Compact Technology

MBR1020CT thru MBR10200CT

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **20** to **200** Volts
FORWARD CURRENT - **10.0** Amperes

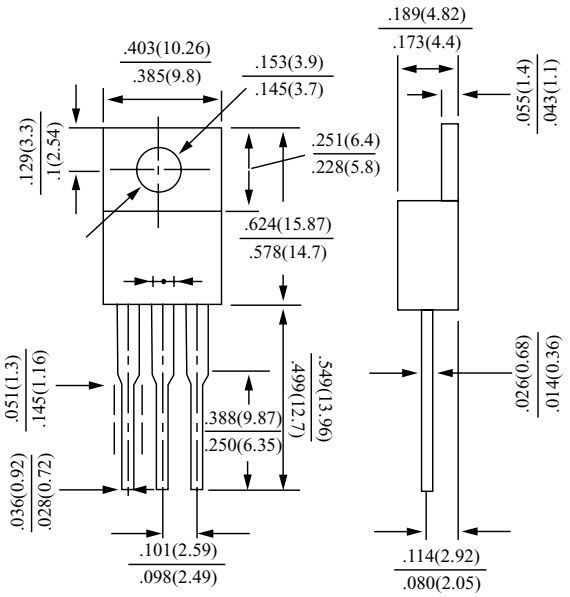
FEATURES

- 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 : TO-220AB molded plastic
- Polarity : Color band denotes cathode
- Weight : 1.948 grams
- Mounting position : Any

TO-220AB



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 1020CT	MBR 1040CT	MBR 1050CT	MBR 1060CT	MBR 1080CT	MBR 10100CT	MBR 10150CT	MBR 10200CT	UNIT
Maximum repetitive peak reverse voltage	VRRM	20	40	50	60	80	100	150	200	V
Maximum RMS voltage	VRMS	14	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	VDC	20	40	50	60	80	100	150	200	V
Maximum average forward rectified current (Per leg)	I_F	10.0 5.0								A
Peak forward surge current, 8.3ms single half sine-wave superim posed on rated load	I_{FSM}	120.0								A
Maximum instantaneous I_F=5A@25℃ Forward Voltage I_F=5A@100℃	V_F	0.70 0.60		0.75 0.65		0.85 0.75		0.92 0.80		V
Maximum DC Reverse Current @TA=25℃ at Rated DC Blocking Voltage @TA=100℃	I_R	0.1 10.0								mA
Typical Junction Capacitance	C_J	270		200		150		100		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

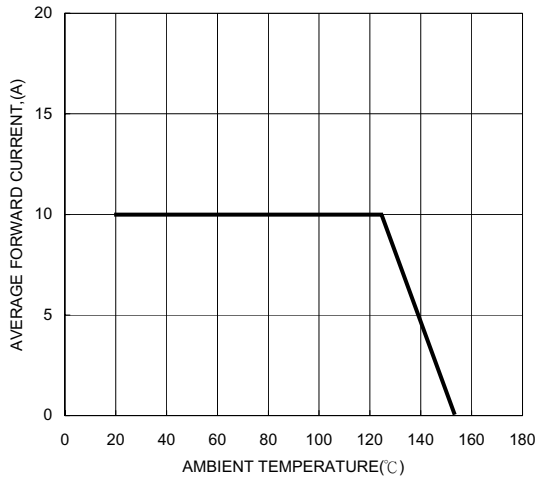


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

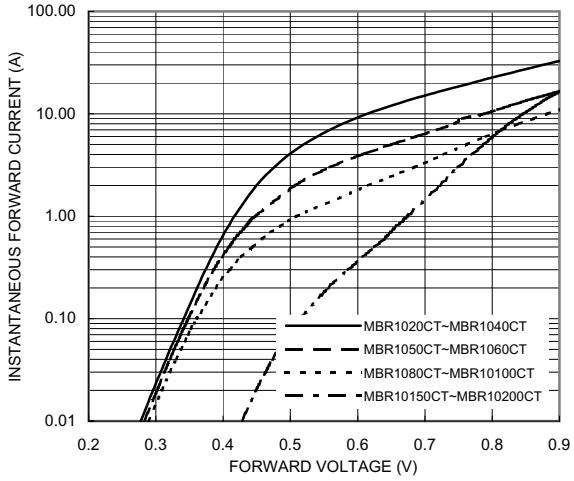


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

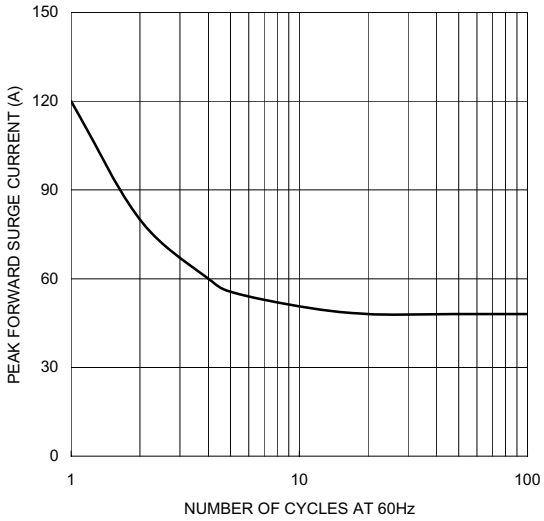


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

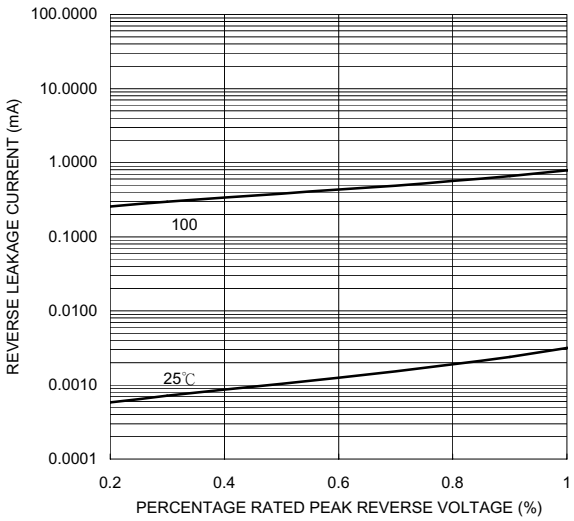


FIG. 5-TYPICAL JUNCTION CAPACITANCE

