



Micro Commercial Components

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# MBR3030CT THRU MBR3060CT

## 30 Amp Schottky Barrier Rectifier 30 to 60 Volts

### Features

- 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)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Marking : type number

### Maximum Ratings

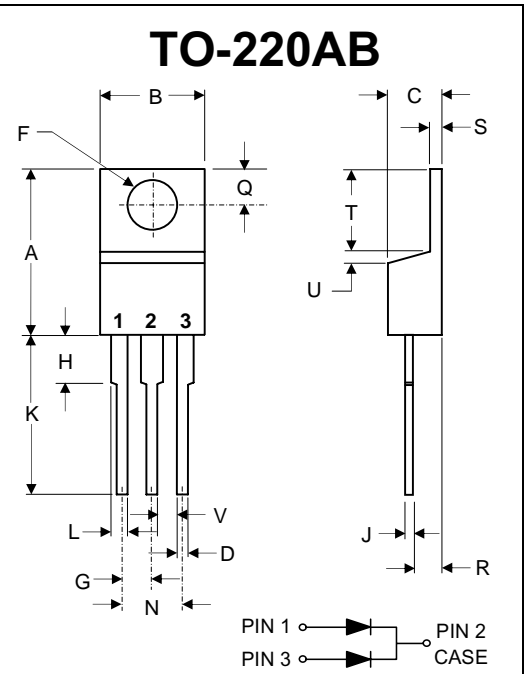
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +175°C

MCC Part Number	Maximum Rcurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR3030CT	30V	21V	30V
MBR3035CT	35V	24.5V	35V
MBR3040CT	40V	28V	40V
MBR3045CT	45V	31.5V	45V
MBR3050CT	50V	35V	50V
MBR3060CT	60V	42V	60V

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

Average Forward Current	$I_{F(AV)}$	30 A	$T_C = 100^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	200A	8.3ms, half sine
Maximum Instantaneous Forward Voltage MBR3030CT~3045CT	$V_F$	0.70V	$I_{FM}=15A ; T_J=25^\circ\text{C}$
		0.84V	$I_{FM}=30A ; T_J=25^\circ\text{C}$
		0.72V	$I_{FM}=30A ; T_J=125^\circ\text{C}$
Maximum Instantaneous Forward Voltage MBR3050CT~3060CT	$V_F$	0.80V	$I_{FM}=15A ; T_J=25^\circ\text{C}$
		0.95V	$I_{FM}=30A ; T_J=25^\circ\text{C}$
		0.85V	$I_{FM}=30A ; T_J=125^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	0.2 mA	$T_J = 25^\circ\text{C}$
Typical Junction Capacitance MBR3030CT-3045CT MBR3050CT-3060CT	$C_J$	450pF 400pF	Measured at 1.0MHz, $V_R=4.0V$

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



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
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	----	



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**RATING AND CHARACTERISTIC CURVES  
MBR3030CT thru MBR3060CT**

