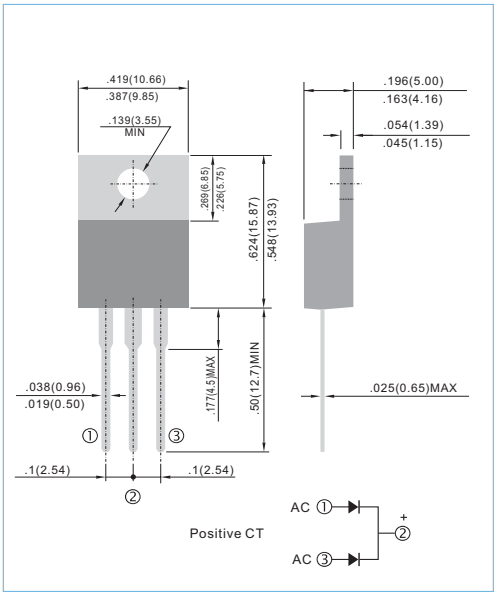
PANJIT SEMI CONDUCTOR

MBR1020CT~MBR10100CT

10 AMPERES SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 100 Volts **CURRENT** 10 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 overvlotage protection
- For use in low voltage,high frequency inverters free wheeling , and polarlity protection applications.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

MECHANICALDATA

Case: TO-220AB molded plastic

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

Polarity: As marked.

Mounting Position: Any

Weight: 0.08 ounces, 2.24grams.

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	MBR1020CT	MBR1030CT	MBR1040CT	MBR1045CT	MBR1050CT	MBR1060CT	MBR1080CT	MBR10100CT	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}	10								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 5A, per leg	V_F	0.65				0.75		0.8		V
Maximum DC Reverse Current Tc=25 °C at Rated DC Blocking Voltage Tc=125°C	I_R	0.1 20								mA
Typical Thermal Resistance	RθJC	2								°C / W
Operating Junction Temperature Range	T_J	-50 TO + 150								°C
Storage Temperature Range	T_{STG}	-50 TO + 175								°C

Notes :

Both Bonding and Chip structure are available.

MBR1020CT~MBR10100CT

RATING AND CHARACTERISTIC CURVES

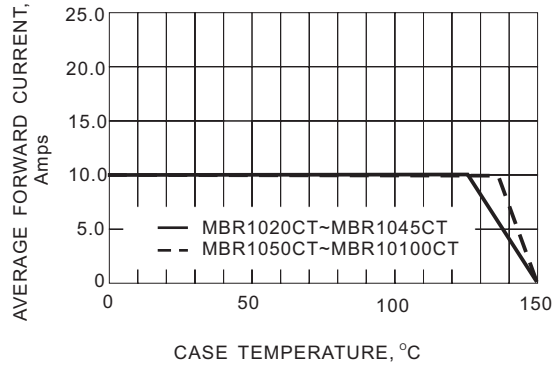


Fig.1- FORWARD CURRENT DERATING CURVE

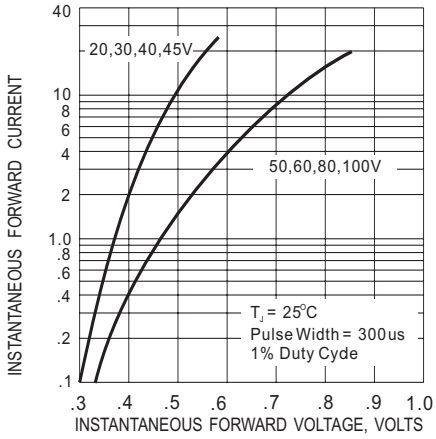


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

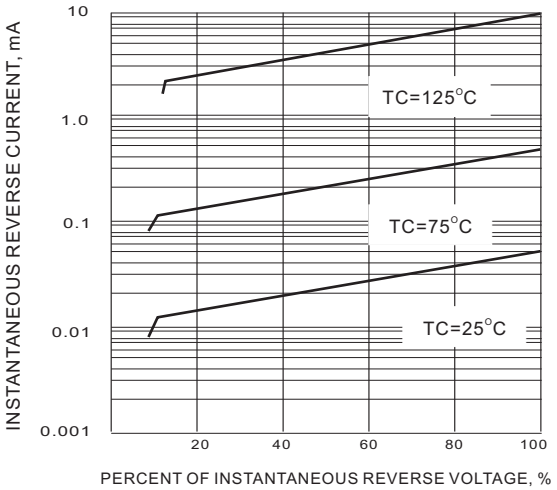


Fig.3- TYPICAL REVERSE CHARACTERISTICS

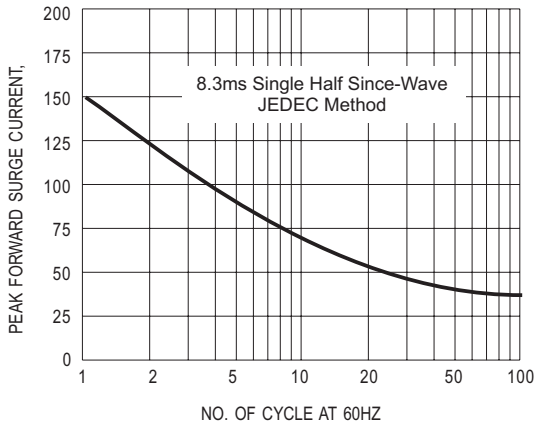


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHRACTERISTICS