

MBR3040F - MBR30200F

SCHOTTKY BARRIER RECTIFIER DIODES

PRV : 40 - 200 Volts

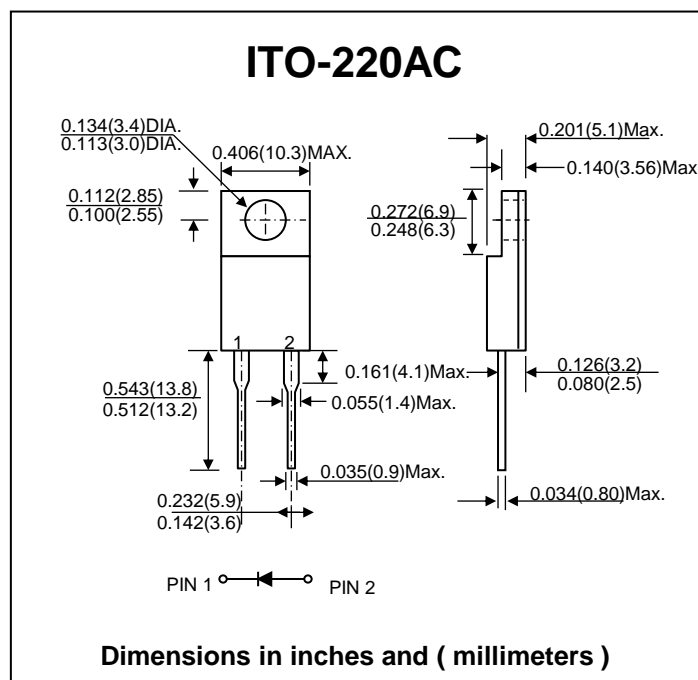
Io : 30 Ampere

FEATURES :

- * High surge forward current capability
- * High efficiency
- * High speed switching
- * Low Power loss
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : Molded plastic
- * Polarity: As marked
- * Mounting Position: Any
- * Weight : 1.5 grams (Approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	MBR 3040	MBR 3060	MBR 30100	MBR 30150	MBR 30200	UNIT
Maximum Peak Repetitive Reverse Voltage	V_{RRM}	40	60	100	150	200	V
Maximum Average Forward Current	$I_{F(AV)}$	30					A
Maximum Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at $T_a = 25^\circ\text{C}$	I_{FSM}	200					A
Maximum Instantaneous Forward Voltage at $I_F = 30\text{ A}$	V_F	0.65	0.75	0.85	0.9	0.95	V
Maximum Reverse Current at $T_J = 25^\circ\text{C}$	I_R	0.1					mA
Rated DC Blocking Voltage $T_J = 100^\circ\text{C}$	$I_{R(H)}$	20					mA
Maximum Thermal Resistance, Junction to Case	$R_{\theta JC}$	2.0					$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55 to + 150					$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to + 150					$^\circ\text{C}$

Note :

(1) Pulse test : 300 μs pluse width, 1% duty cycle

RATING AND CHARACTERISTIC CURVES (MBR3040F - MBR30200F)

FIG.1 - FORWARD CURRENT DERATING CURVE

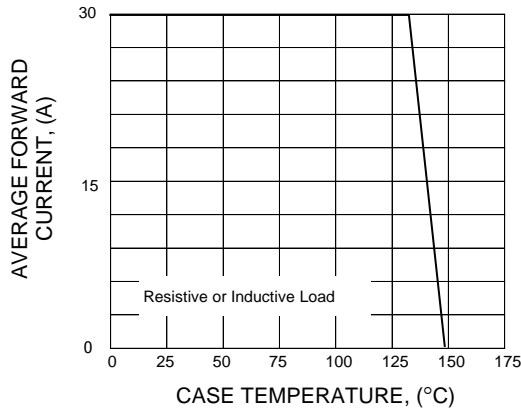


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

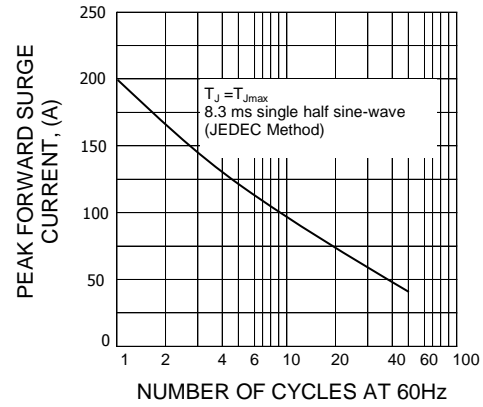


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

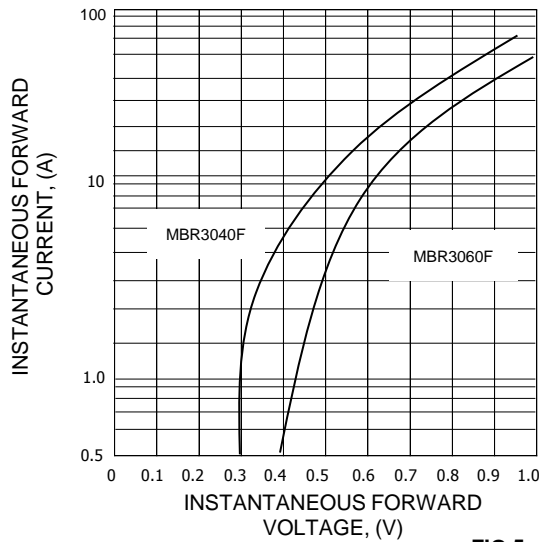


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

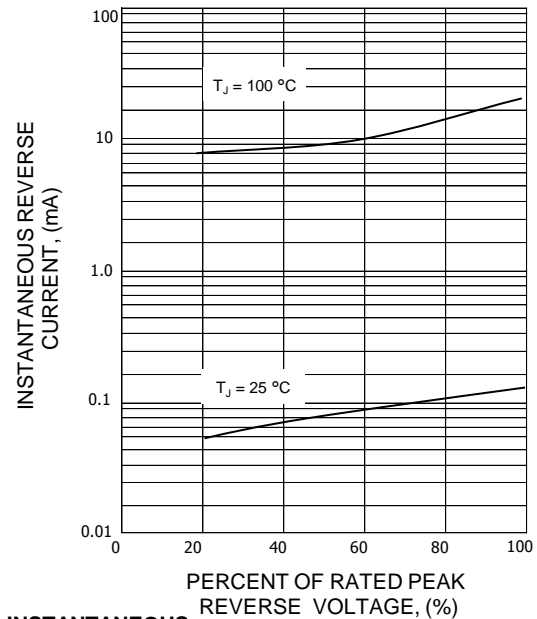


FIG.5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

