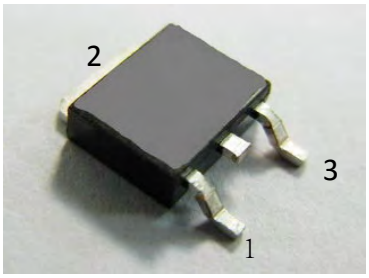
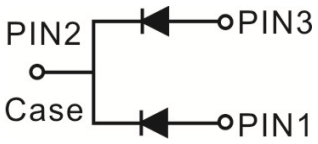
Trench MOS Barrier Schottky Rectifier

TSP20A150D
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 (TJ = 25°C unless otherwise noted)

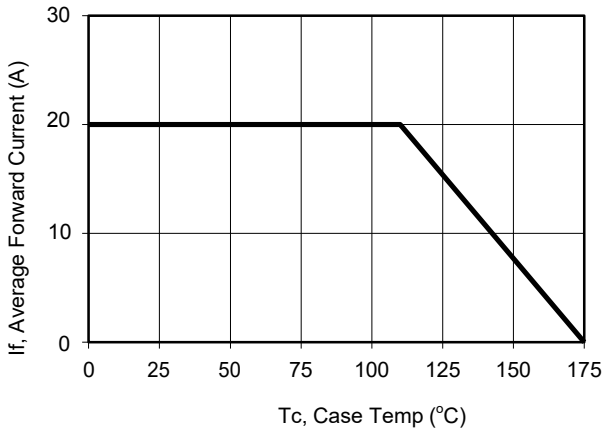
Parameter			Symbol	Limit		Unit
Maximum repetitive peak reverse voltage			V_{RRM}	150		V
Maximum average forward rectified current		per device	$I_{F(AV)}$	20		A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load per diode			I_{FSM}	200		A
Operating junction and storage temperature range			T_J, T_{STG}	-65 to +175		℃
Typical thermal resistance per leg	TO-220AB		$R_{\Theta JC}$	2		°C/W
	ITO-220AB			4		°C/W
Instantaneous forward voltage per diode			$V_{F(1)}$	TYP.	MAX.	
	I_F=2A	T_J=25°C		0.50	0.58	V
	I_F=2A	T_J=125°C		0.44	-	
	I_F=10A	T_J=25°C		0.81	0.88	
	I_F=10A	T_J=125°C		0.76	-	
Instantaneous reverse current per diode at rated reverse voltage		T_J=25°C	$I_{R(2)}$	-	50	uA
		T_J=125°C		-	10	mA

Notes:

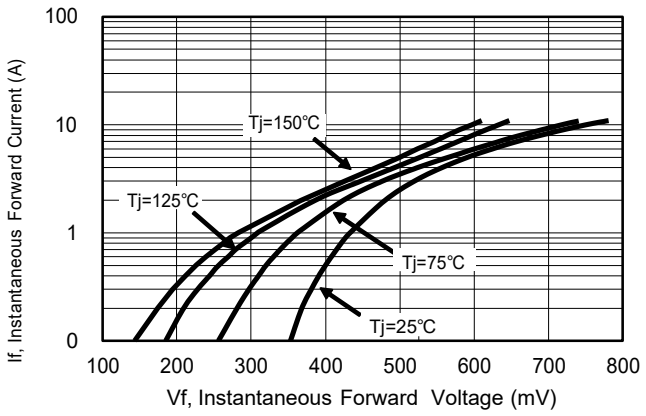
(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≦ 40 ms

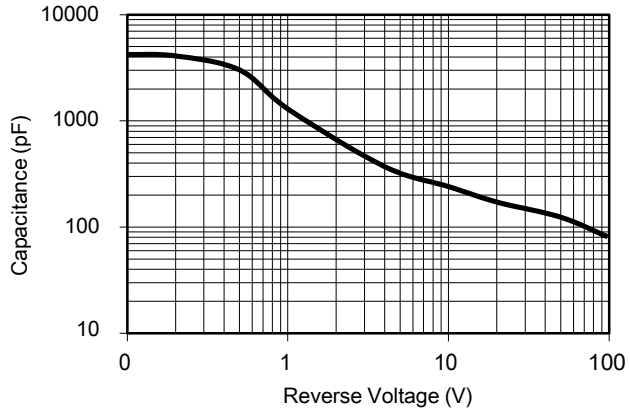
RATINGS AND CHARACTERISTICS CURVES (TA = 25 ˚C unless otherwise noted)



