

# Trench MOS Barrier Schottky Rectifier

## Features

- Advanced trench technology
- Low forward voltage drop
- Low power losses
- High efficiency operation
- Lead Free Finish, RoHS Compliant

## Applications

- DC/DC Converters
- AC/DC Adaptors
- Switching Power Supplies
- Freewheeling Diodes

Maximum ratings and electrical characteristics (T<sub>J</sub> = 25°C unless otherwise noted)

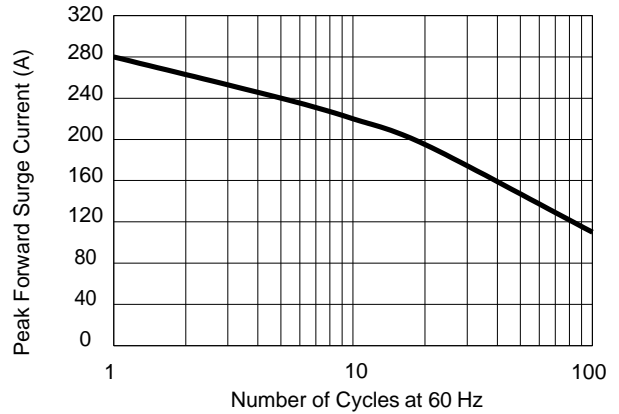
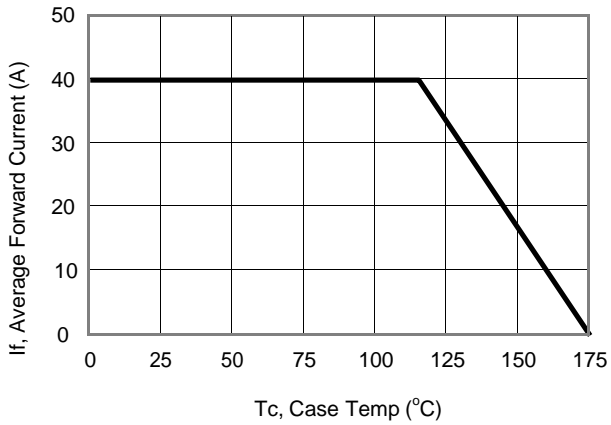
Parameter		Symbol	Limit		Unit
Maximum repetitive peak reverse voltage		VRRM	300		V
Maximum average forward rectified current	device	IF(AV)	0		A
	per diode				
Peak forward surge current 8.3 ms single half sine- wave superimposed on rated load per diode		IFSM	280		A
Operating junction and storage temperature range		TJ, TSTG	-50 to +175		
Typical thermal resistance per leg	TO-247	R <sub>JC</sub>	2		°C/W
Instantaneous forward voltage per diode			TYP.	MAX.	V
	IF=5A	TJ=25°C	0.7		
	IF=5A		0.6		
	IF=20A		0.88	0.94	
	IF=20A	TJ=125°C	0.82	-	
Instantaneous reverse current per diode at rated reverse voltage	TJ=25°C	IR(2)	1		uA
	TJ=125°C		1		mA

### Notes:

(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≅ 40 ms

## RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



Current Derating, Case

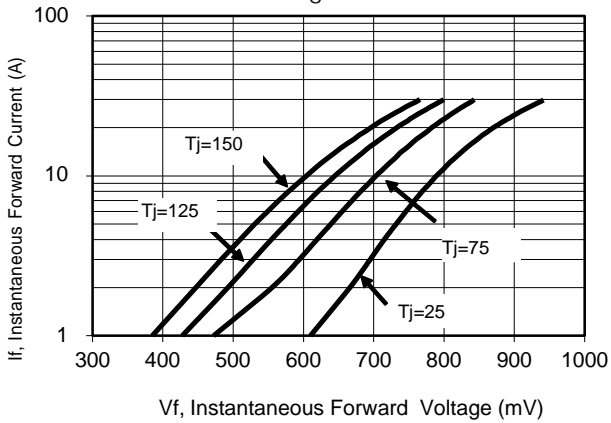
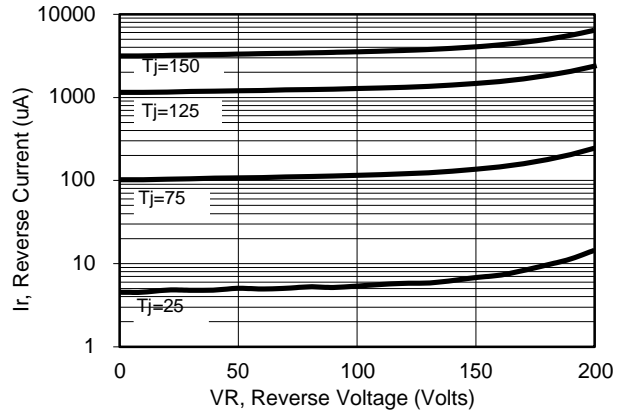
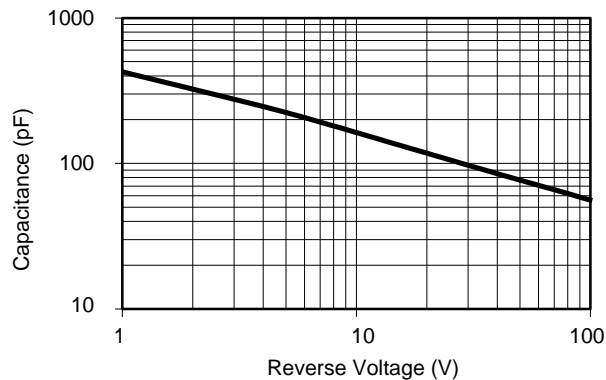


Figure 2: Maximum Repetitive Surge Current



Typical Forward Voltage



Typical Reverse Current

Typical Junction Capacitance

