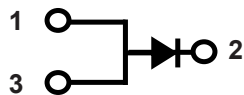
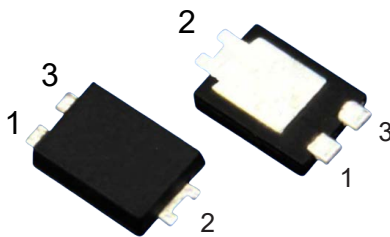


Trench MOS Barrier Schottky Rectifier

TSP10V120SP

TO-277



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)

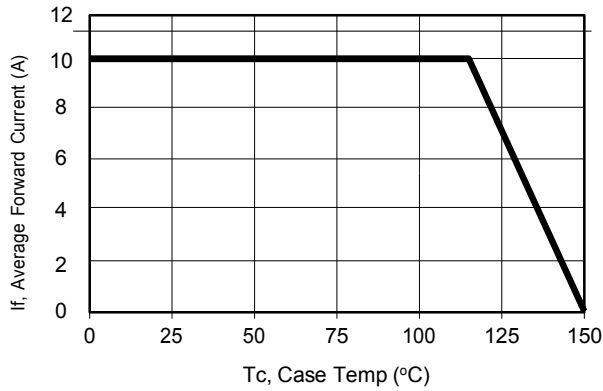
Parameter			Symbol	Limit		Unit
Maximum repetitive peak reverse voltage			VRRM	120		V
Maximum average forward rectified current			IF(AV)	10.0		A
Peak forward surge current 8.3 ms single half sine- wave superimposed on rated load per diode			IFSM	120		A
Operating junction and storage temperature range			TJ, TSTG	-55 to +150		°C
Typical thermal resistance per diode(Mounted on FR-4 PCB)			RθJC	25		°C/W
Instantaneous forward voltage per diode			VF(1)	TYP.	MAX.	V
	IF=2A	TJ=25°C		0.47	0.50	
	IF=2A	TJ=125°C		0.42	-	
	IF=10A	TJ=25°C		0.65	0.70	
	IF=10A	TJ=125°C		0.60	-	
Instantaneous reverse current per diode at rated reverse voltage		TJ=25°C	IR(2)	10	100	uA
		TJ=125°C		20	-	mA

Notes:

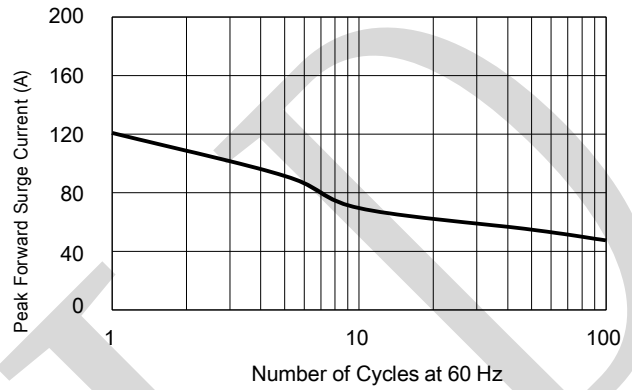
(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

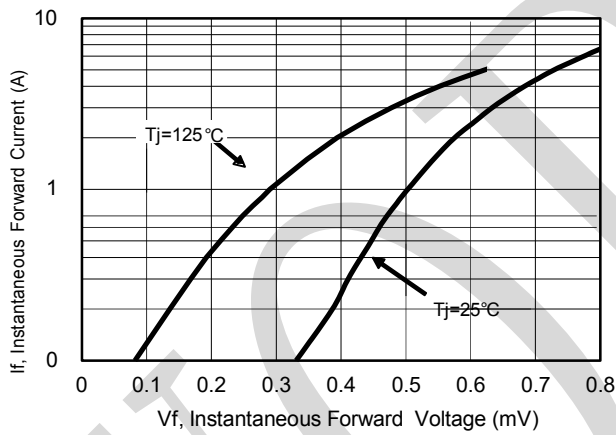
RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



