

**Features**

- Guard Ring For Transient Protection
- Low Forward Voltage Drop
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 2.0°C/W Junction to Case
- Maximum Thermal Resistance: 50°C/W Junction to Ambient

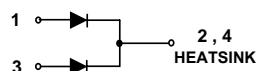
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRB2020CT	MBRB2020CT	20V	14V	20V
MBRB2030CT	MBRB2030CT	30V	21V	30V
MBRB2035CT	MBRB2035CT	35V	24.5V	35V
MBRB2040CT	MBRB2040CT	40V	28V	40V
MBRB2045CT	MBRB2045CT	45V	31.5V	45V
MBRB2060CT	MBRB2060CT	60V	42V	60V
MBRB2080CT	MBRB2080CT	80V	56V	80V
MBRB20100CT	MBRB20100CT	100V	70V	100V

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

Average Forward Current	$I_{F(AV)}$	20A	$T_A=125^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	150A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	$V_F$	0.70V 0.80V 0.85V	$I_{FM}=10\text{A}$ $T_J=25^\circ\text{C}$
MBRB2020CT-2045CT MBRB2060CT MBRB2080CT-20100CT			
MBRB2020CT-2045CT MBRB2060CT MBRB2080CT-20100CT	$V_F$	0.84V 0.95V 0.95V	$I_{FM}=20\text{A}$ $T_J=25^\circ\text{C}$
MBRB2020CT-2045CT MBRB2060CT MBRB2080CT-20100CT	$V_F$	0.80V 0.85V 0.85V	$I_{FM}=20\text{A}$ $T_J=125^\circ\text{C}$
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.1mA	$T_J=25^\circ\text{C}$

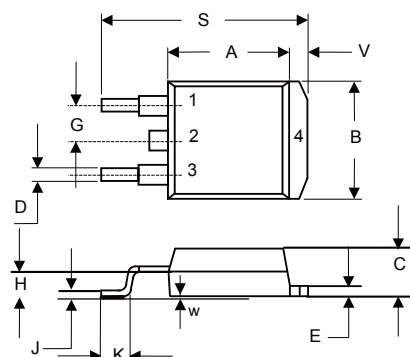
Note:1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7a.

**Internal Structure**



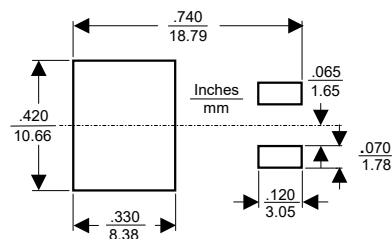
**20 Amp Schottky Barrier Rectifier  
20 to 100 Volts**

**D<sup>2</sup>-PAK**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.320	0.359	8.13	9.14	
B	0.374	0.453	9.50	11.50	
C	0.160	0.200	4.06	5.10	
D	0.020	0.038	0.51	0.96	
E	0.045	0.055	1.14	1.40	
G	0.083	0.110	2.10	2.80	
H	0.096	0.134	2.43	3.40	
J	0.011	0.025	0.28	0.64	
K	0.090	0.131	2.29	3.32	
S	0.575	0.652	14.22	16.55	
V	0.042	0.058	1.07	1.47	
W	0.000	0.008	0.00	0.20	

