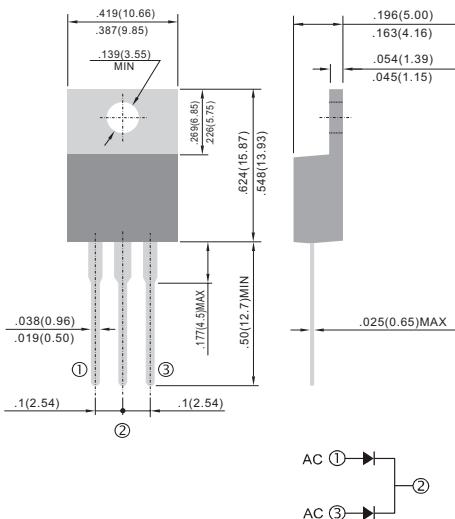


MBR2040CT ~ MBR20200CT

20 AMPERES SCHOTTKY BARRIER RECTIFIERS
VOLTAGE 40 to 200 Volts CURRENT 20 Amperes

**TO-220AB**

Unit : inch(mm)

**FEATURES**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O.
- Flame Retardant Epoxy Molding Compound.
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency.
- High current capability
- Guardring for overvoltage protection
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: TO-220AB molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

PARAMETER	SYMBOL	MBR 2040CT	MBR 2045CT	MBR 2050CT	MBR 2060CT	MBR 2080CT	MBR 2090CT	MBR 20100CT	MBR 20150CT	MBR 20200CT	UNITS						
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	50	60	80	90	100	150	200	V						
Maximum RMS Voltage	V_{RMS}	28	31.5	35	42	56	63	70	105	140	V						
Maximum DC Blocking Voltage	V_{DC}	40	45	50	60	80	90	100	150	200	V						
Maximum Average Forward Current (See fig.1) per diode	$I_{F(AV)}$	20 10									A						
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	250									A						
Maximum Forward Voltage at 10A, per leg	V_F	0.55		0.7		0.85		0.95		V							
Maximum DC Reverse Current $T_J=25^\circ C$ at Rated DC Blocking Voltage $T_J=125^\circ C$	I_R	0.2 20									mA						
Typical Thermal Resistance	$R_{\theta JC}$	2									°C / W						
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-55 to +125				-55 to +150				°C							

Notes :

Both Bonding and Chip structure are available.

MBR2040CT ~ MBR20200CT

RATINGS AND CHARACTERISTIC CURVES

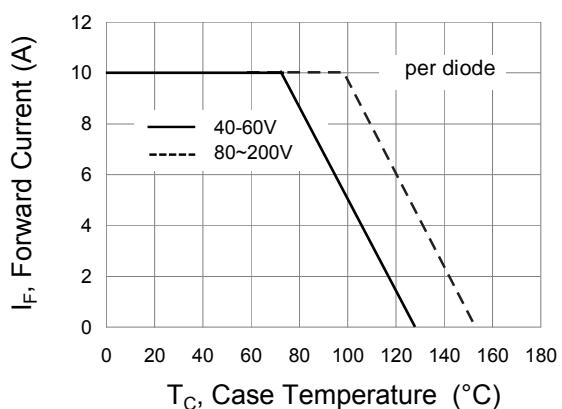


Fig.1 Forward Current Derating Curve

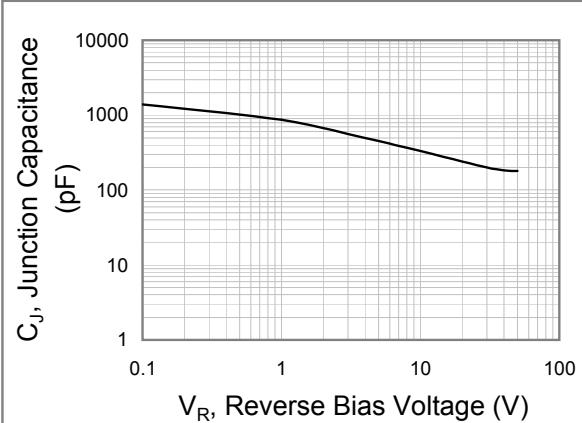


Fig.2 Typical Junction Capacitance

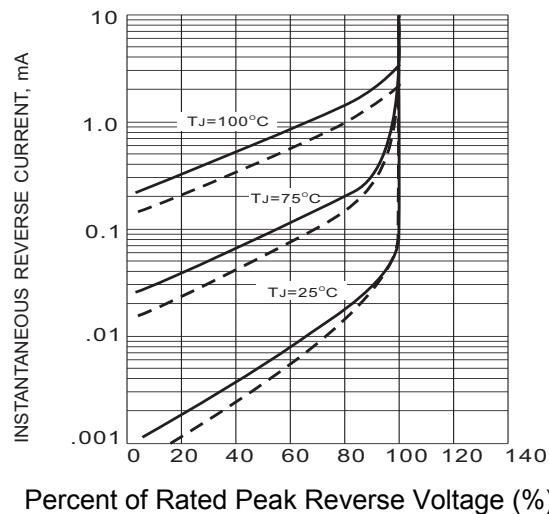


Fig.3 Typical Reverse Characteristics

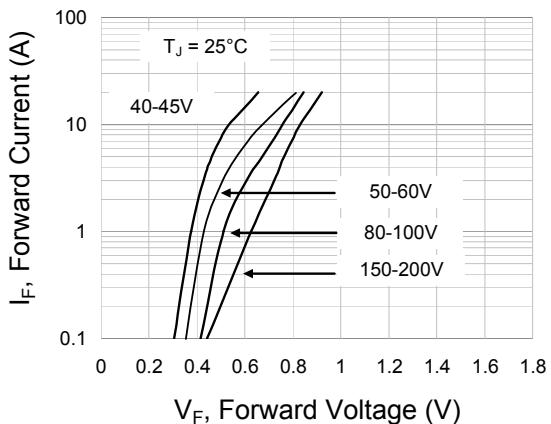


Fig.4 Typical Forward Characteristics

The curve graph is for reference only, can't be the basis for judgment