



PINGWEI ENTERPRISE

# MBR1020FCT THRU MBR10200FCT

## 10.0AMPS. SCHOTTKY BARRIER RECTIFIERS

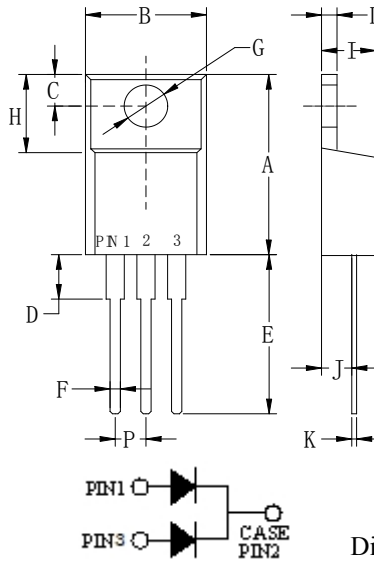
### FEATURE

- . 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

### ITO-220AB



Dim	Min	Max
A	.571 (14.5)	.610 (15.5)
B	---	.406 (10.3)
C	.110 (2.80)	.126 (3.2)
D	---	.162 (4.1)
E	.512 (13.0)	.551 (14.0)
F	.020 (0.5)	.031 (0.78)
G	.114 (2.9)	.138 (3.5)
H	.268 (6.8)	.291 (7.4)
I	.162 (4.1)	.185 (4.7)
J	.110 (2.8)	.126 (3.2)
K	.020 (0.5)	.028 (0.7)
L	.097 (2.46)	.113 (2.86)
P	.89 (2.25)	.113 (2.85)

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.

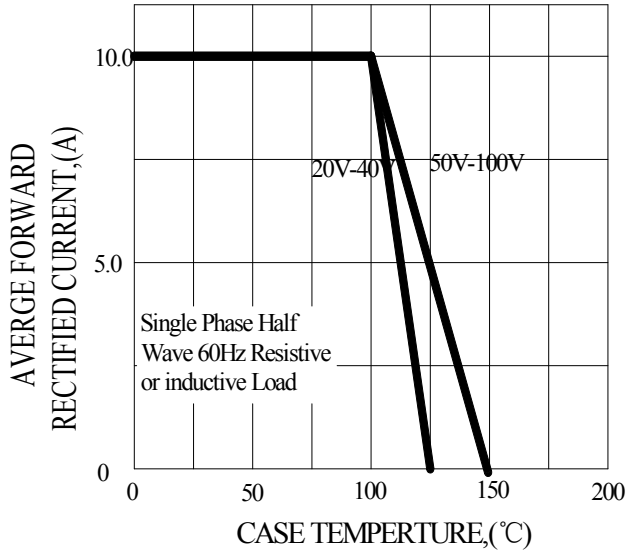
For capacitive load, derate current by 20%

Type Number	SYM BOL	MBR 1020 FCT	MBR 1040 FCT	MBR 1050 FCT	MBR 1060 FCT	MBR 1080 FCT	MBR 10100 FCT	MBR 10150 FCT	MBR 10200 FCT	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 $T_C = 100^\circ\text{C}$	$I_{F(AV)}$	10.0								A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	120.0								A
Maximum Forward Voltage at 5.0A DC	$V_F$	0.45	0.55	0.70			0.85	0.95		V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 100^\circ\text{C}$	$I_R$	0.5			0.1			10.0		mA
Typical Junction Capacitance (Note 1)	$C_J$	500			112					pF
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	3.0								$^\circ\text{C/W}$
Storage Temperature	$T_{STG}$	-55 to +150								$^\circ\text{C}$
Operation Junction Temperature	$T_J$	-55 to +125			-55 to +150					$^\circ\text{C}$

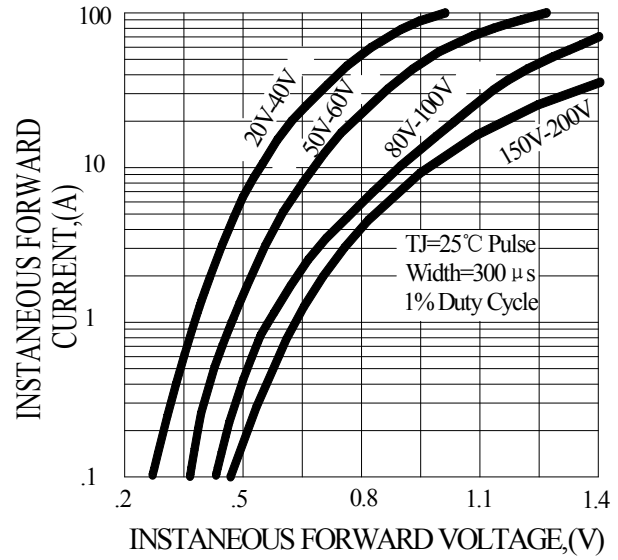
### Note:

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

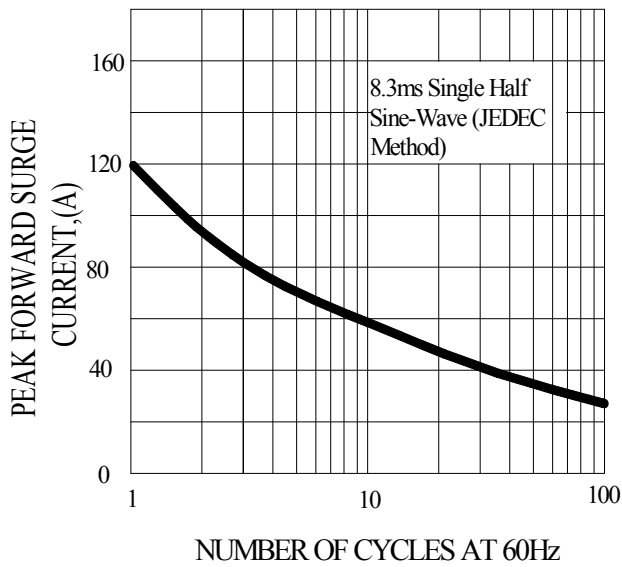
**FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE**



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



**FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.4-TYPICAL REVERSE CHARACTERISTICS**