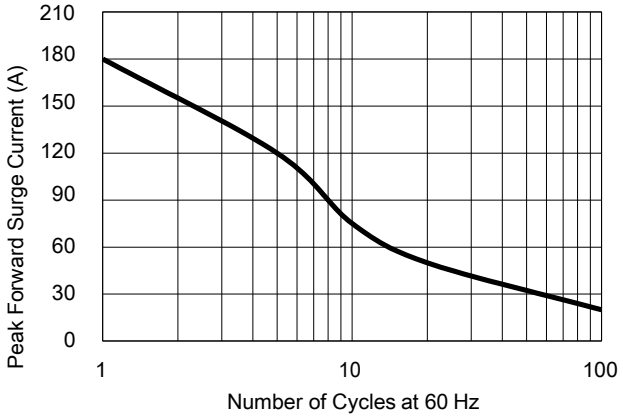
Current Derating, Case



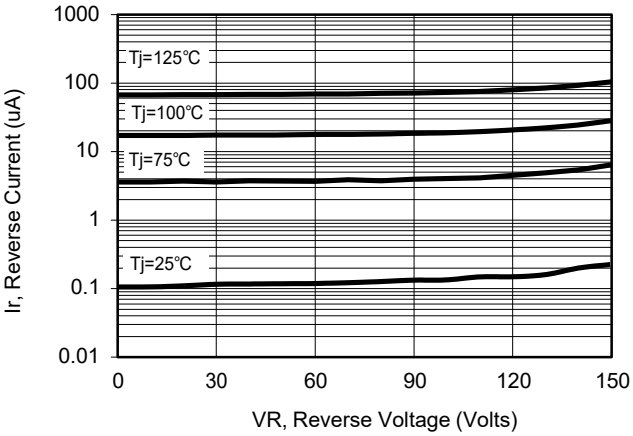
Typical Forward Voltage



Typical Junction Capacitance



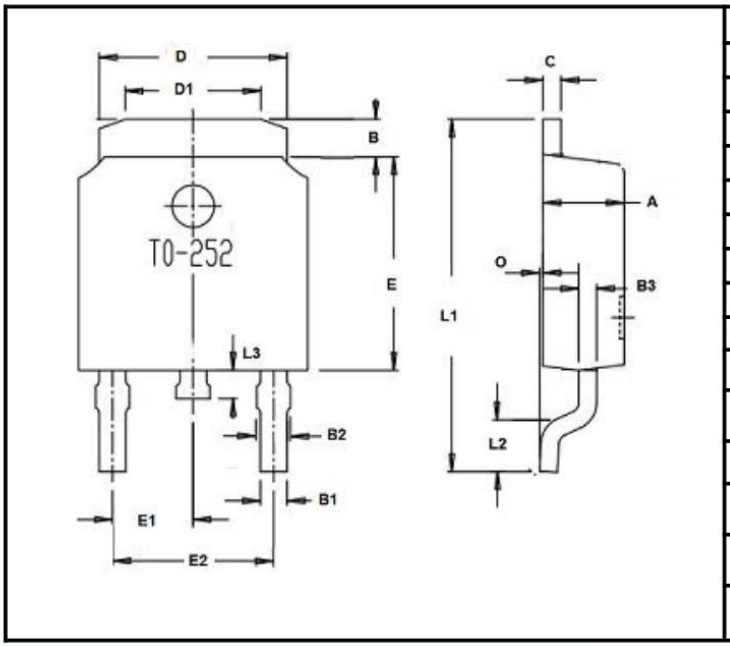
Maximum Repetitive Surge Current



Typical Reverse Current

PACKAGE OUTLINE DIMENSIONS

TO-252



Dim.	Min.	Max.
A	2.15	2.45
B	0.96	1.42
C	Typ0.5	
D	5.33	5.53
D1	3.65	4.05
E	6.0	6.2
E1	Typ2.29	
E2	Typ4.58	
B1	0.74	0.86
B2	0.74	0.94
O	0	0.15
L1	9.9	10.5
L2	Typ1.65	
L3	0.6	1.0
All Dimensions in millimeter		