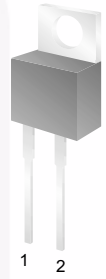
FAIRCHILD SEMICONDUCTOR®

June 2012

MBR1035 - MBR1060
Schottky Rectifiers

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-220AC



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

Symbol	Parameter	Value				Units
		1035	1045	1050	1060	
V_{RRM}	Maximum Repetitive Reverse Voltage	35	45	50	60	V
$I_{F(AV)}$	Average Rectified Forward Current	10				A
I_{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	150				A
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.

Thermal Characteristics

Symbol	Parameter	Value	Units
P_D	Power Dissipation	2.0	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	60	°C/W
$R_{\theta JL}$	Thermal Resistance, Junction to Lead	2.0	°C/W

Electrical Characteritics T_a = 25°C unless otherwise noted

Symbol	Parameter	Value				Units
		1035	1045	1050	1060	
V_F	Forward Voltage I_F = 10A, T_C = 25°C	-		0.80		V
	I_F = 10A, T_C = 125°C	0.57		0.70		V
	I_F = 20A, T_C = 25°C	0.84		0.95		V
	I_F = 20A, T_C = 125°C	0.72		0.85		V
I_R	Reverse Current @ rated V_R T_C = 25°C	0.1				mA
	T_C = 125°C	15				mA
I_{RRM}	Peak Repetitive Reverse Surge Current 2.0μs Pulse Width, f = 1.0 KHz	1.0		0.5		A

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Typical Performance Characteristics

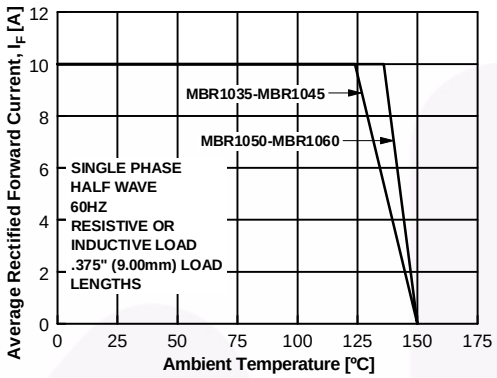


Figure 1. Forward Current Derating Curve

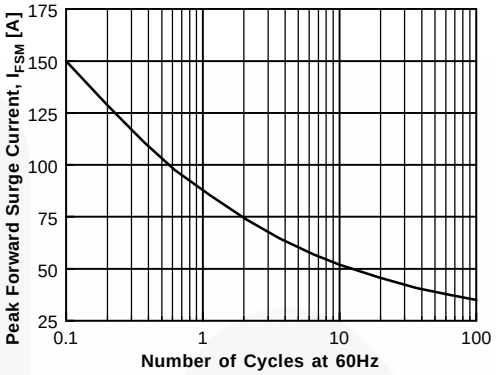


Figure 2. Non-Repetitive Surge Current

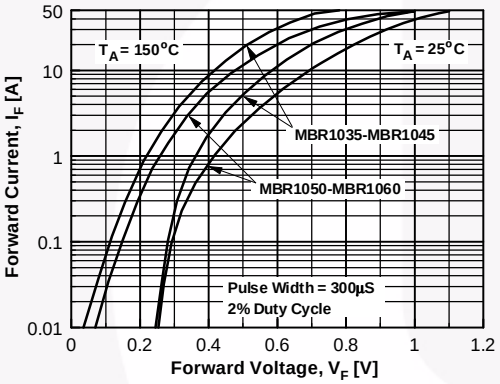


Figure 3. Forward Voltage Characteristics

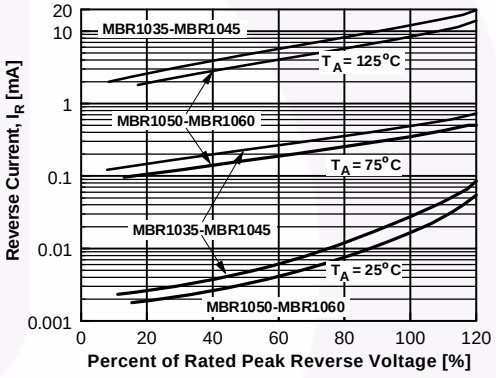


Figure 4. Reverse Current vs Reverse Voltage

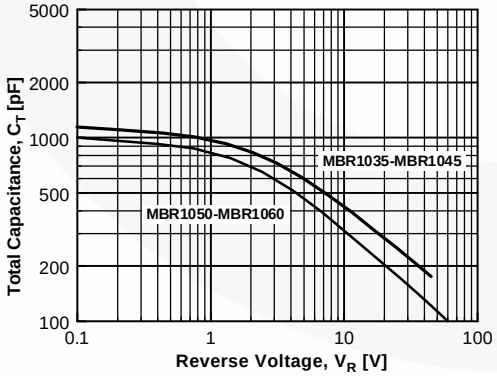


Figure 5. Total Capacitance

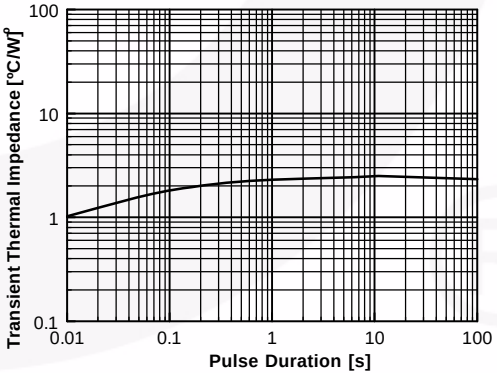


Figure 6. Thermal Impedance Characteristics

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No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.
Obsolete	Not In Production	Datasheet contains specifications on a product that is discontinued by Fairchild Semiconductor. The datasheet is for reference information only.

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