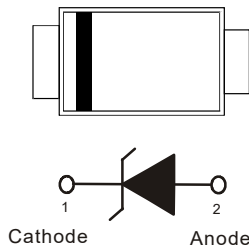


Trench MOS Barrier Schottky Rectifier

Features

- Advanced trench technology
- Low forward voltage drop
- Low power losses
- High efficiency operation
- Lead Free Finish, RoHS Compliant

TSP5L60AF
SMAF



Applications

- DC/DC Converters
- AC/DC Adaptors
- Switching Power Supplies
- Freewheeling Diodes

Maximum ratings and electrical characteristics (T_J = 25°C unless otherwise noted)

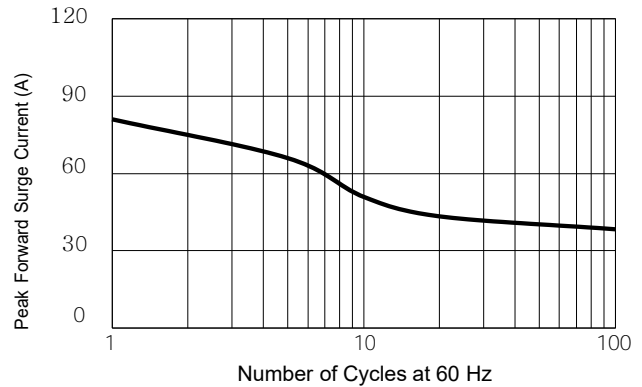
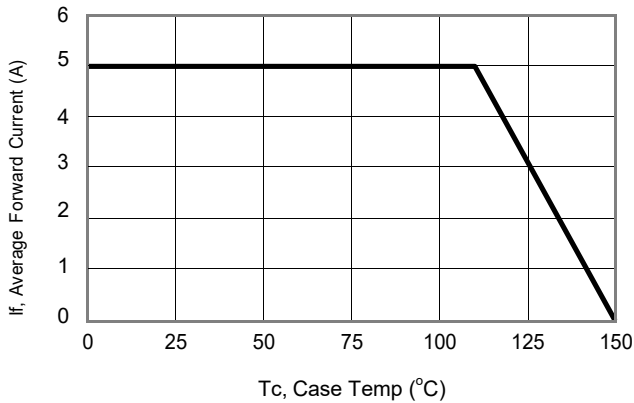
Parameter		Symbol	Limit		Unit	
Maximum repetitive peak reverse voltage		VRRM	60		V	
Maximum average forward rectified current		IF(AV)	5		A	
Peak forward surge current 8.3 ms single half sine- wave superimposed on rated load per diode		IFSM	80		A	
Operating junction and storage temperature range		TJ, TSTG	-50 to +150		°C	
Typical thermal resistance per diode (Mounted on FR-4 PCB)		RθJC	20		°C/W	
Instantaneous forward voltage		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	TJ=25°C	IR(2)	10	100	µA	
	TJ=125°C		10	-	mA	

Notes:

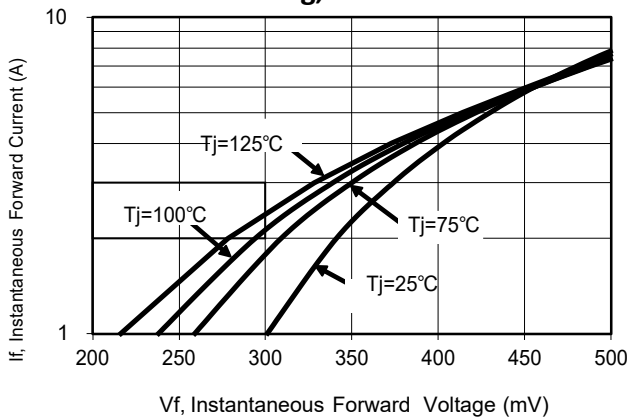
(1) Pulse test: 300 µs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≦ 40 ms

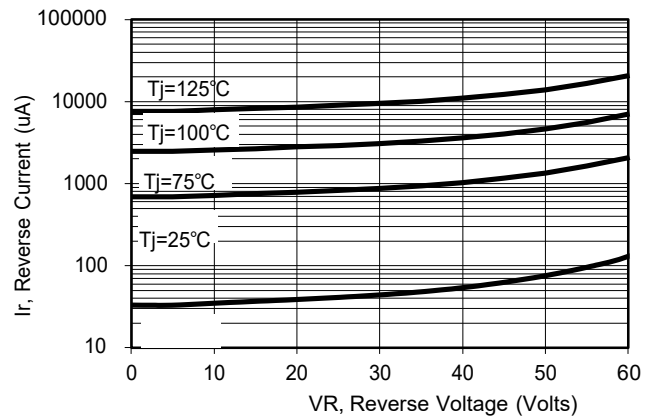
RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