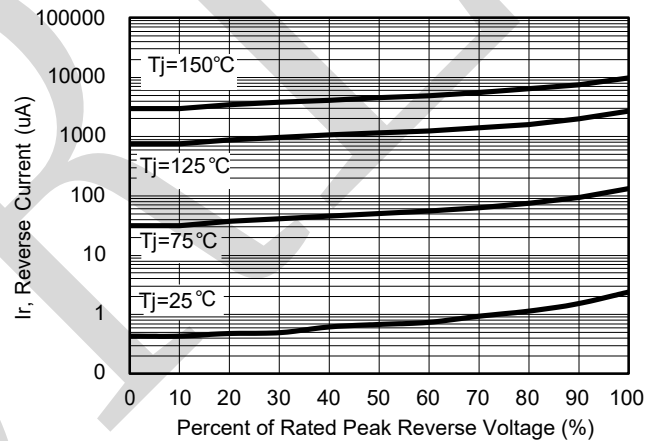
Current Derating, Case



Maximum Repetitive Surge Current



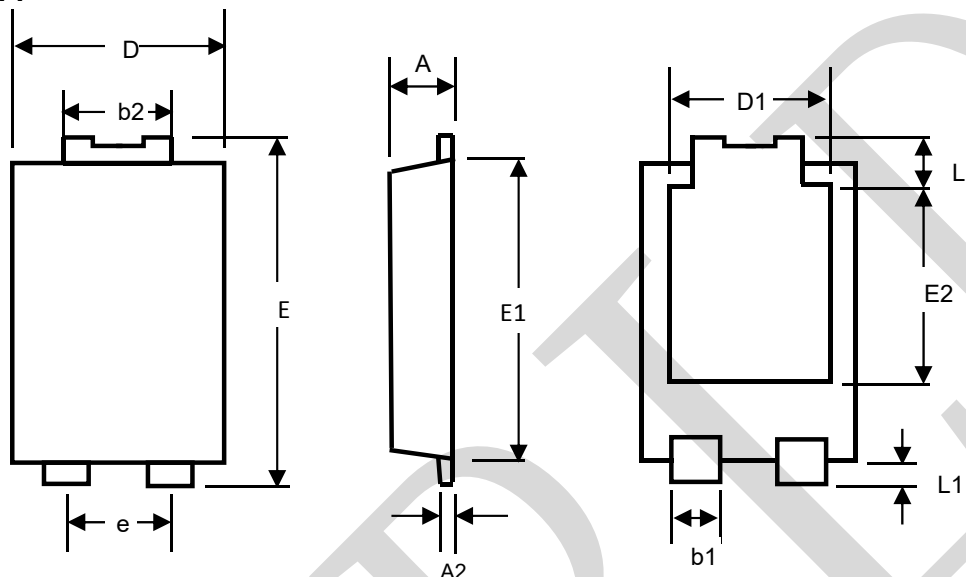
Typical Forward Voltage



Typical Reverse Current

PACKAGE OUTLINE DIMENSIONS

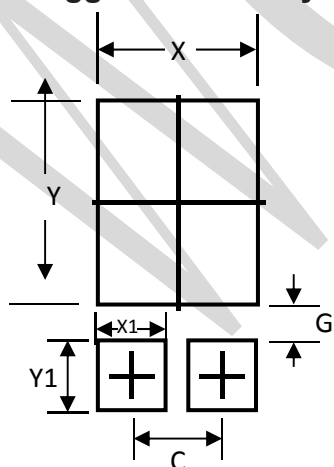
TO-277



TO-277 mechanical data

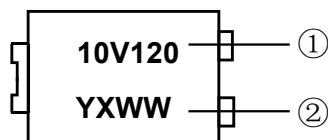
UNIT		A	A2	b1	b2	D	D1	e	E	E1	E2	L	L1
mm	max	1.3	0.4	1.0	1.9	4.3	3.05	2.0	6.6	5.75	3.55	1.0	0.7
	min	1.1	0.2	0.8	1.7	3.9		1.8	6.4	5.3		0.8	0.5
mil	max	51.18	15.75	39.37	74.80	169.3	120.0	78.74	259.8	226.3	139.7	39.37	27.55
	min	43.30	7.87	31.49	66.93	153.5		70.86	252.0	208.6		31.49	19.69

TO-277 Suggested Pad Layout



UNIT		C	G	X	X1	Y	Y1
mm	min	1.80	0.90	3.4	1.4	4.9	1.4
mil	min	78.86	35.43	133.86	35.43	192.91	55.12

Marking Information



①Product model :TSP10V120SP Referred to as 10V120

②PDC information:

Y X WW

WW:Week code(01 to 53)

X:Internal identification code

Y:Year code(ex:0=2020)