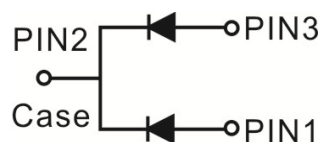
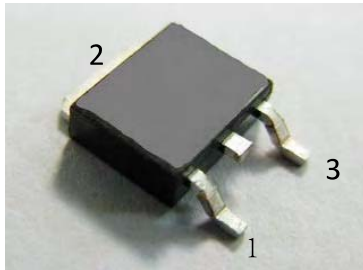


Trench MOS Barrier Schottky Rectifier

**TSP20A45D
TO-252**



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)

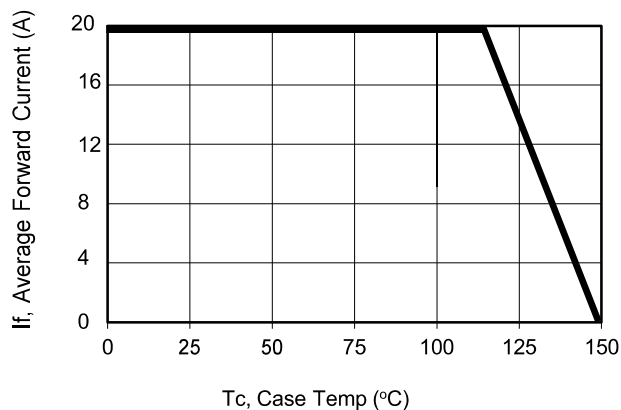
Parameter			Symbol	Limit		Unit
Maximum repetitive peak reverse voltage			VRRM	45		V
Maximum average forward rectified current	device		IF(AV)	20		A
	per diode			10		
Peak forward surge current 8.3 ms single half sine- wave superimposed on rated load per diode			IFSM	150		A
Operating junction and storage temperature range			TJ, TSTG	-50 to +150		°C
Typical thermal resistance per leg		TO-252	RθJC	6		°C/W
Instantaneous forward voltage per diode			VF(1)	TYP.	MAX.	V
	IF=2A	TJ=25°C		0.41	0.46	
	IF=2A	TJ=125°C		0.36	-	
	IF=10A	TJ=25°C		0.52	0.57	
	IF=10A	TJ=125°C		0.47	-	
Instantaneous reverse current per diode at rated reverse voltage		TJ=25°C	IR(2)	5	50	uA
		TJ=125°C		-	10	mA

Notes:

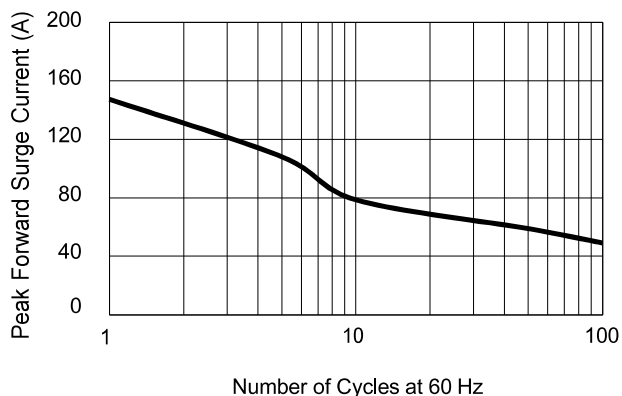
(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

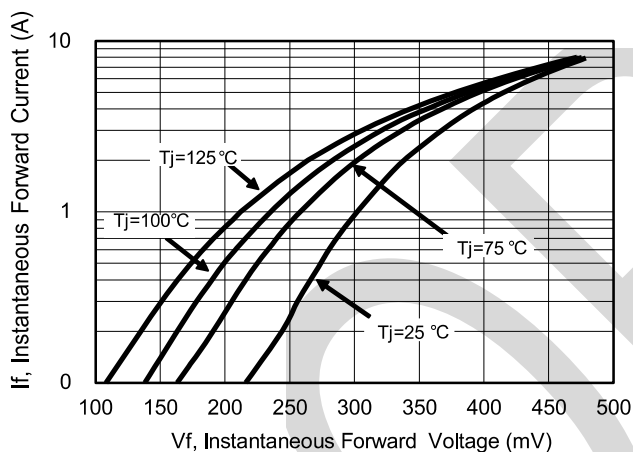
RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



