





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## Ordering Information

Device	Packing
(Part Number)-BP	Bulk;1Kpcs/Box

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

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