

Trench MOS Barrier Schottky Rectifier

TSP5L60B

SMB



Cathode  Anode

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_J = 25°C unless otherwise noted)

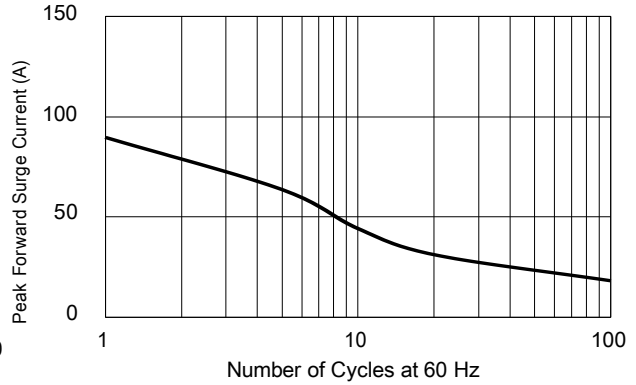
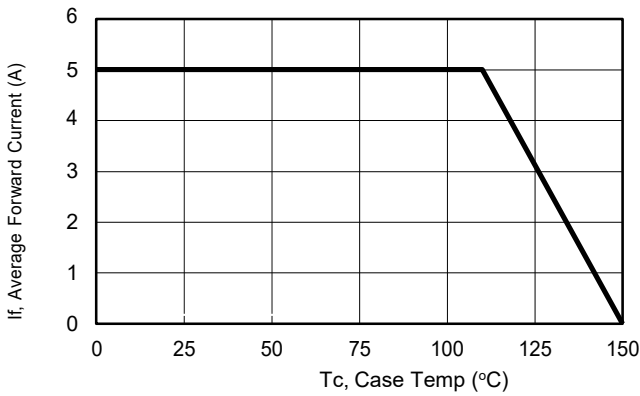
Parameter	Symbol	Limit	Unit		
Maximum repetitive peak reverse voltage	VRRM	60	V		
Maximum average forward rectified current	IF(AV)	5	A		
Peak forward surge current 8.3 ms single half sine- wave superimposed on rated load per diode	IFSM	80	A		
Operating junction and storage temperature range	TJ, TSTG	-50 to +150	°C		
Typical thermal resistance per diode(Mounted on FR-4 PCB)	RθJC	22	°C/W		
Instantaneous forward voltage per diode	VF(1)	TYP.	MAX.	V	
		IF=1A TJ=25°C	0.31		0.36
		IF=1A TJ=125°C	0.25		-
		IF=5A TJ=25°C	0.44		0.49
		IF=5A TJ=125°C	0.38		-
Instantaneous reverse current per diode at rated reverse voltage	IR(2)	TJ=25°C	-	100	uA
		TJ=125°C	5	15	mA

Notes:

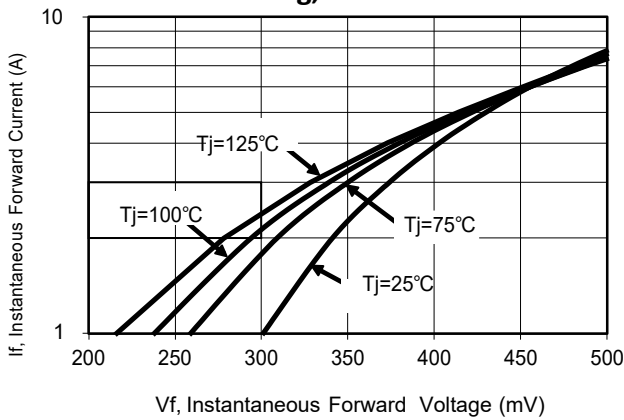
(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≦ 40 ms

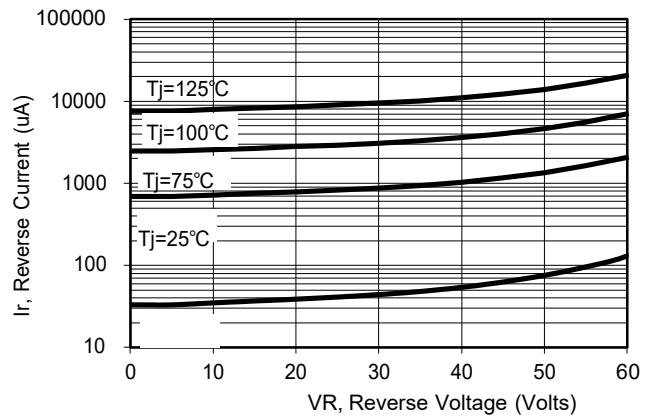
RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



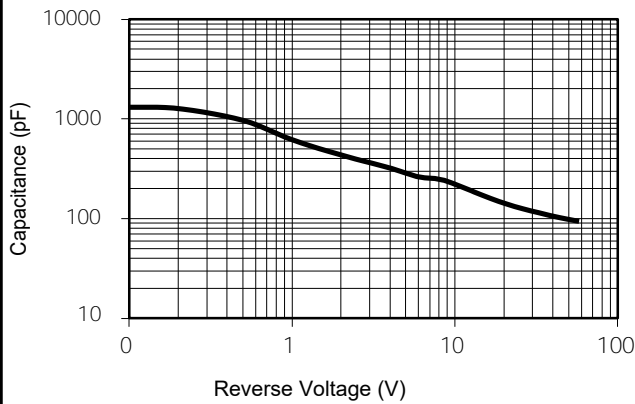
Current Derating, Case



Maximum Repetitive Surge Current



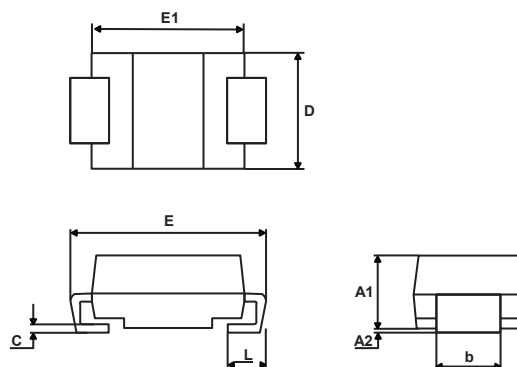
Typical Forward Voltage



Typical Reverse Current

PACKAGE OUTLINE DIMENSIONS

SMB dimension definitions



SMB dimension values

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A1	1.90	2.45	0.075	0.096
A2	0.05	0.20	0.002	0.008
b	1.95	2.20	0.077	0.087
c	0.15	0.40	0.006	0.016
D	3.30	3.95	0.130	0.156
E	5.10	5.60	0.201	0.220
E1	4.05	4.60	0.159	0.181
L	0.75	1.50	0.030	0.059