

MBR2020CT THRU MBR20100CT



20 AMPERES SCHOTTKY BARRIER RECTIFIERS

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 Finish/RoHS Compliant

MECHANICAL DATA

Case: TO-220AB molded plastic

Terminals: solder plated, solderable per MIL-STD-750, Method 2026

Polarity: As marked.

Mounting Position: Any

Weight: 1.81grams.

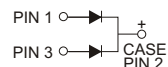
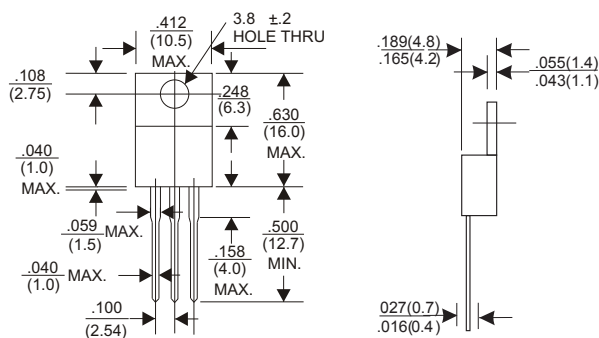
VOLTAGE RANGE

20 to 100 Volts

CURRENT

20.0 Ampere

TO-220AB



Dimensions in inches and (millimeters)

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	MBR2020CT	MBR2030CT	MBR2040CT	MBR2045CT	MBR2050CT	MBR2060CT	MBR2080CT	MBR20100CT	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	45	50	60	80	100	V
Maximum RMS Voltage	V _{RMS}	14	21	28	31.5	35	42	56	70	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	45	50	60	80	100	V
Maximum Average Forward Current (See fig.1)	I _{AV}	20								A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I _{FSM}	150								A
Maximum Forward Voltage at 10A, per leg	V _F	0.65				0.85				V
Maximum DC Reverse Current Tc=25 °C at Rated DC Blocking Voltage Tc=125°C	I _R	0.5								mA
		30				50				mA
Typical Thermal Resistance	RθJC	5								°C / W
Operating Junction Temperature Range	T _J	-50 TO + 150								°C
Storage Temperature Range	T _{STG}	-50 TO + 150								°C
Voltage rate of change (Rated V _R)	dV/dt	10000								V/μs

Notes :

Both Bonding and Chip structure are available.

RATING AND CHARACTERISTIC CURVES (MBR2020CT THRU MBR20100CT)

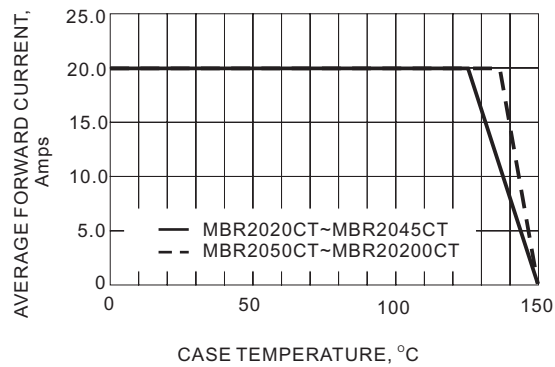


Fig.1- FORWARD CURRENT DERATING CURVE

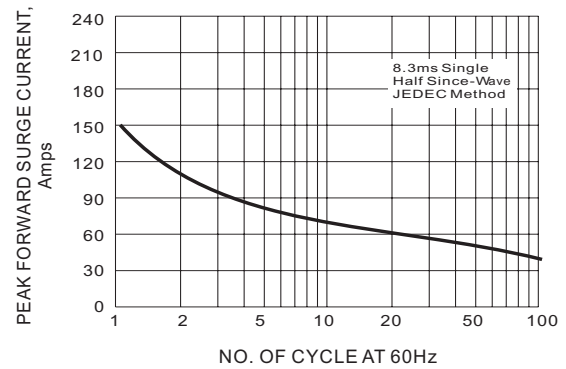


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

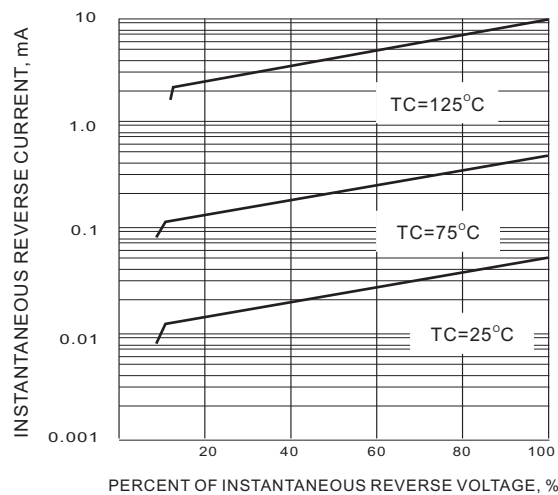


Fig.3- TYPICAL REVERSE CHARACTERISTICS

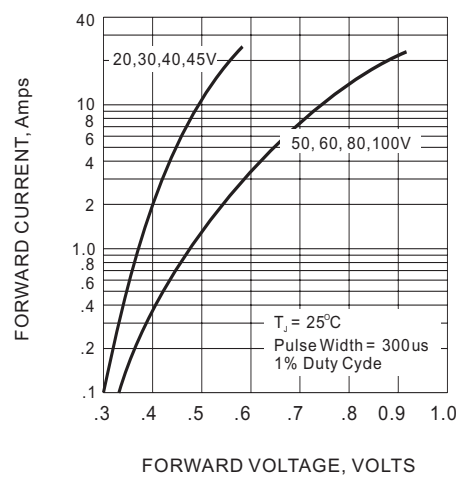


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS