

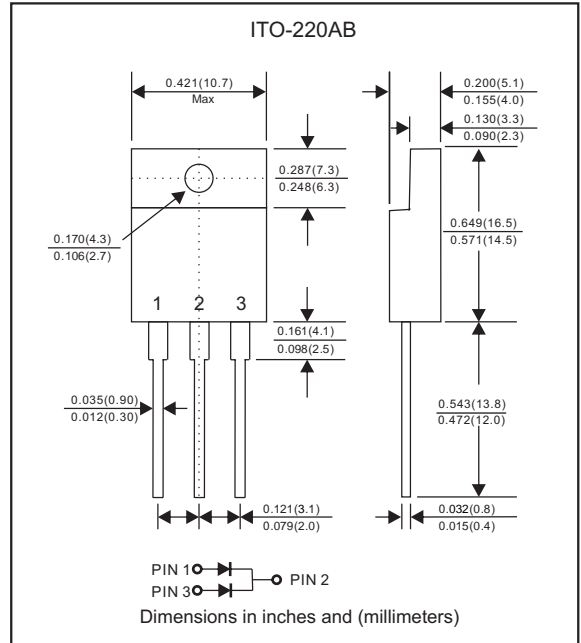
Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- Construction utilizes void-free molded plastic technique
- High temperature soldering guaranteed
260°C/10 seconds at terminals
- Suffix "-H" indicates Halogen-free parts, ex. MBR20U100FCT-H.

Mechanical data

- Case : Molded plastic body
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Polarity symbol marking on body
- Mounting Position : Any

Package outline



Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	$T_c = 110^\circ\text{C}$ See Fig. 1	I_o			20	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			150	A
Reverse current	$V_R = V_{RRM}$ $T_A = 25^\circ\text{C}$	I_R			0.05	mA
	$V_R = V_{RRM}$ $T_A = 125^\circ\text{C}$				10	
Thermal resistance	Junction to case (1)	$R_{\theta JC}$		4		$^\circ\text{C/W}$
Storage temperature		T_{STG}	-55		+150	$^\circ\text{C}$

NOTE : (1) Device mounted on additional heatsink, (50mm x 50mm x 23mm Al heatsink).

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_{J1} ($^\circ\text{C}$)
MBR20U100FCT	100	70	100	0.70	-55 to +150

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage
 $I_F = 10.0\text{A}$

Rating and characteristic curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

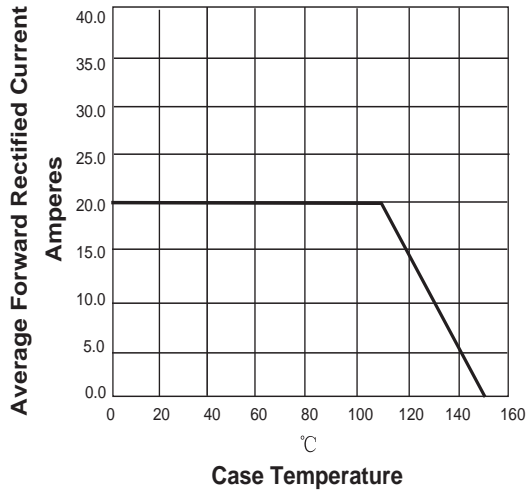


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

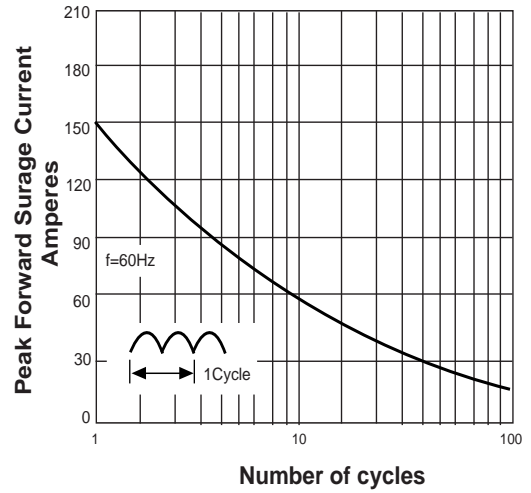


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

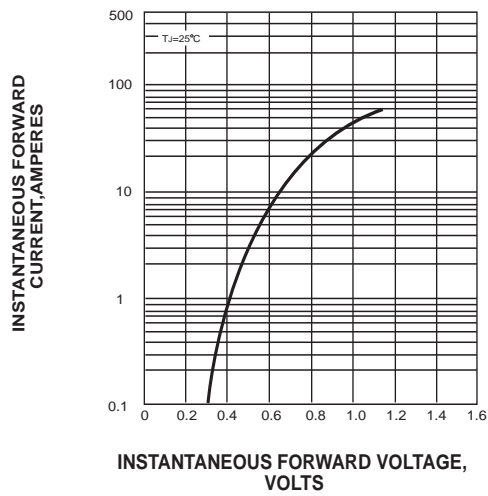
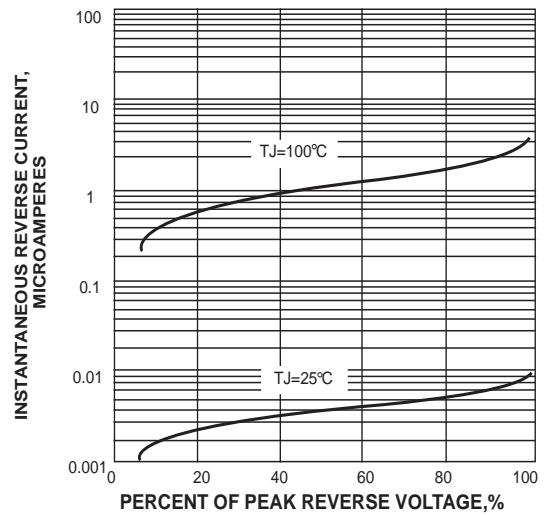
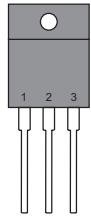
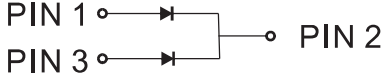


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Pinning information

Pin	Simplified outline	Symbol
Pin1 anode Pin2 cathode Pin3 anode		

Marking

Type number	Marking code
MBR20U100FCT	MBR20U100FCT