



PINGWEI ENTERPRISE

## MBR2020CT THRU MBR20200CT

### 20.0AMPS. SCHOTTKY BARRIER RECTIFIERS

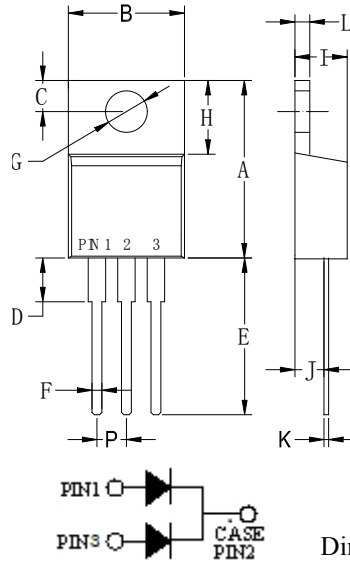
#### FEATURE

- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge capability
- . High temperature soldering guaranteed  
260°C /10seconds, 0.25"(6.35mm)from case.

#### MECHANICAL DATA

- . Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
- . Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy
- . Polarity: color band denotes cathode
- . Mounting position: any

#### TO-220AB



Dim	Min	Max
A	.573 (14.55)	.603 (15.32)
B	---	.412 (10.5)
C	.103 (2.62)	.113 (2.87)
D	.14 (3.56)	.16 (4.06)
E	.51 (13.0)	.56 (14.3)
F	.027 (0.68)	.037 (0.94)
G	.148 (3.74)	.154 (3.91)
H	.23 (5.84)	.27 (6.86)
I	.175 (4.44)	.185 (4.86)
J	.10 (2.54)	.11 (2.79)
K	.014 (0.35)	.025 (0.64)
L	.045 (1.14)	.055 (1.40)
P	.095 (2.41)	.105 (2.67)

Dimensions in inches and (millimeters)

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

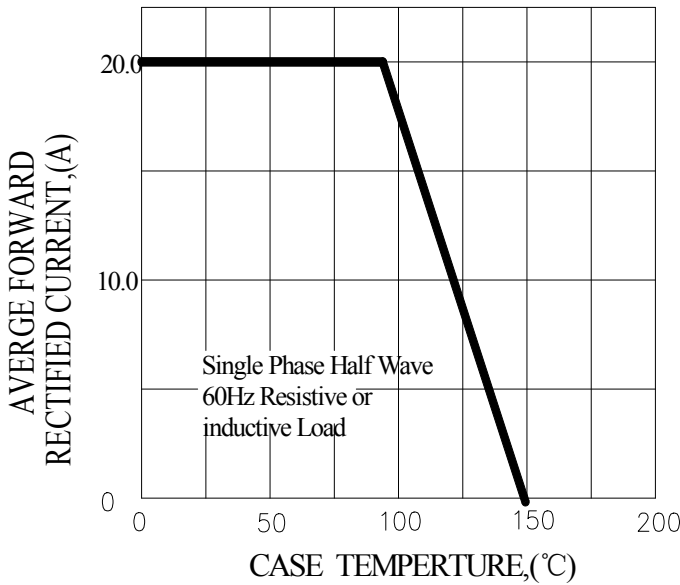
Type Number	SYM BOL	MBR 2020 CT	MBR 2040 CT	MBR 2050 CT	MBR 2060 CT	MBR 2080 CT	MBR 20100 CT	MBR 20150 CT	MBR 20200 CT	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	40	50	60	80	100	150	200	V
Maximum RMS Voltage	$V_{RMS}$	14	28	35	42	56	70	105	140	V
Maximum DC blocking Voltage	$V_{DC}$	20	40	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current at $T_C = 90^\circ C$	$I_{F(AV)}$	20.0								A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	175.0								A
Maximum Forward Voltage at 10.0A DC	$V_F$	0.55	0.60	0.70	0.85		0.90	0.95		V
Maximum DC Reverse Current @ $T_A = 25^\circ C$ at rated DC blocking voltage @ $T_A = 100^\circ C$	$I_R$	0.15			0.1		20.0			mA
Typical Junction Capacitance (Note 1)	$C_J$	700			300					pF
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	2.0								$^\circ C/W$
Storage Temperature	$T_{STG}$	-55 to +150								$^\circ C$
Operation Junction Temperature	$T_J$	-55 to +150								$^\circ C$

#### Note:

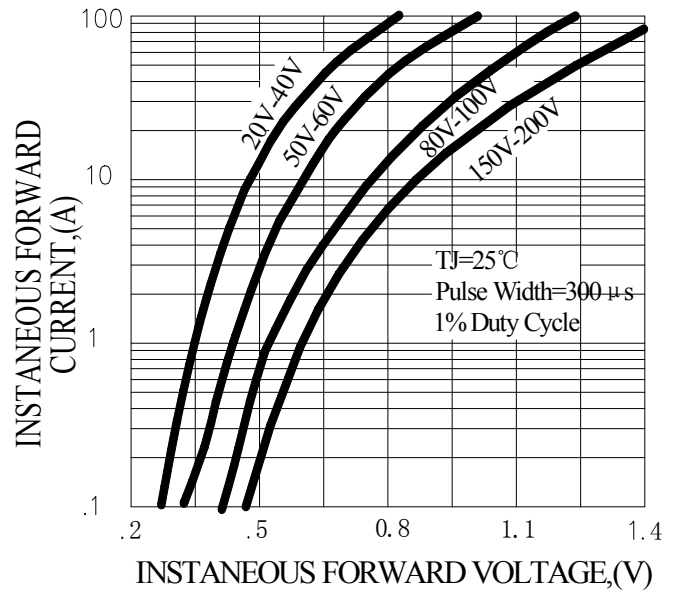
1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Case Mounted on Heatsink

**RATING AND CHARACTERISTIC CURVES (MBR2020CT THRU MBR20200CT)**

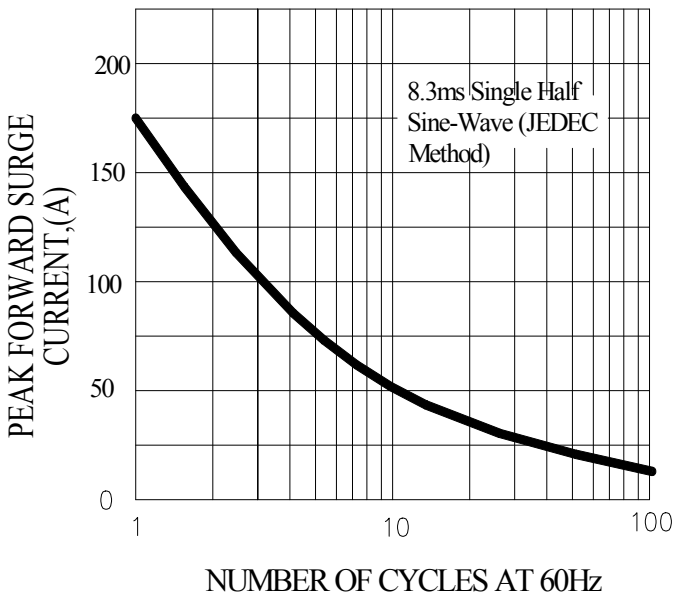
**FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE**



**FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.3-MAXIMUN NON-REPETTIVE FORWARD SURGE CURRENT**



**FIG.4-TYPICAL REVERSE CHARACTERISTICS**

