MBR4020PT~MBR40100PT

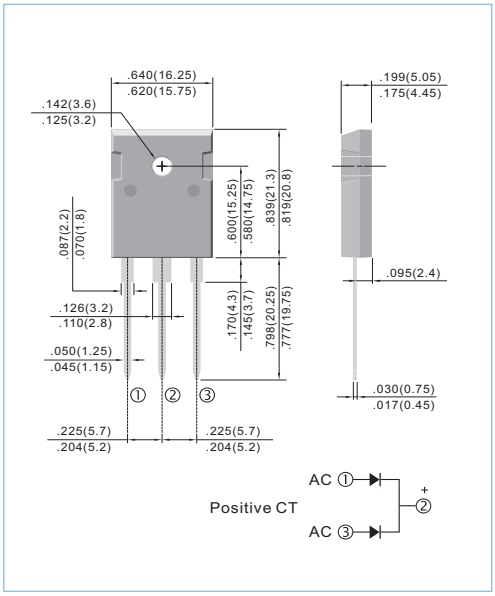
40 AMPERES SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 100 Volts **CURRENT** 40 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.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

TO-3P Unit: inch (mm)



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.

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	MBR4020PT	MBR4030PT	MBR4040PT	MBR4045PT	MBR4050PT	MBR4060PT	MBR4080PT	MBR40100PT	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}	40								A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	400								A
Maximum Forward Voltage at 20A, per leg	V_F	0.7				0.8				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	1.2								°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.

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RATING AND CHARACTERISTIC CURVES

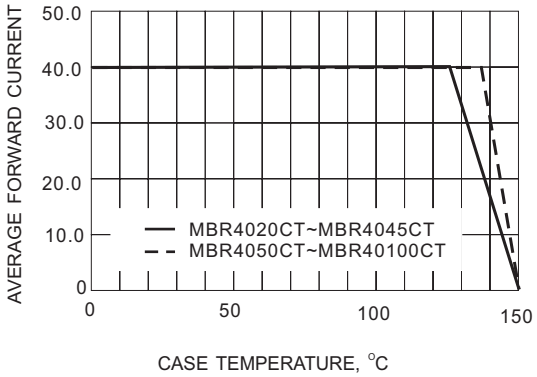

Fig.1- FORWARD CURRENT DERATING CURVE

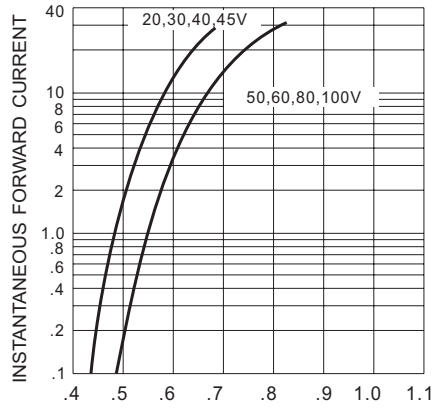

Fig.2- TYPICAL INSTANEOUS FORWARD CHARACTERISTIC

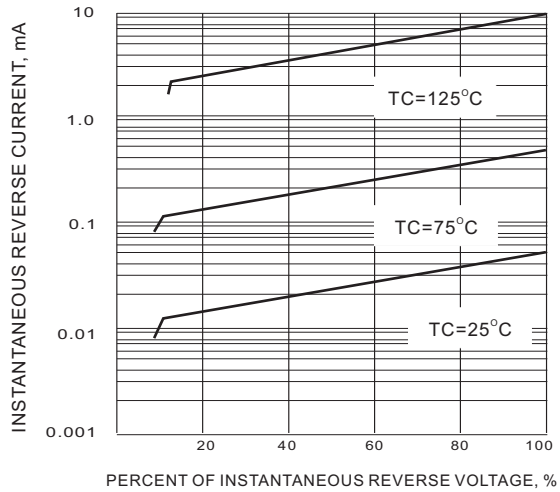

Fig.3- TYPICAL REVERSE CHARACTERISTICS

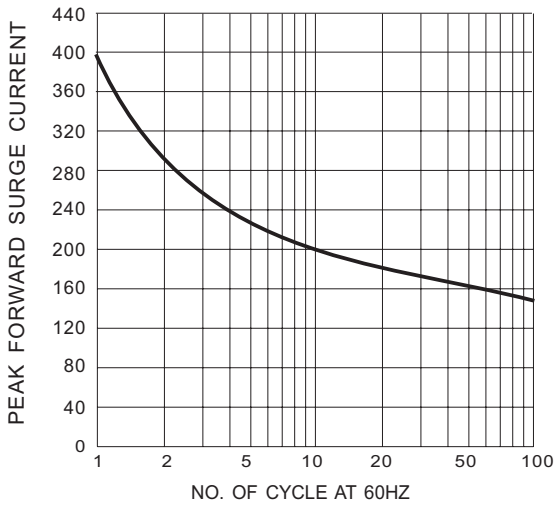

Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT