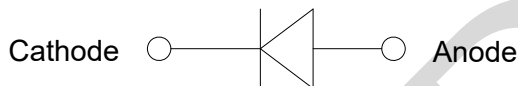
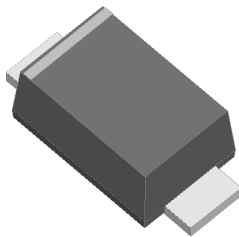


Trench MOS Barrier Schottky Rectifier

SOD-123
TSP3P40FL



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)

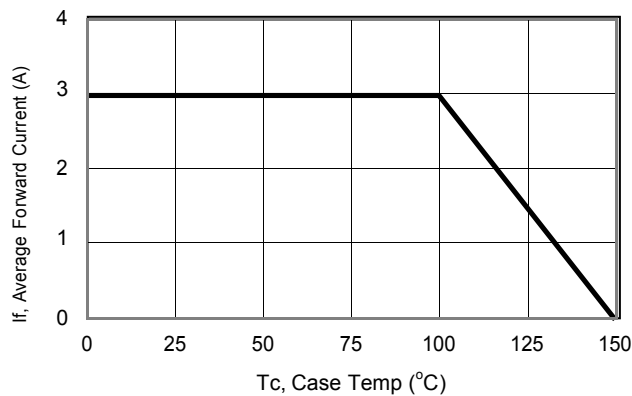
Parameter			Symbol	Limit		Unit
Maximum repetitive peak reverse voltage			VRRM	40		V
Maximum average forward rectified current			IF(AV)	3		A
Peak forward surge current 8.3 ms single half sine- wave superimposed on rated load per diode			IFSM	50		A
Operating junction and storage temperature range			TJ, TSTG	-50 to +150		°C
Typical thermal resistance per diode (Mounted on FR-4 PCB)			RθJC	150		°C/W
Instantaneous forward voltage			VF(1)	TYP.	MAX.	V
	IF=3A	TJ=25°C		0.39	0.46	
	IF=3A	TJ=25°C		0.32	-	
Instantaneous reverse current per diode at rated reverse voltage		TJ=25°C	IR(2)	100	500	uA
		TJ=125°C		20	-	mA

Notes:

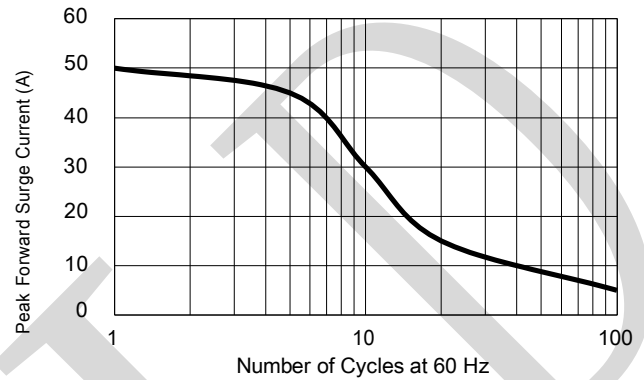
(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

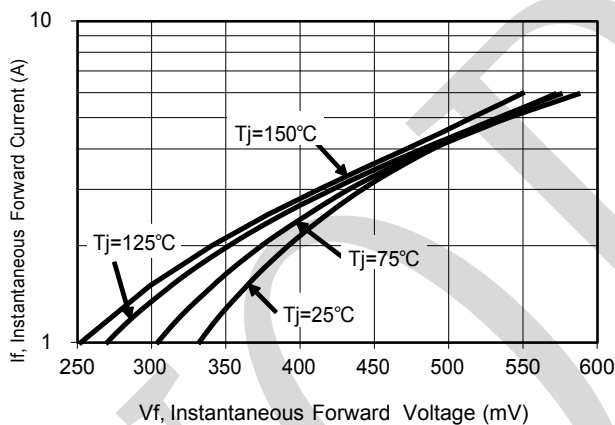
RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



