Compact Technology

MBR3020FCT thru MBR30100FCT

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **20** to **100** Volts
FORWARD CURRENT - **30.0** Amperes

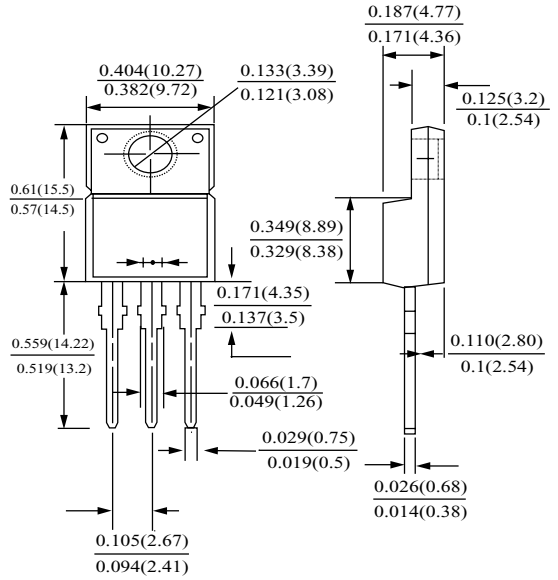
FEATURES

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage,high frequency inverters,free wheeling,and polarity protection applications

MECHANICAL DATA

- Case : ITO-220AB molded plastic
- Polarity : Color band denotes cathode
- Weight : 1.689 grams
- Mounting position : Any

ITO-220AB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

PARAMETER	SYMBOL	MBR 3020FCT	MBR 3040FCT	MBR 3050FCT	MBR 3060FCT	MBR 3080FCT	MBR 30100FCT	UNIT
Maximum repetitive peak reverse voltage	VRRM	20	40	50	60	80	100	V
Maximum RMS voltage	VRMS	14	28	35	42	56	70	V
Maximum DC blocking voltage	VDC	20	40	50	60	80	100	V
Maximum average forward rectified current (per leg 15A)	I_F	30.0						A
Peak forward surge current, 8.3ms single half sine-wave superim posed on rated load	I_{FSM}	200						A
Maximum instantaneous I_F=5A@25℃ @100℃	V_F	0.70 0.60		0.75 0.65		0.85 0.75		V
Maximum DC Reverse Current @TA=25℃ at Rated DC Blocking Voltage @TA=100℃	I_R	0.2 15.0						mA
Typical Junction Capacitance	C_J	700		550		420		pF
Typical Thermal Resistance	$R_{\theta JC}$	3						℃/W
Operating Temperature Range	T_J	-55 to +150						℃
Storage Temperature Range	T_{STG}	-55 to +175						℃

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

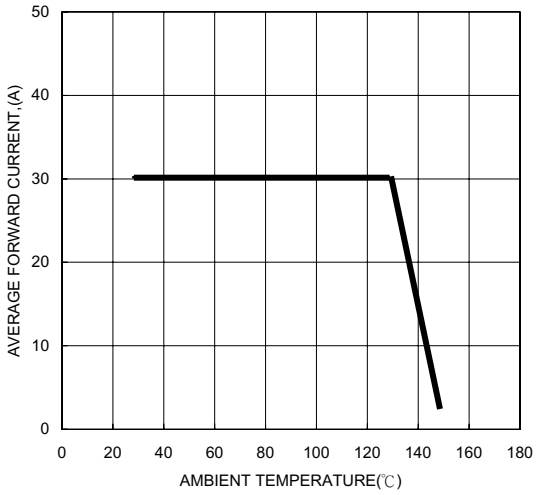


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

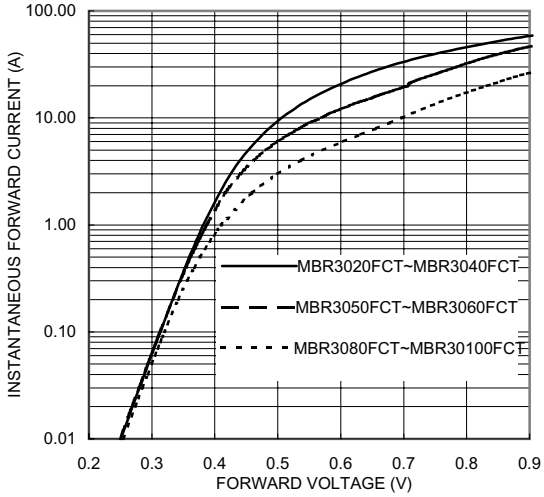


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

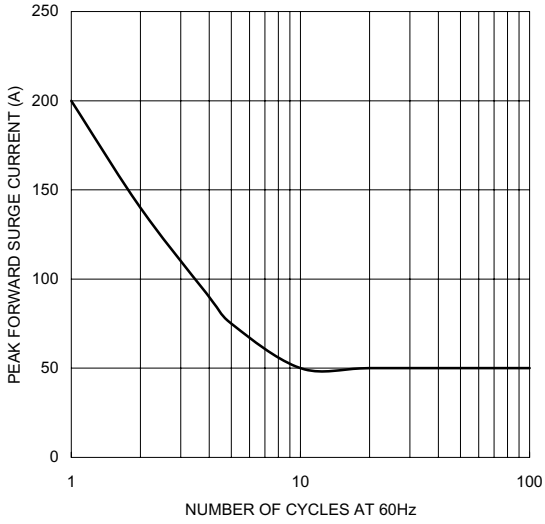


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

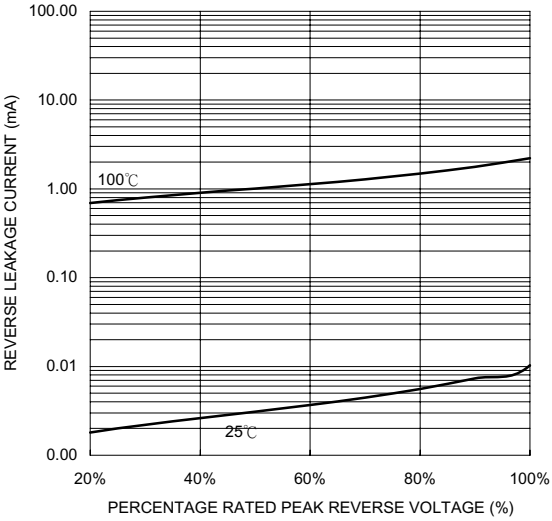


FIG. 5-TYPICAL JUNCTION CAPACITANCE

