

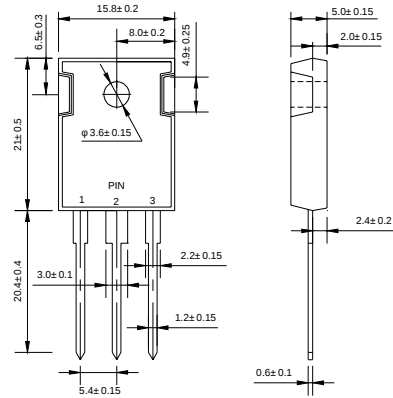
Features

- ◇ High surge capacity.
- ◇ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- ◇ Metal silicon junction, majority carrier conduction.
- ◇ High current capacity, low forward voltage drop.
- ◇ Guard ring for over voltage protection.

Mechanical Data

- ◇ Case: JEDEC TO-3P, molded plastic body
- ◇ Terminals: Solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Position: Any
- ◇ Weight: 0.223 ounce, 6.3 grams

TO-3P(TO-247AD)



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

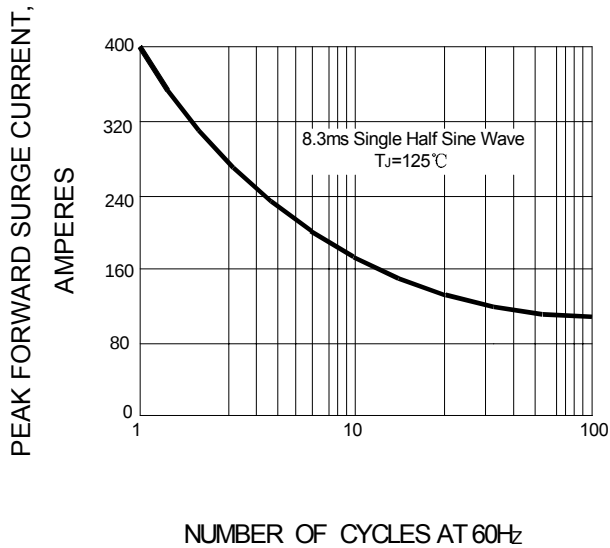
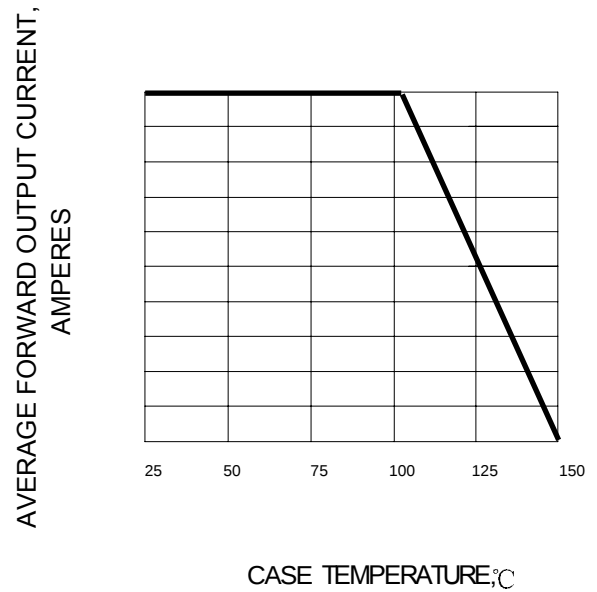
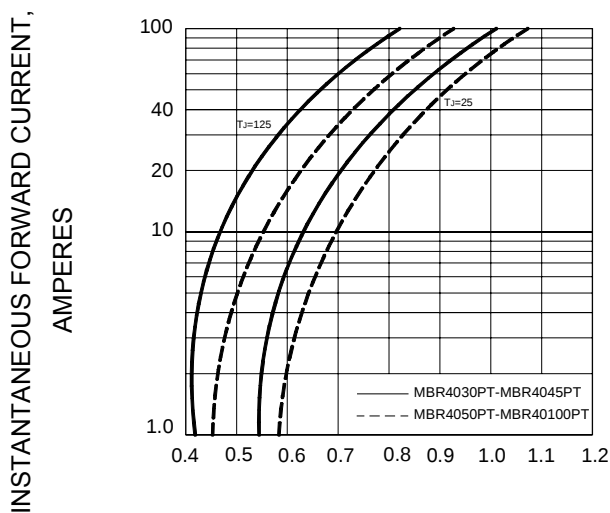
Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

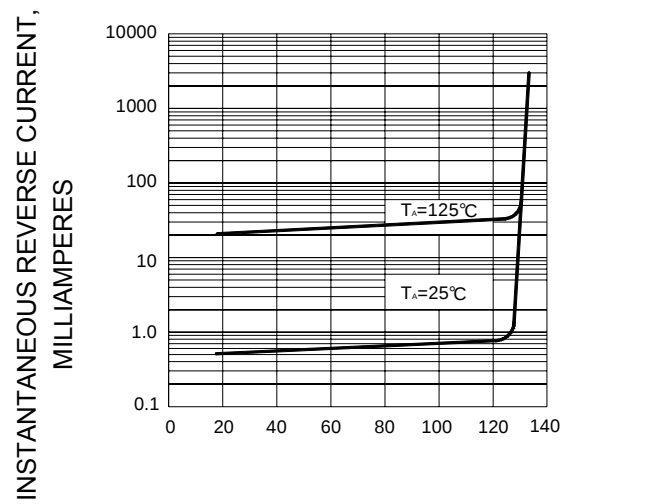
		MBR 4030PT	MBR 4035PT	MBR 4040PT	MBR 4045PT	MBR 4050PT	MBR 4060PT	MBR 4080PT	MBR 40100PT	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	30	35	40	45	50	60	80	100	V
Maximum RMS Voltage	V _{RMS}	21	25	28	32	35	42	56	70	V
Maximum DC blocking voltage	V _{DC}	30	35	40	45	50	60	80	100	V
Maximum average forw ard total device rectified current @T _C = 105°C	I _{F(AV)}	40								A
Peak forw ard surge current 8.3ms single half sine-w ave superimposed on rated load	I _{FSM}	400								A
Maximum forward voltage (I _F =20A,T _C =25) (I _F =20A,T _C =125) (I _F =40A,T _C =25) (I _F =40A,T _C =125)	V _F	- 0.57 0.84 0.72				0.80 0.70 0.95 0.85			V	
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =125°C	I _R	1.0 100								m A
Maximum thermal resistance (Note2)	R _{θJC}	1.4								°C/w
Operating junction temperature range	T _J	- 55 ---- + 150								°C
Storage temperature range	T _{STG}	- 55 ---- + 150								°C

NOTE: 1. Thermal resistance from junction to case.

Ratings AND Characteristic Curves

FIG.1 – PEAK FORWARD SURGE CURRENT

FIG.2 – FORWARD DERATING CURVE

FIG.3 – TYPICAL FORWARD CHARACTERISTIC


INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.4 – TYPICAL REVERSE CHARACTERISTIC


PERCENT OF RATED PEAK REVERSE VOLTAGE,%