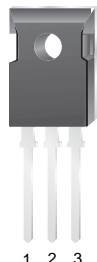


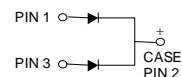
MBR3035PT - MBR3060PT

Features

- Low power loss, high efficiency.
- 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.



TO-3P/TO-247AD



30 Ampere Schottky Barrier Rectifiers

Absolute Maximum Ratings* T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
I _{F(AV)}	Average Rectified Current	30	A
I _{FRM}	Peak Repetitive Forward Current (Rated V _R , Square Wave, 20 KHz) @ T _A = 130°C	30	A
I _{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	200	A
P _D	Total Device Dissipation Derate above 25°C	3.0 25	W mW/°C
R _{θJL}	Thermal Resistance, Junction to Lead	1.4	°C/W
T _{stg}	Storage Temperature Range	-65 to +175	°C
T _J	Operating Junction Temperature	-65 to +150	°C

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Electrical Characteristics T_A = 25°C unless otherwise noted

Symbol	Parameter	Device				Units
		3035PT	3045PT	3050PT	3060PT	
V _R	DC Reverse Voltage (Rated V _R)	35	45	50	60	V
V _{RRM}	Maximum Repetitive Reverse Voltage	35	45	50	60	V
V _{RMS}	Maximum RMS Voltage	24	31	35	42	V
	Voltage Rate of Change (Rated V _R)	10,000				V/μs
I _{RM}	Maximum Instantaneous Reverse Current @ rated V _R T _A = 25°C T _A = 125°C	1.0 60		5.0 100		mA mA
V _{FM}	Maximum Instantaneous Forward Voltage I _F = 20 A, T _C = 25°C I _F = 20 A, T _C = 125°C I _F = 30 A, T _C = 25°C I _F = 30 A, T _C = 125°C	- 0.60 0.76 0.72		0.75 0.65 -		V V V V
I _{RRM}	Peak Repetitive Reverse Surge Current 2.0 us Pulsu Width, f = 1.0 KHz	1.0		0.5		A

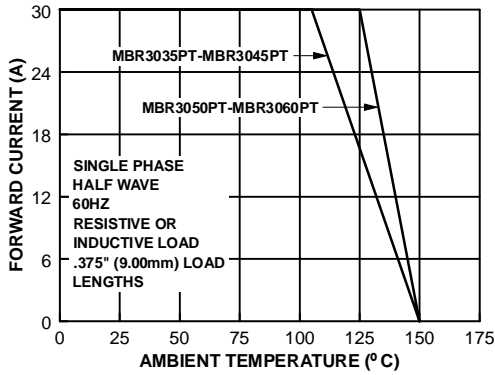
Schottky Barrier Rectifier

(continued)

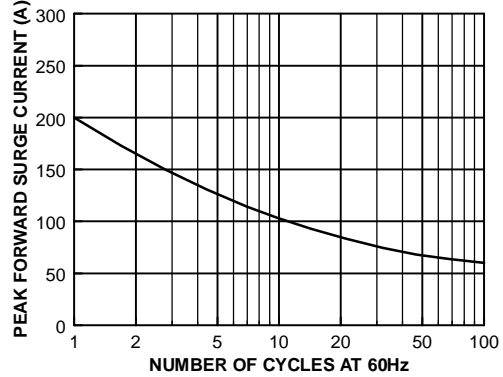
MBR3035PT - MBR3060PT

Typical Characteristics

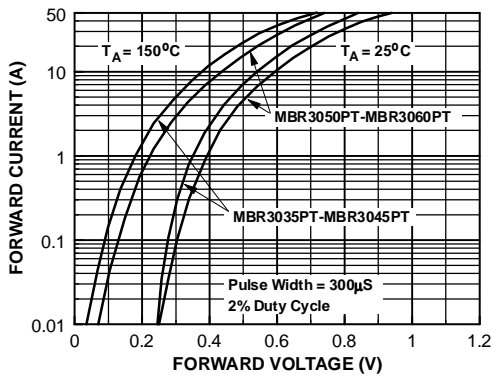
Forward Current Derating Curve



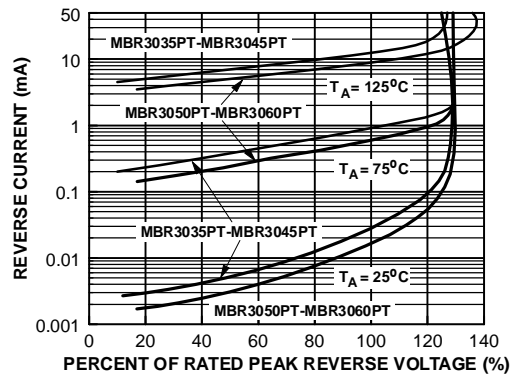
Non-Repetitive Surge Current



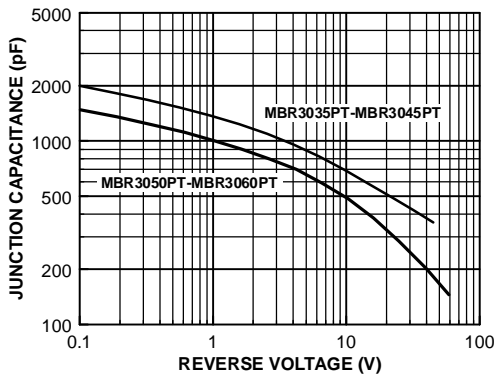
Forward Characteristics



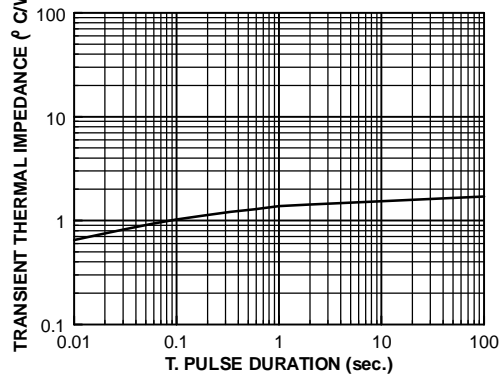
Reverse Characteristics



Typical Junction Capacitance



Transient Thermal Impedance



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DOME™	ISOPLANAR™	Quiet Series™	
E ² CMOS™	MICROWIRE™	SILENT SWITCHER®	
EnSigna™	OPTOLOGIC™	SMART START™	
FACT™	OPTOPLANAR™	SuperSOT™-3	
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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