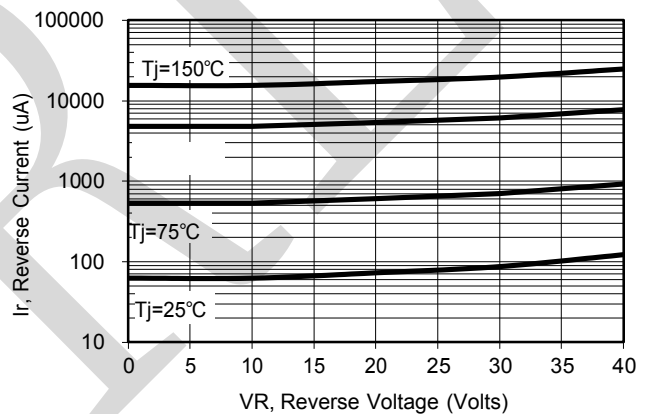
Current Derating, Case



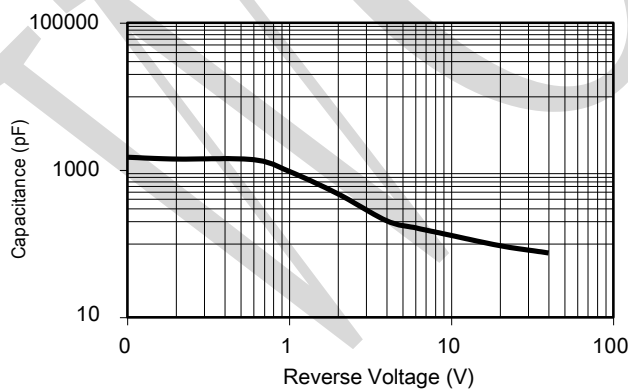
Maximum Repetitive Surge Current



Typical Forward Voltage



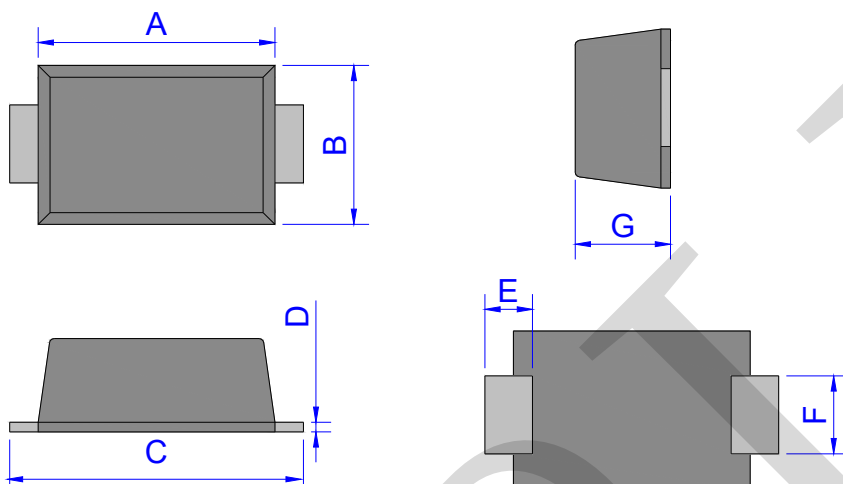
Typical Reverse Current



Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS

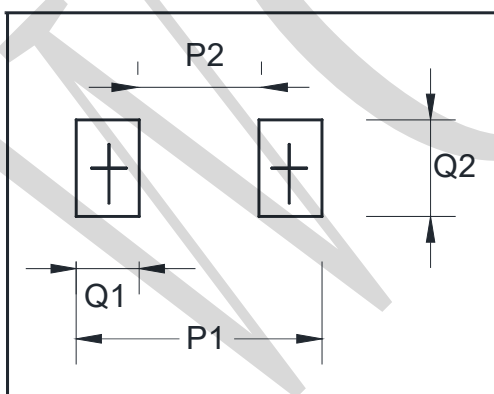
Note: unit mm(Mil)



SOD-123 Mechanical Data

UNIT		A	B	C	D	E	F	G
mm	max	3.0	2.0	3.95	0.25	0.9	1.2	1.35
	min	2.6	1.6	3.45	0.1	0.3	0.8	0.95
mil	max	118.1	78.7	155.5	9.8	35.4	47.2	53.1
	min	102.4	63.0	135.8	3.93	11.8	31.5	37.4

SOD-123 Suggested Pad Layout



UNIT		P1	Q1	Q2
mm	min	1.5	1.3	1.3
mil	min	59.0	51.2	51.2