**Suggested Solder Pad Layout**



**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

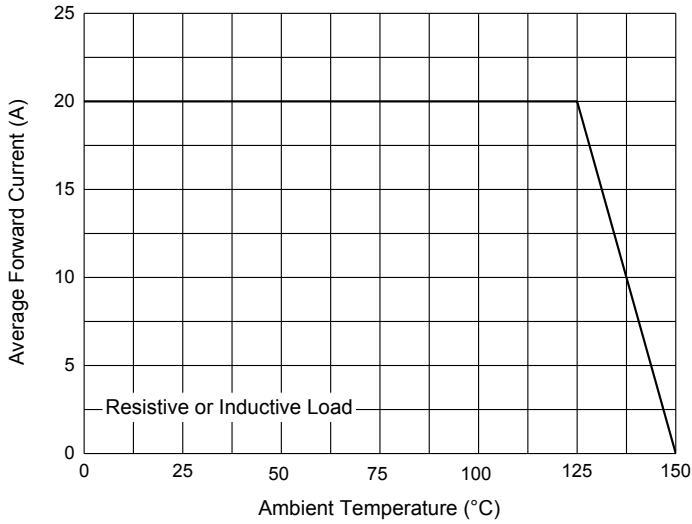


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

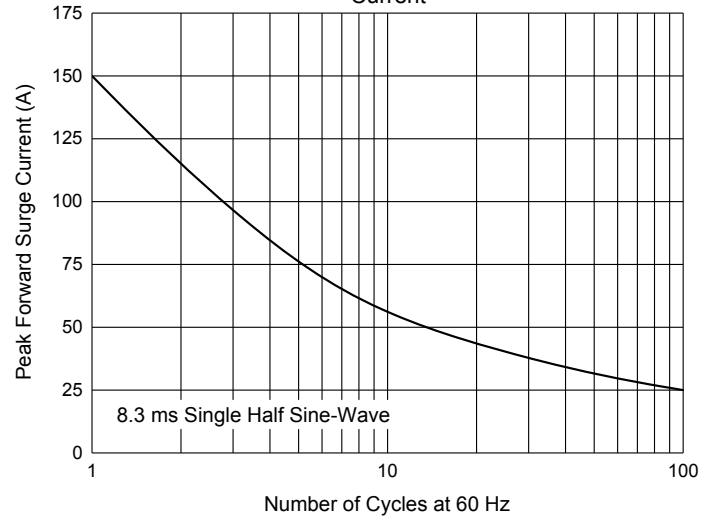


Fig. 3 - Typical Instantaneous Forward Characteristics

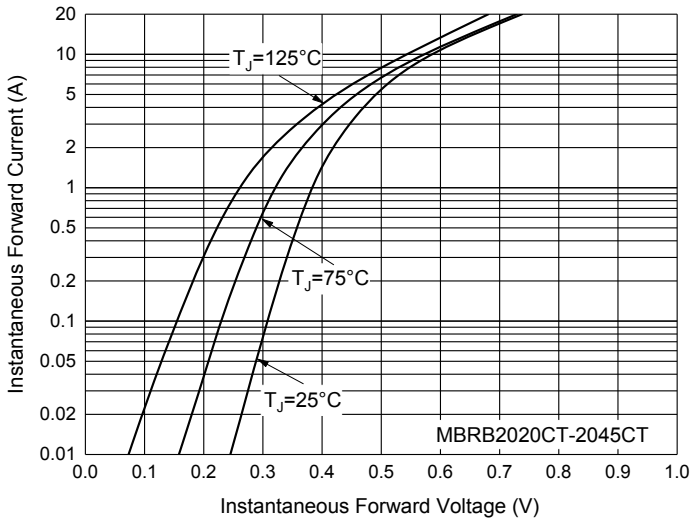


Fig. 4 - Typical Instantaneous Forward Characteristics

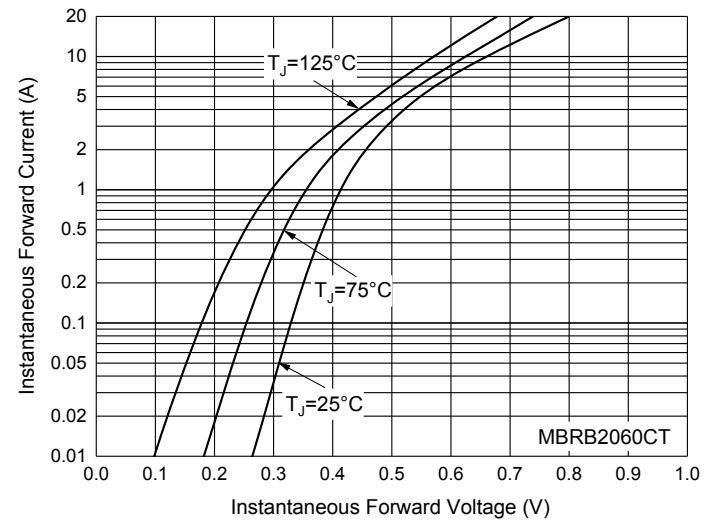


Fig. 5 - Typical Instantaneous Forward Characteristics