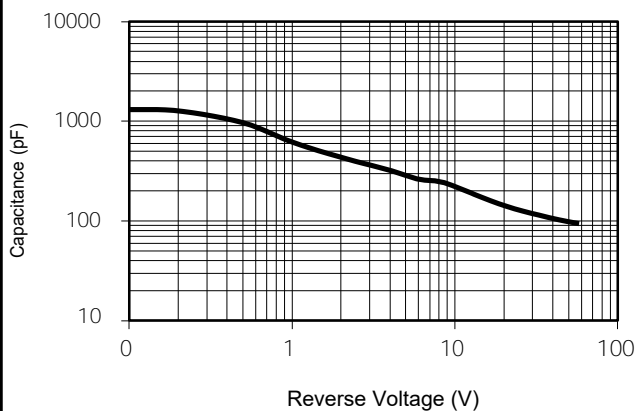
Current Derating, Case



Maximum Repetitive Surge Current



Typical Forward Voltage

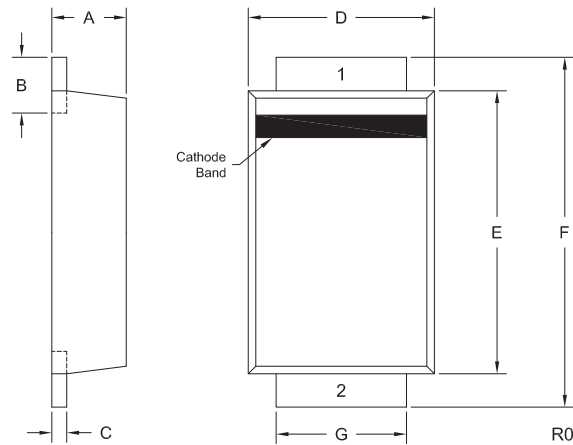


Typical Reverse Current

Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS

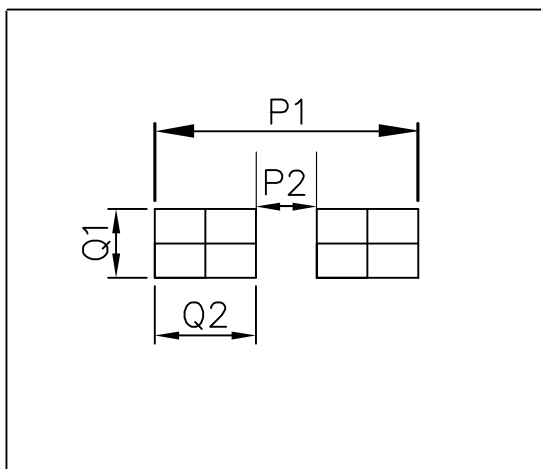
SMAF



SMAF mechanical data

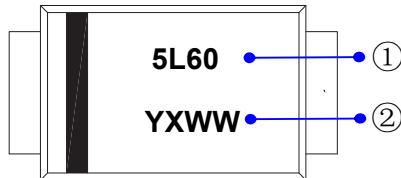
UNIT		A	B	C	D	E	F	G
mm	max	1.10	0.95	0.25	2.8	3.9	4.9	1.65
	min	0.85	0.50	0.11	2.2	3.2	4.2	1.20
mil	max	43.30	37.40	9.84	110.24	153.54	192.91	64.96
	min	33.46	19.68	4.33	86.61	125.98	165.35	47.24

SMAF Suggested Pad Layout



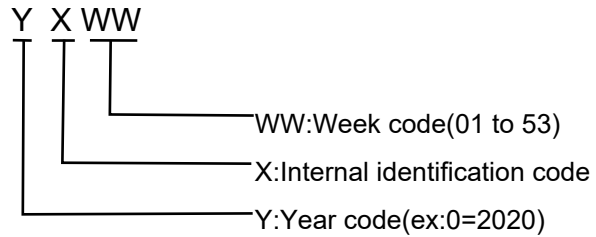
UNIT		P1	P2	Q1	Q2
mm	min	5.10	1.50	1.7	1.8
mil	min	200.8	59.05	67.0	70.87

Marking Information



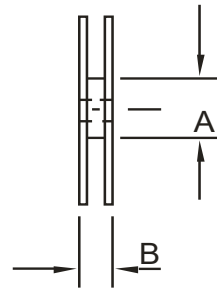
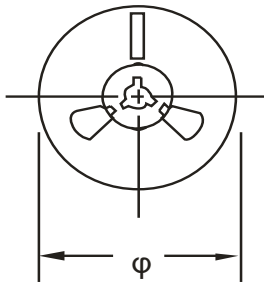
① Product model : TSP5L60AF is abbreviated to 5L60

② PDC information:

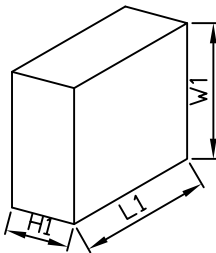


Packaging Information

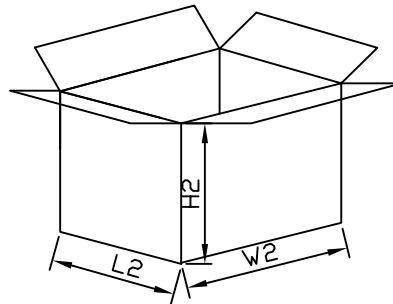
1.Reel Dimensions



2. Inside Box



3. Outside Box



Packaging Information

NO	UNIT	Reel Dimensions			Inside Box			Outside Box		
		ϕ	A	B	L1	W1	H1	L2	W2	H2
Size	mm	178	55	11	180	183	120	270	375	235
QTY	PCS	Smallest package,3000PCS/reel			30,000PCS,10reel in total			120,000PCS/carton,4boxes in total		
Note	Tolerance $\leq 20\text{mm}, \pm 3\text{mm};$ 21-100mm, $\pm 5\text{mm};$ 101-500mm, $\pm 10\text{mm}$									