



## MBRD1020CT Thru MBRD10100CT

### Features

- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Extremely Fast Switching
- Extremely Low Forward Drop.
- Lead Free Finish/Rohs Compliant ("P" Suffix designates Compliant. See ordering information)

### Maximum Ratings

- Operating Temperature( $T_J$ ): -65°C to +150°C
- Storage Temperature( $T_{STG}$ ): -65°C to +150°C

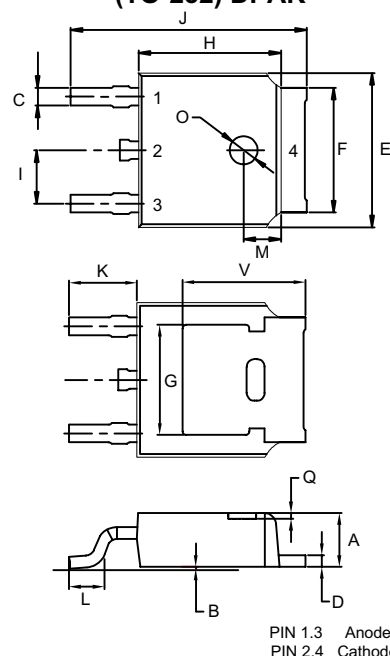
MCC Part Number	Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRD1020CT	20	14	20
MBRD1030CT	30	21	30
MBRD1045CT	45	32	45
MBRD1050CT	50	35	50
MBRD1060CT	60	42	60
MBRD1080CT	80	57	80
MBRD10100CT	100	71	100

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

Max average forward rectified current	$I_{AV}$	10A	
Max surge current	$I_{FSM}$	150A	8.3ms, half sine
Peak forward voltage MBRD1020CT-45CT MBRD1050CT-60CT MBRD1080CT MBRD10100CT	$V_{FM}$	0.65V 0.75V 0.80V 0.85V	$I_{FM} = 5.0A$
Peak reverse current MBRD1020CT-100CT MBRD1020CT-45CT MBRD1050CT-100CT	$I_{RM}$	0.5mA 50mA 25mA	$T_A = 25^\circ C$ $T_A = 100^\circ C$ $T_A = 100^\circ C$
Thermal resistance	$R_{JC}$	2.5°C/W	-----

## 10 Amp Schottky Rectifier 20V-100V

(TO-252) DPAK



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.087	0.094	2.20	2.40	
B	0.000	0.005	0.00	0.13	
C	0.026	0.034	0.66	0.86	
D	0.018	0.023	0.46	0.58	
E	0.256	0.264	6.50	6.70	
F	0.201	0.215	5.10	5.46	
G	0.190		4.83		
H	0.236	0.244	6.00	6.20	
I	0.086	0.094	2.18	2.39	
J	0.386	0.409	9.80	10.40	
K	0.114		2.90		
L	0.055	0.067	1.40	1.70	
M	0.063		1.60		
O	0.043	0.051	1.10	1.30	
Q	0.000	0.012	0.00	0.30	
V	0.211		5.35		

# MBRD1020CT-MBRD10100CT

FIG.1-FORWARD CURRENT DERATING CURVE

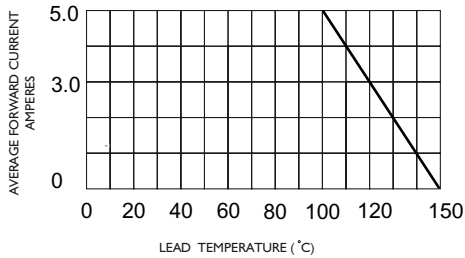


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

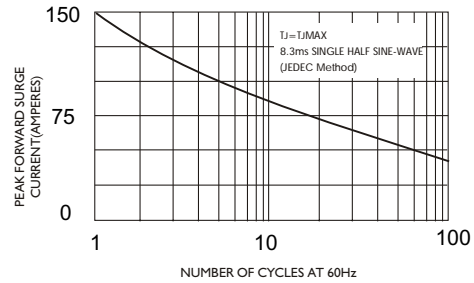


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

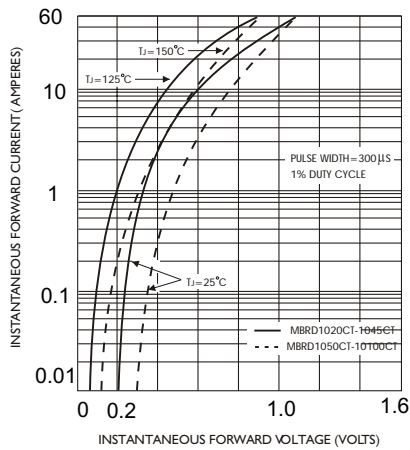


FIG.4-TYPICAL REVERSE CHARACTERISTICS

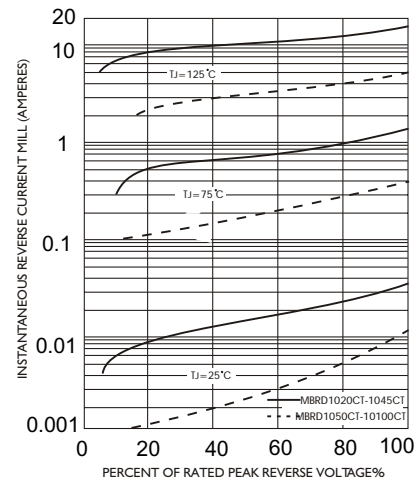


FIG.5-TYPICAL JUNCTION CAPACITANCE

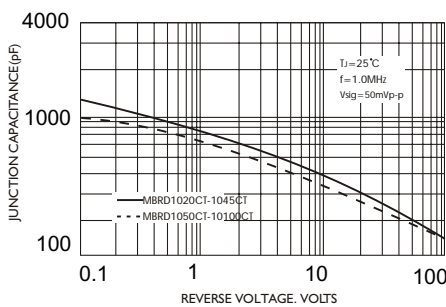
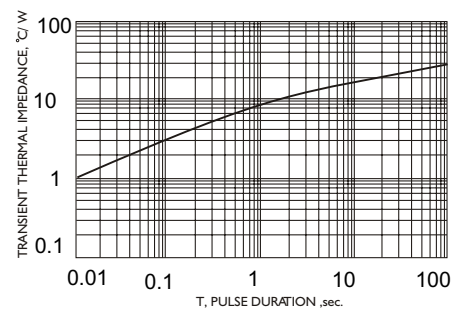


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



## Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

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.