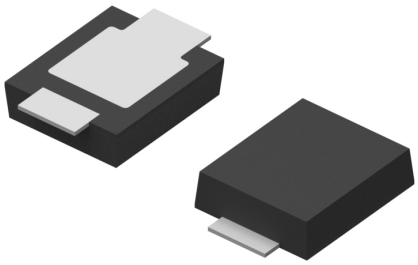
10L100SC SMC

Trench MOS Barrier Schottky Rectifier

SMC-S



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 (TJ = 25°C unless otherwise noted)

Parameter			Symbol	Limit		Unit
Maximum repetitive peak reverse voltage			V_{RRM}	100		V
Maximum average forward rectified current			$I_{F(AV)}$	10		A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load per diode			I_{FSM}	220		A
Operating junction and storage temperature range			T_J, T_{STG}	-40 to +150		°C
Typical thermal resistance per leg		**SMC**	$R_{\theta JA}$	75		°C/W
				TYP.	MAX.	
Instantaneous forward voltage per diode	I_F=5A	T_J=25°C	$V_{F(1)}$	0.55	-	V
	I_F=10A			0.70	0.73	
	I_F=5A	T_J=125°C		0.48	-	
	I_F=10A			0.59	-	
Instantaneous reverse current per diode at rated reverse voltage		T_J=25°C	$I_{R(2)}$	-	15	uA
		T_J=125°C		-	10	mA

Notes:

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

(2) Pulse test: Pulse width ≦ 40 ms

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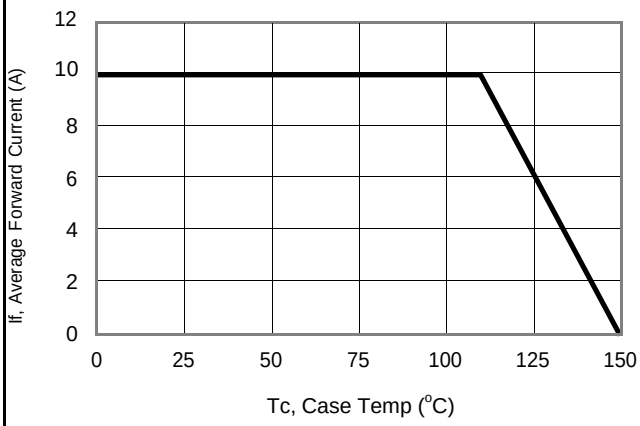
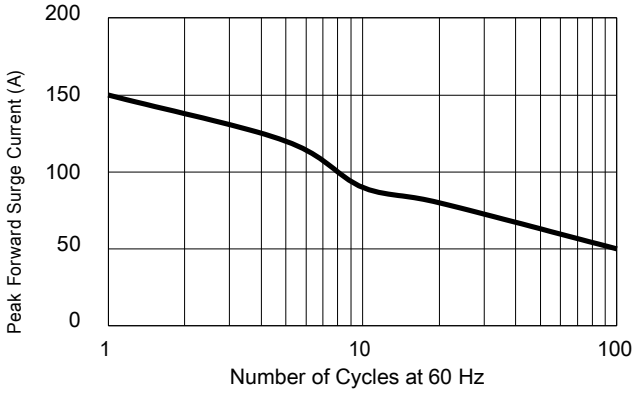
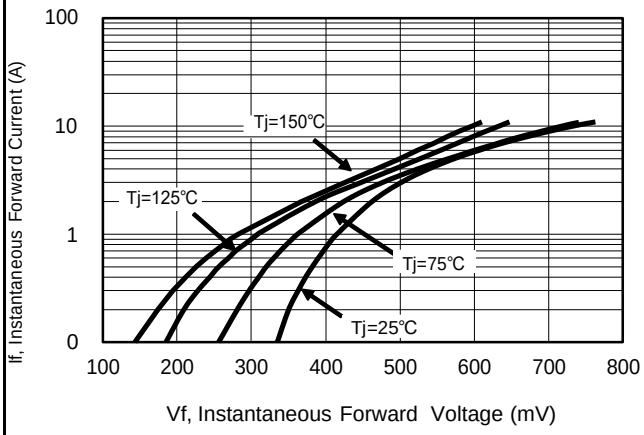
RATINGS AND CHARACTERISTICS CURVES (TA = 25 ˚C unless otherwise noted)



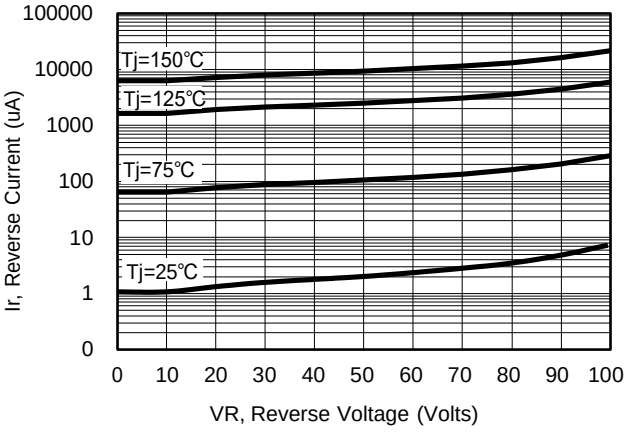
Current Derating, Case



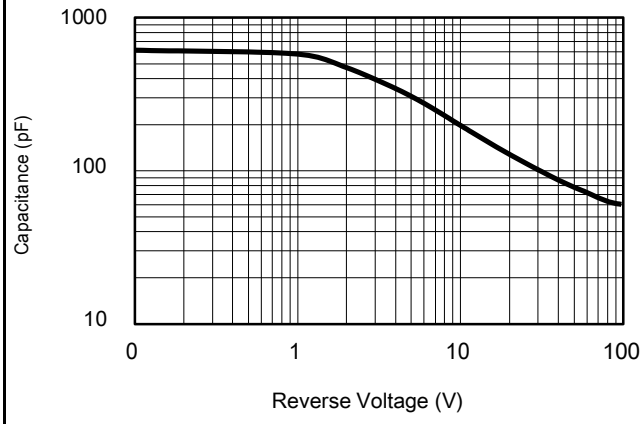
Maximum Repetitive Surge Current



Typical Forward Voltage



Typical Reverse Current



Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS

SMC-S