FIG.1 - FORWARD CURRENT DERATING CURVE

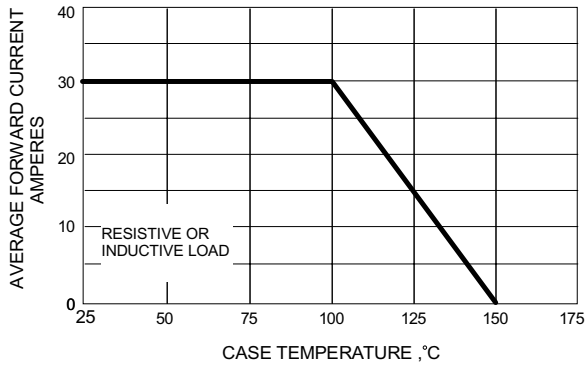


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

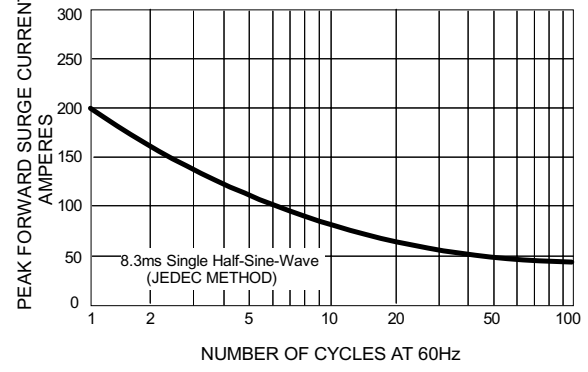


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

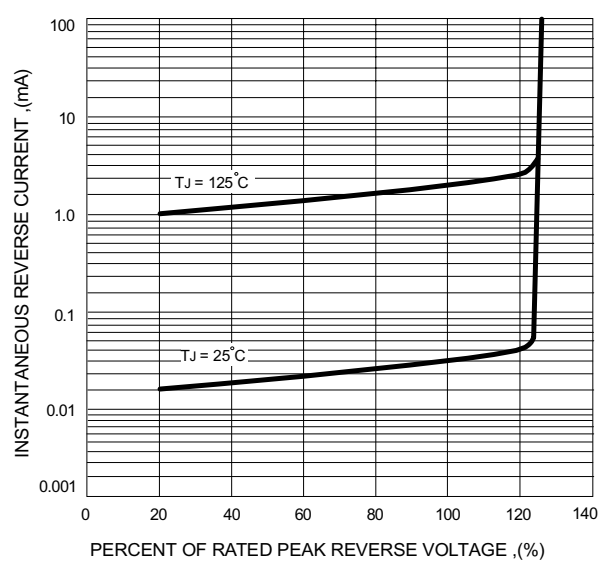


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

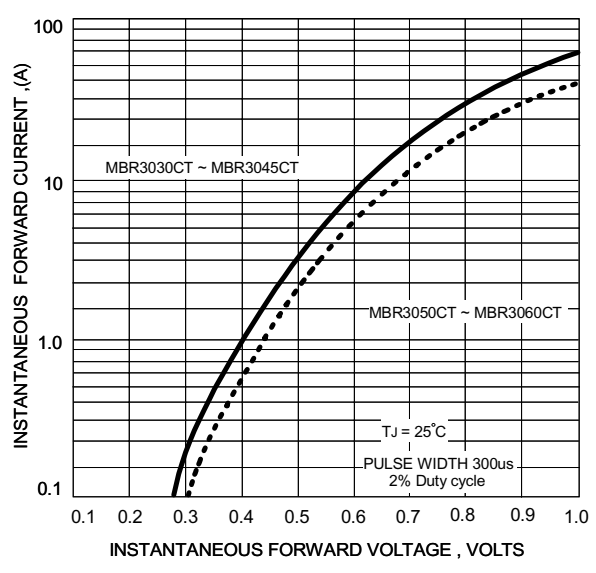
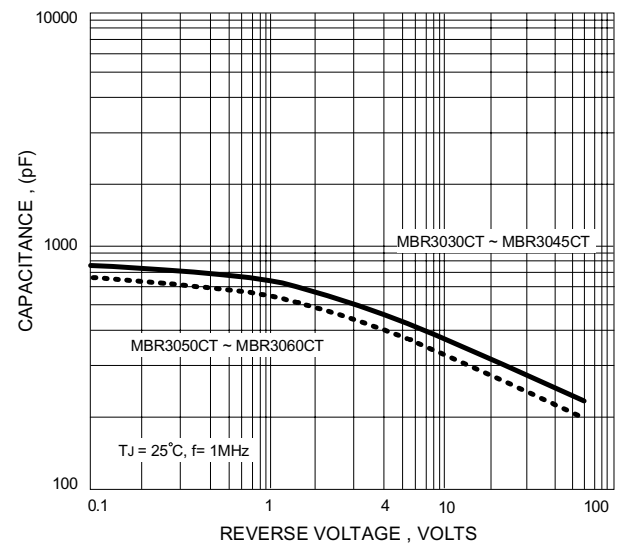


FIG.5 - TYPICAL JUNCTION CAPACITANCE





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## Ordering Information

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

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