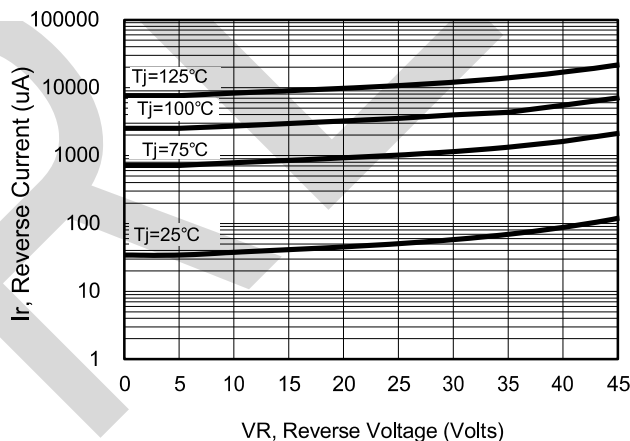
Current Derating, Case



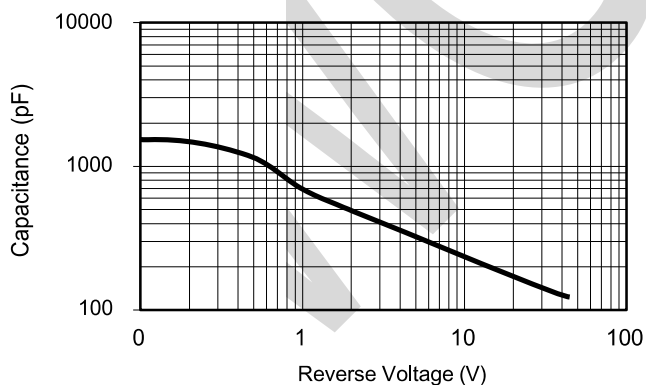
Maximum Repetitive Surge Current



Typical Forward Voltage



Typical Reverse Current

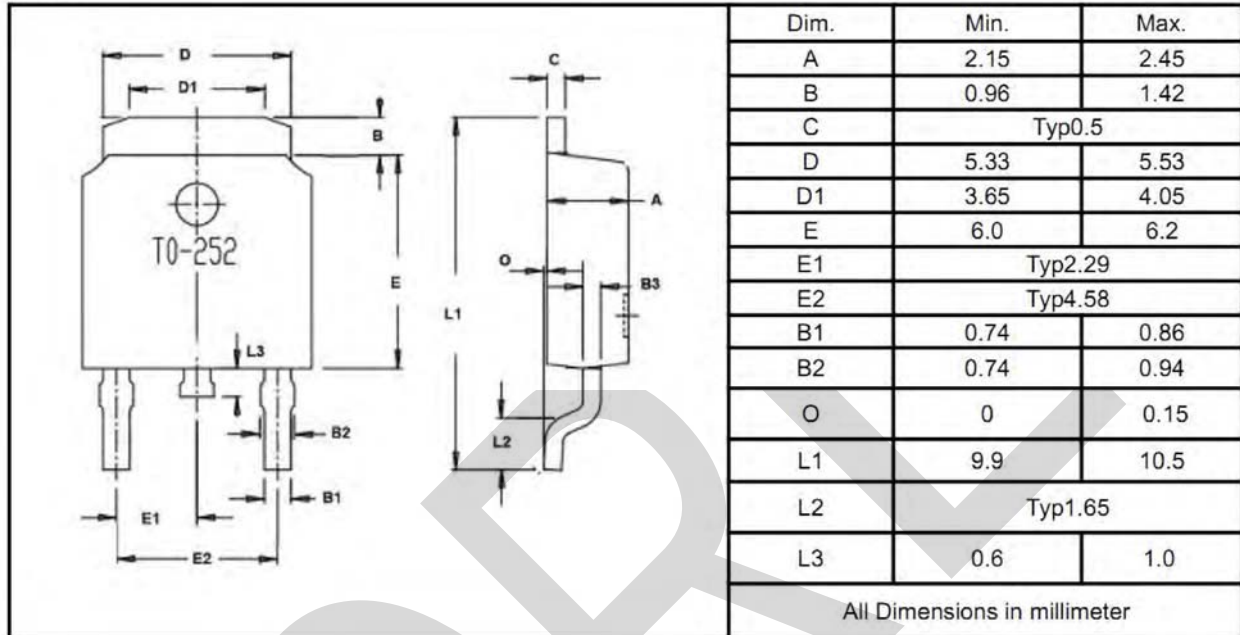


Typical Junction Capacitance

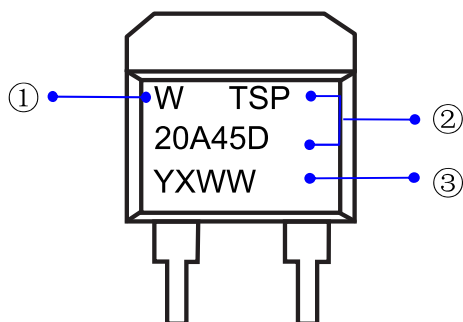
PACKAGE OUTLINE DIMENSIONS

Note:unit In(mm)

TO-252



Marking Information



①W : Company's trademark

②Product model : TSP20A45D

③PDC information :

Y X WW

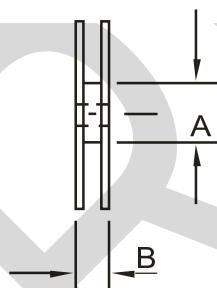
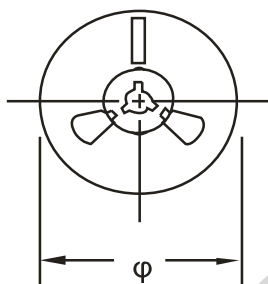
WW:Week code(01 to 53)

X:Internal identification code

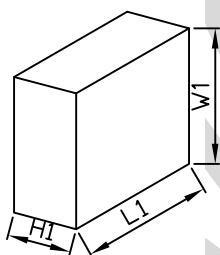
Y:Year code(ex:0=2020)

Packaging Information

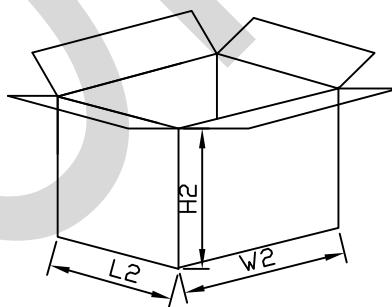
1.Reel Dimensions



2.Inside Box



3.Outside Box



Packaging Information

NO	UNIT	Reel Dimensions			Inside Box			Outside Box		
Size	mm	φ	A	B	L1	W1	H1	L2	W2	H2
		330	100	15	340	335	45	370	360	270
QTY	PCS	Smallest package,2500PCS/reel			5,000PCS,2 reel in total			25,000PCS/carton,5 boxes in total		
Note	Tolerance ≤20mm,±3mm; 21-100mm,±5mm; 101-500mm,±10mm									