Compact Technology

MBR2020CT thru MBR20200CT

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **20** to **200** Volts
FORWARD CURRENT - **20.0** Amperes

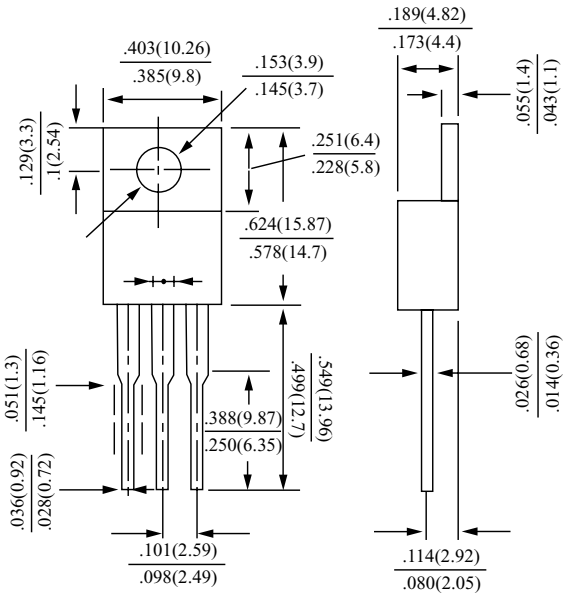
FEATURES

- 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 2020CT	MBR 2040CT	MBR 2050CT	MBR 2060CT	MBR 2080CT	MBR 20100CT	MBR 20150CT	MBR 20200CT	UNIT
Maximum repetitive 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 (per leg 10A)	I_F	20.0								A
Peak forward surge current, 8.3ms single half sine-wave superim posed on rated load	I_{FSM}	150								A
Maximum instantaneous I_F=10A@25℃ @100℃	V_F	0.70 0.60		0.75 0.65		0.85 0.75		0.92 0.82		V
Maximum DC Reverse Current @TA=25℃ at Rated DC Blocking Voltage @TA=100℃	I_R	0.2 20.0								mA
Typical Junction Capacitance	C_J	400		300		270			210	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

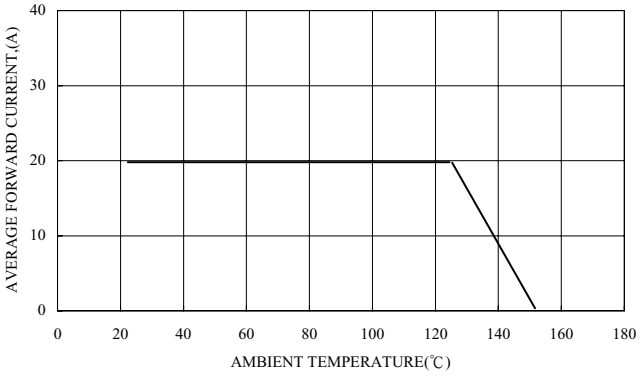


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

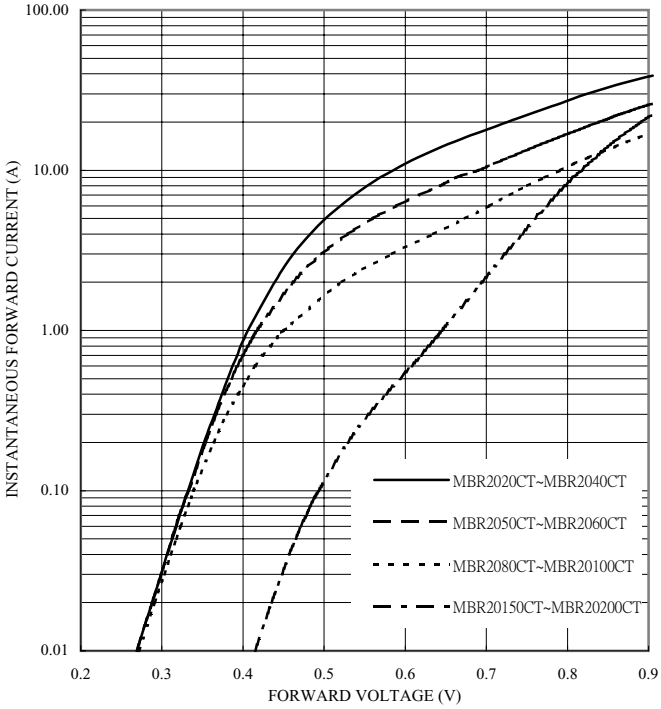


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

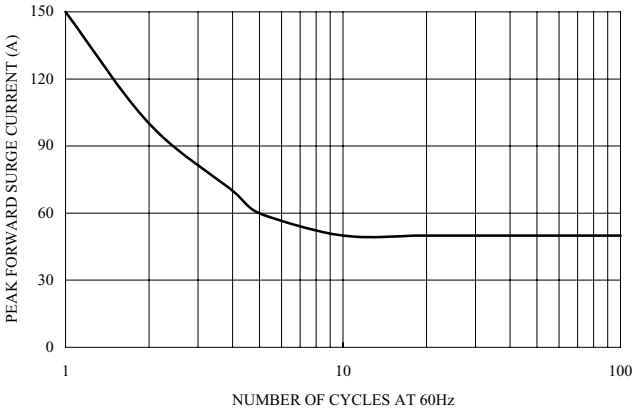


FIG. 5-TYPICAL REVERSE CHARACTERISTICS

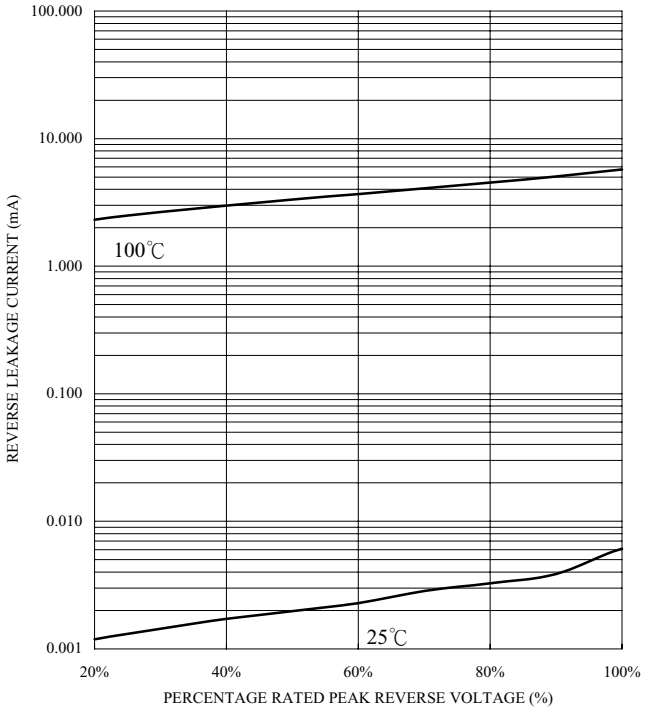


FIG. 4-TYPICAL JUNCTION CAPACITANCE

