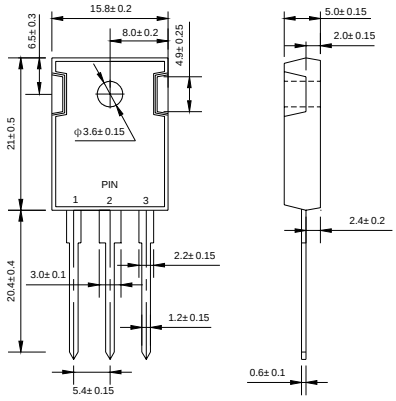
MBR2030PT-MBR2060PT

Schottky Barrier Rectifiers

VOLTAGE RANGE: 30 - 60 V
CURRENT: 20 A

TO-3P(TO-247AD)



Dimensions in millimeters

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(TO-247AD),molded plastic body
- ◇ Terminals:Leads, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Position: Any
- ◇ Weight: 0.223 ounce, 6.3 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

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

		MBR 2030PT	MBR 2035PT	MBR 2040PT	MBR 2045PT	MBR 2050PT	MBR 2060PT	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	30	35	40	45	50	60	V
Maximum RMS Voltage	V_{RMS}	21	25	28	32	35	42	V
Maximum DC blocking voltage	V_{DC}	30	35	40	45	50	60	V
Maximum average forw ard total device rectified current @T_C = 135°C	$I_{F(AV)}$	20						A
Peak forw ard surge current 8.3ms single half sine-w ave superimposed on rated load	I_{FSM}	150						A
Maximum forw ard voltage (Note 1) (I_F=10A,T_C=25 ℃)	V_F	-				0.80		V
(I_F=10A,T_C=125 ℃)		0.57				0.70		
(I_F=20A,T_C=25℃)		0.84				0.95		
(I_F=20A,T_C=125℃)		0.72				0.85		
Maximum reverse current @T_C=25℃	I_R	0.1				0.15		m A
at rated DC blocking voltage @T_C=125℃		15				150		
Maximum thermal resistance (Note2)	$R_{\theta JC}$	2.0						℃/W
Operating junction temperature range	T_J	- 55 ---- + 150						℃
Storage temperature range	T_{STG}	- 55 ---- + 150						℃

NOTE: 1. Pulse test:300μs pulse width,1% duty cycle.

2. Thermal resistance from junction to case.

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Ratings AND Charactieristic Curves

FIG.1 -- PEAK FORWARD SURGE CURRENT

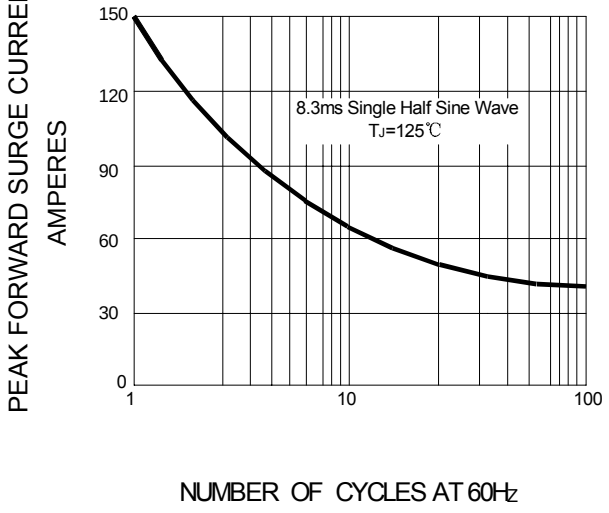

FIG.2 -- FORWARD DERATING CURVE

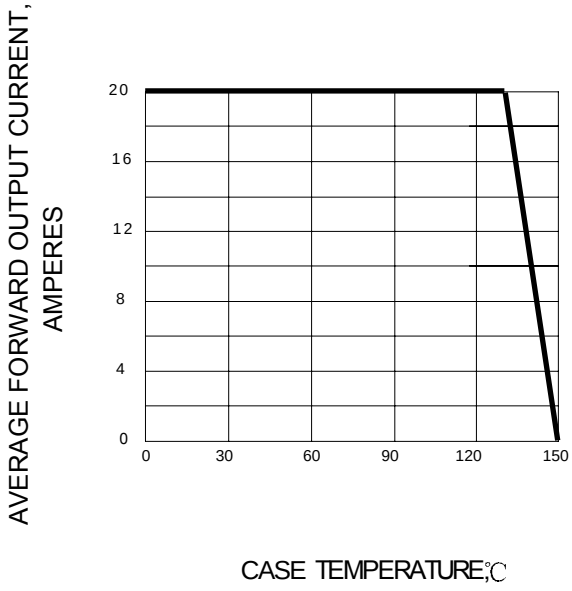

FIG.3 -- TYPICAL FORWARD CHARACTERISTIC

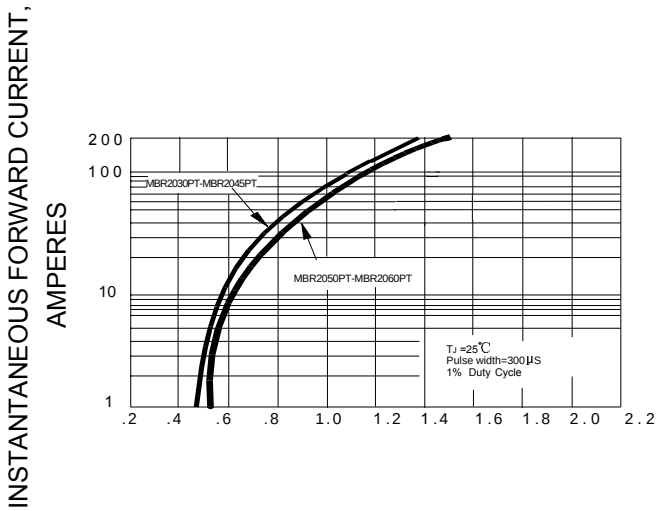

FIG.4 -- TYPICAL REVERSE CHARACTERISTIC