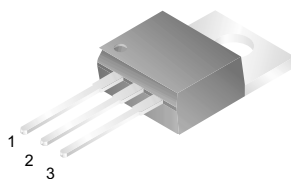


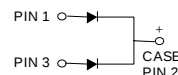
MBR1535CT - MBR1560CT

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.
- Guarding for over voltage protection.



TO-220AB



Schottky Rectifiers

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value				Units
		1535	1545	1550	1560	
V_{RRM}	Maximum Repetitive Reverse Voltage	35	45	50	60	V
$I_{F(AV)}$	Average Rectified Forward Current .375 " lead length @ $T_A = 105^\circ\text{C}$	15				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				$^\circ\text{C}$
T_J	Operating Junction Temperature	-65 to +150				$^\circ\text{C}$

*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	41.7	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	60	$^\circ\text{C}/\text{W}$
$R_{\theta JL}$	Thermal Resistance, Junction to Lead	3.0	$^\circ\text{C}/\text{W}$

Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Device				Units
		1535	1545	1550	1560	
V_F	Forward Voltage $I_F = 7.5\text{ A}$, $T_C = 25^\circ\text{C}$	-	-	0.75	-	V
	$I_F = 7.5\text{ A}$, $T_C = 125^\circ\text{C}$	0.57	-	0.65	-	V
	$I_F = 15\text{ A}$, $T_C = 25^\circ\text{C}$	0.84	-	-	-	V
	$I_F = 15\text{ A}$, $T_C = 125^\circ\text{C}$	0.72	-	-	-	V
I_R	Reverse Current @ rated V_R $T_A = 25^\circ\text{C}$	0.1	-	1.0	-	mA
	$T_A = 125^\circ\text{C}$	15	-	50	-	mA
I_{RRM}	Peak Repetitive Reverse Surge Current 2.0 μs Pulse Width, $f = 1.0\text{ KHz}$	1.0	-	0.5	-	A

Typical Characteristics

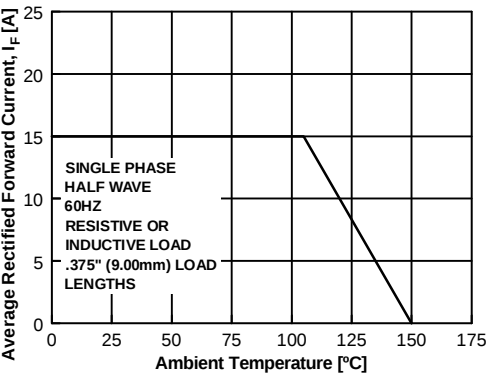


Figure 1. Forward Current Derating Curve

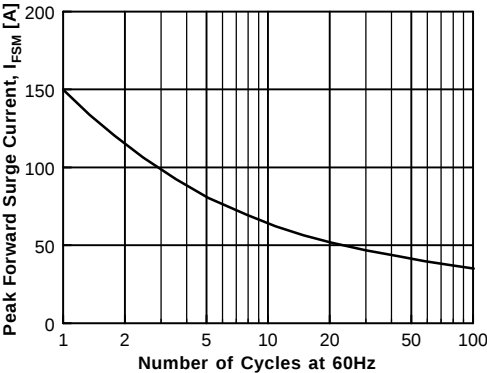


Figure 2. Non-Repetitive Surge Current

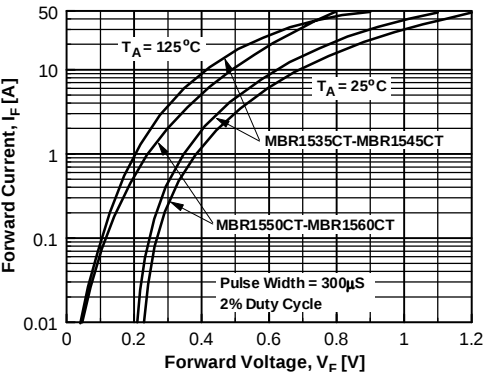


Figure 3. Forward Voltage Characteristics

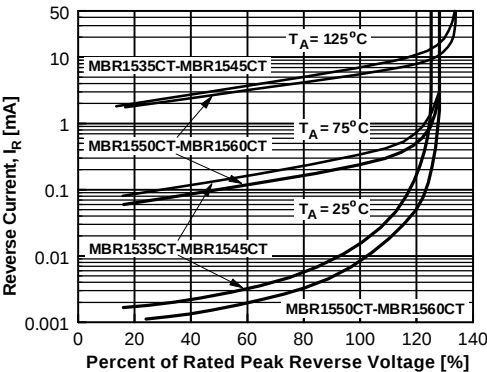


Figure 4. Reverse Current vs Reverse Voltage

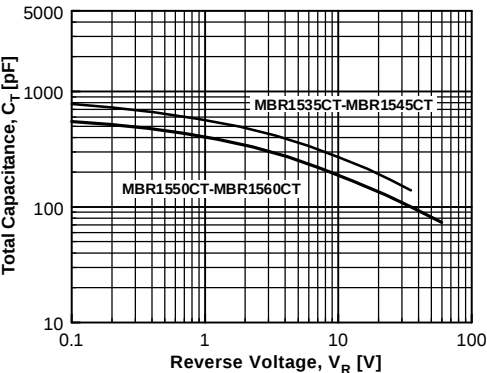


Figure 5. Total Capacitance

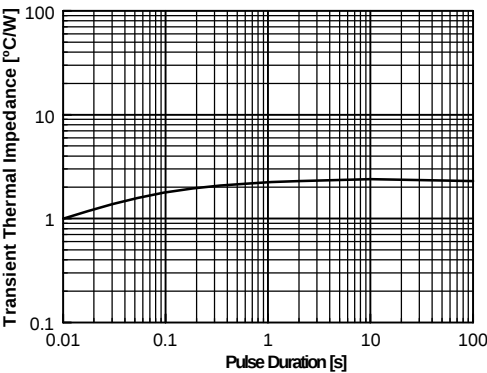


Figure 6. Thermal Impedance Characteristics

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CROSSVOLT™	GlobalOptoisolator™	POP™	SuperSOT™-3	
DenseTrench™	GTO™	Power247™	SuperSOT™-6	
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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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