MBR2535CT - MBR2560CT **25 Ampere Schottky Barrier Rectifiers** 

## **Features**

- Low power loss, high efficiency.
- High surge capability.

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- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- Metal silicon junction, majority carrier conduction. •
- High current capability, low forward voltage drop. •
- Guardring for over voltage protection.



# PIN1 C CASE PIN2

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

Symbol	Parameter		Units			
		2535CT	2545CT	2550CT	2560CT	Units
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	35	45	50	60	V
I <sub>F(AV)</sub>	Average Rectified Forward Current .375 " lead length @ T <sub>A</sub> = 130℃		25			А
I <sub>FSM</sub>	Non-repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave	200		А		
T <sub>STG</sub>	Storage Temperature Range		-65 to +175			
ТJ	Operating Junction Temperature Range	-65 to +150				C

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

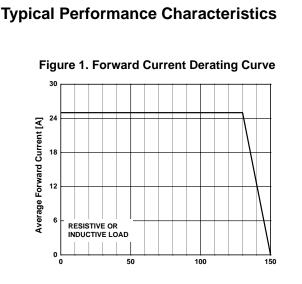
## **Thermal Characteristics**

Symbol	Parameter	Value	Units
PD	Power Dissipation	2.0	W
R <sub>0JA</sub>	Thermal Resistance, Junction to Ambient	60	°C/W
$R_{ ext{ heta}JL}$	Thermal Resistance, Junction to Lead	1.5	°C/W

**Electrical Characteristics**  $T_A = 25^{\circ}C$  unless otherwise specified

Symbol	Parameter	Value				Units
	Farameter	2535CT	2545CT	2550CT	2560CT	Units
V <sub>F</sub>	Maximum Forward Voltage, per leg $I_F = 12.5A$ , $T_C = 25^{\circ}C$ $I_F = 12.5A$ , $T_C = 125^{\circ}C$ $I_F = 25A$ , $T_C = 25^{\circ}C$ $I_F = 25A$ , $T_C = 125^{\circ}C$	0.82 0.73		0.75 0.65		V
I <sub>R</sub>	Maximum Reverse Current at rated V <sub>RRM</sub> , per leg @ $T_A = 25^{\circ}C$ @ $T_A = 125^{\circ}C$		0.2 15.0		0.2 10.0	
I <sub>RRM</sub>	Peak Repetitive Reverse Surge Current, per leg 2.0 $\mu$ s Pulse Width, f = 1.0 KHz		1.0		0.5	
Cj	Typical Junction Capacitance, per leg	60	00	46	60	pF

December 2011



Case Temperature [°C]



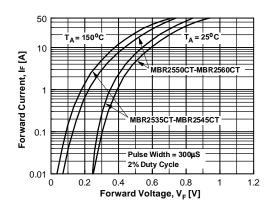


Figure 5. Total Capacitance, per leg

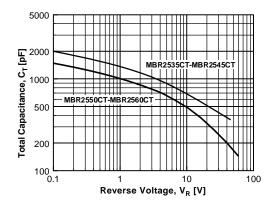
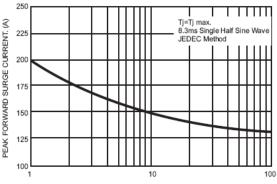


Figure 2. Non-Repetitive Surge Current, per leg



NUMBER OF CYCLES AT 60Hz

Figure 4. Reverse Current vs Reverse Voltage, per leg

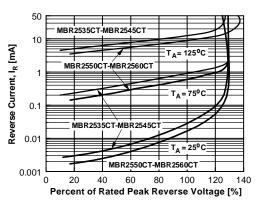
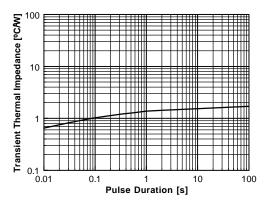


Figure 6. Thermal Impedance Characteristics



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