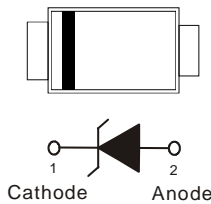


# 3L40AF SMAF

## Trench MOS Barrier Schottky Rectifier

SMAF



### 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

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

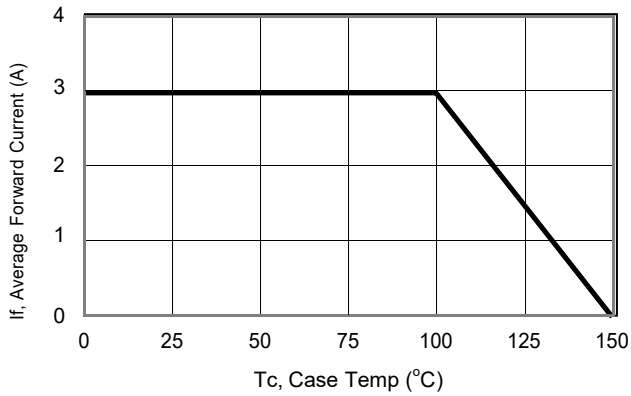
Parameter		Symbol	Limit		Unit
Maximum repetitive peak reverse voltage		V <sub>RRM</sub>	40		V
Maximum average forward rectified current		I <sub>F(AV)</sub>	3		A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load per diode		I <sub>FSM</sub>	50		A
Operating junction and storage temperature range		T <sub>J</sub> , T <sub>STG</sub>	-65 to +150		°C
Typical thermal resistance per diode (Mounted on FR-4 PCB)		R <sub>θJA</sub>	150		°C/W
Instantaneous forward voltage	I <sub>F</sub> =3A	T <sub>J</sub> =25°C	TYP.	MAX.	V
		T <sub>J</sub> =125°C	0.39	-	
	I <sub>F</sub> =3A	T <sub>J</sub> =125°C	0.32	-	
Instantaneous reverse current per diode at rated reverse voltage	T <sub>J</sub> =25°C	I <sub>R(2)</sub>	100	-	uA
	T <sub>J</sub> =125°C		100	-	mA

Notes:

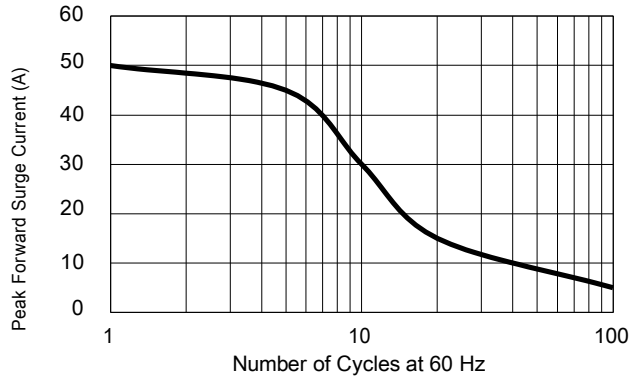
(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

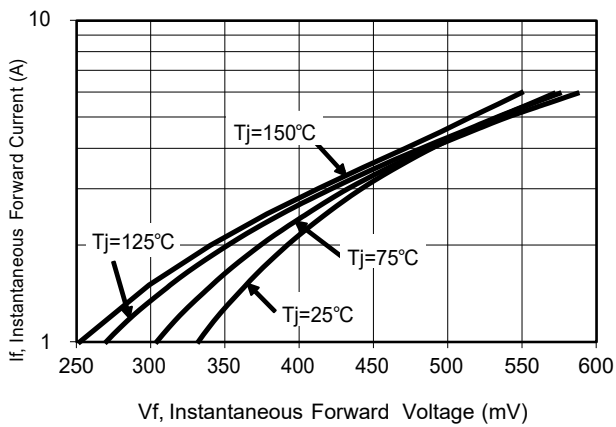
## RATINGS AND CHARACTERISTICS CURVES



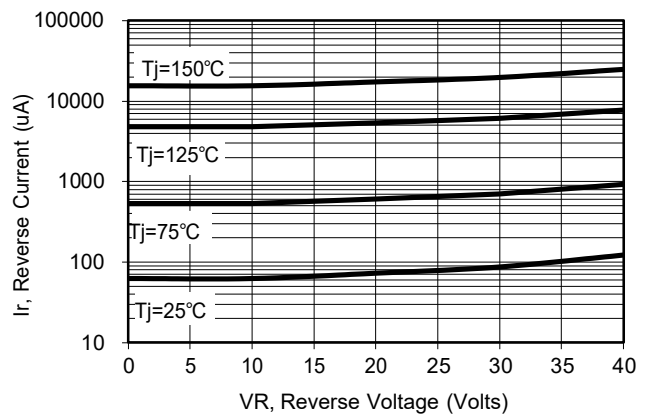
Current Derating, Case



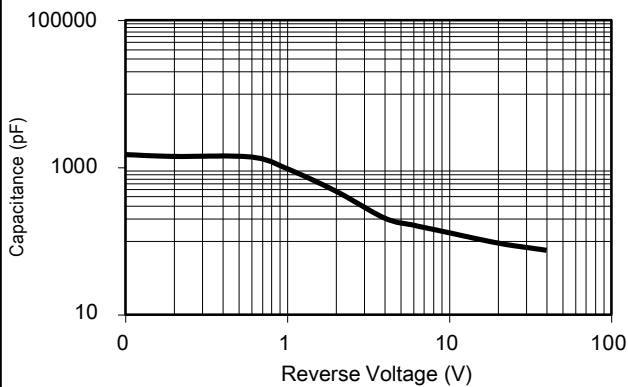
Maximum Repetitive Surge Current



Typical Forward Voltage

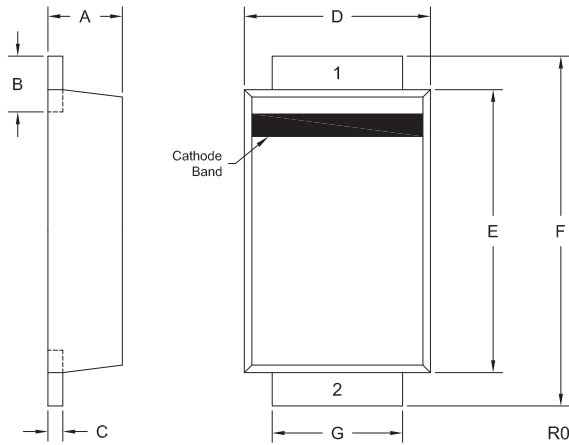


Typical Reverse Current



Typical Junction Capacitance

## PACKAGE OUTLINE



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.035	0.044	0.90	1.10
B	0.021	0.038	0.55	0.95
C	0.006	0.010	0.15	0.25
D	0.094	0.103	2.40	2.60
E	0.145	0.154	3.70	3.90
F	0.177	0.193	4.50	4.90
G	0.065	0.073	1.65	1.85

SMAFL (REV: R0)