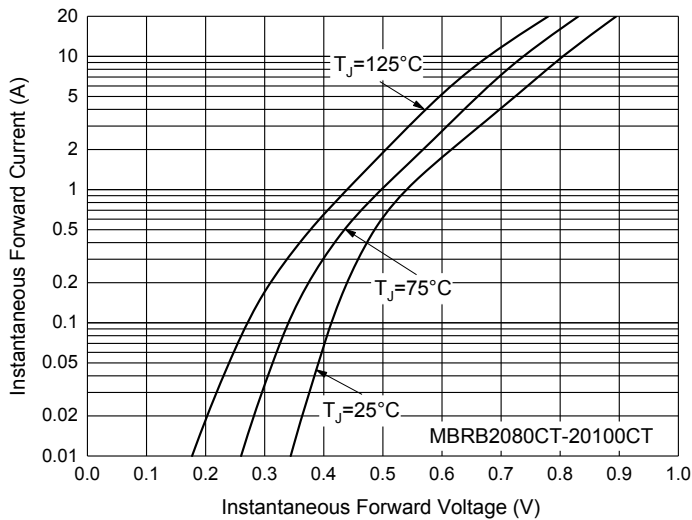
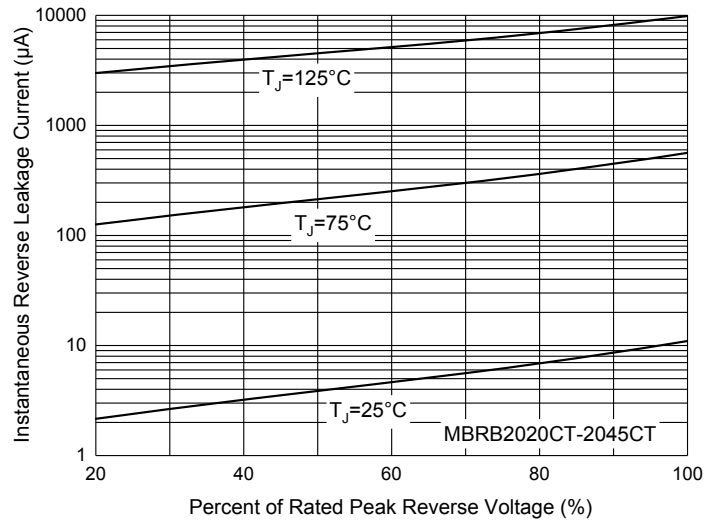


Fig. 6 - Typical Reverse Leakage Characteristics



**Curve Characteristics**

Fig. 7 - Typical Reverse Leakage Characteristics

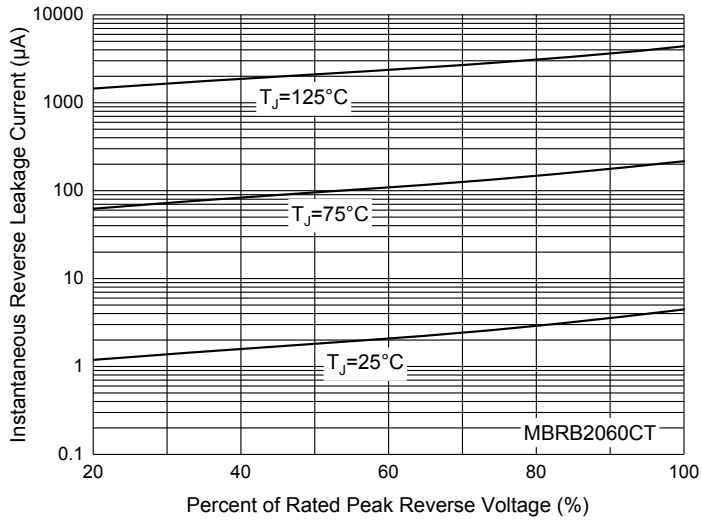
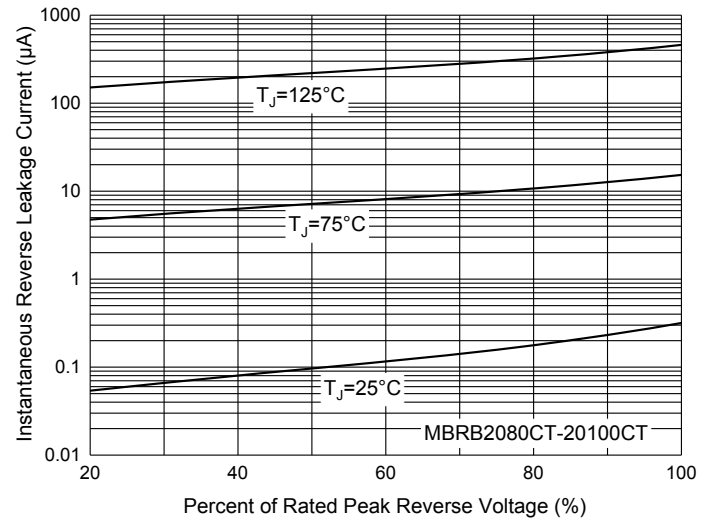


Fig. 8 - Typical Reverse Leakage Characteristics



## 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

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