PANJIT SEMI CONDUCTOR

MBR3020PT~MBR30200PT

30 AMPERES SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 200 Volts **CURRENT** 30 Amperes

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.
- Component are in compliance with EU RoHS 2002/95/EC directives

MECHANICALDATA

Case: TO-3P molded plastic

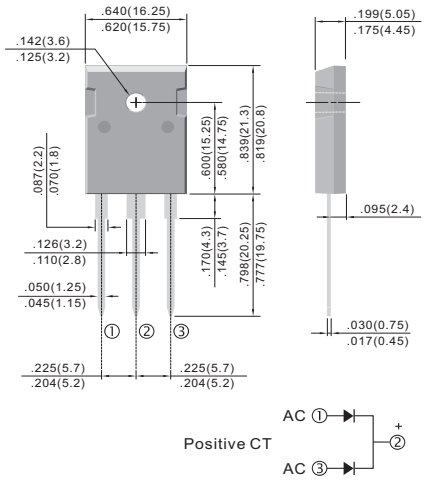
Terminals: solder plated, solderable per MIL-STD-750, Method 2026

Polarity: As marked.

Mounting Position: Any

Weight: 0.2 ounces, 5.6 grams.

TO-3P Unit: inch (mm)



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 3020PT	MBR 3030PT	MBR 3040PT	MBR 3045PT	MBR 3050PT	MBR 3060PT	MBR 3080PT	MBR 30100PT	MBR 30150PT	MBR 30200PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	45	50	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	31.5	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	45	50	60	80	100	150	200	V
Maximum Average Forward Current (See fig.1)	I_{AV}	30										A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	200										A
Maximum Forward Voltage at 15A, per leg	V_F	0.65				0.75		0.8		0.92		V
Maximum DC Reverse Current T_C=25 °C at Rated DC Blocking Voltage T_C=125°C	I_R	0.1 20										mA
Typical Thermal Resistance	RθJC	1.4										°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.

MBR3020PT~MBR30200PT

RATING AND CHARACTERISTIC CURVES

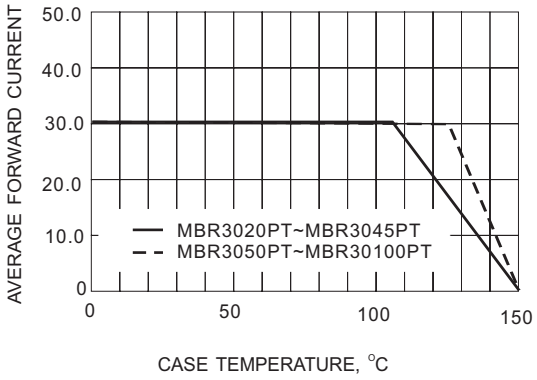


Fig.1- FORWARD CURRENT DERATING CURVE

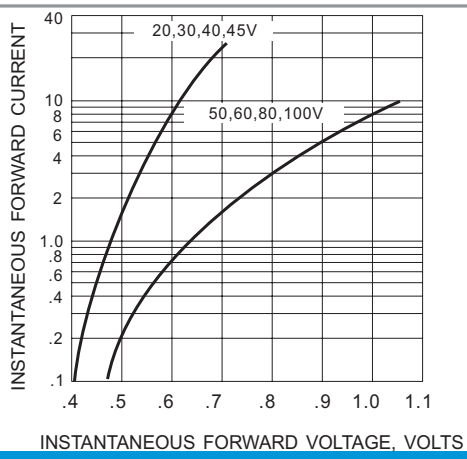


Fig.2- TYPICAL INSTANEOUS FORWARD CHARACTERISTIC

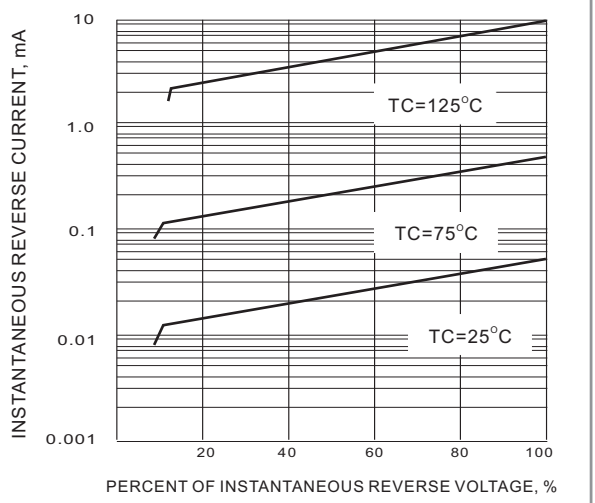


Fig.3- TYPICAL REVERSE CHARACTERISTICS

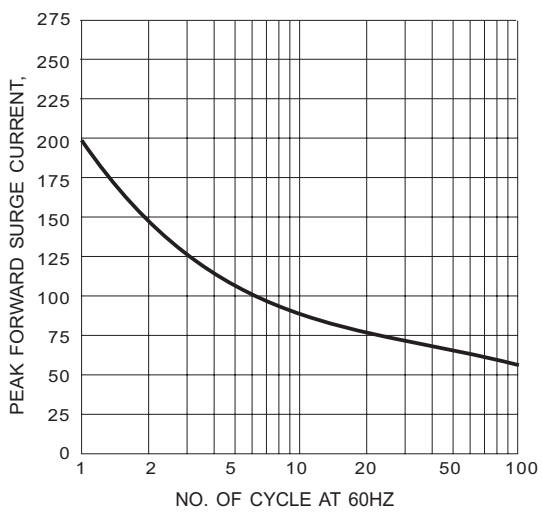


Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT