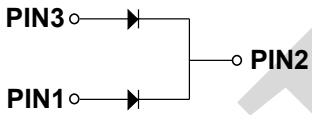
TSR30P150CK

12-Apr-2025

Trench MOS Barrier Schottky Rectifier

TO-262
TSR30P150CK



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			VRRM	150		V
Maximum average forward rectified current		device	IF(AV)	30		A
		per diode		15		
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load per diode			IFSM	200		A
Operating junction and storage temperature range			T_J, T_{STG}	-55 to +175		°C
Typical thermal resistance per leg			$R_{\Theta JC}$	2.5		°C/W
Instantaneous forward voltage per diode			VF(1)	TYP.	MAX.	
	IF=2A	TJ=25°C		0.66	-	V
	IF=2A	TJ=125°C		0.58	-	
	IF=15A	TJ=25°C		0.83	0.88	
	IF=15A	TJ=125°C		0.81	-	
Instantaneous reverse current per diode at rated reverse voltage		TJ=25°C	IR(2)	1	10	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)

Fig.1 Current Derating, Case

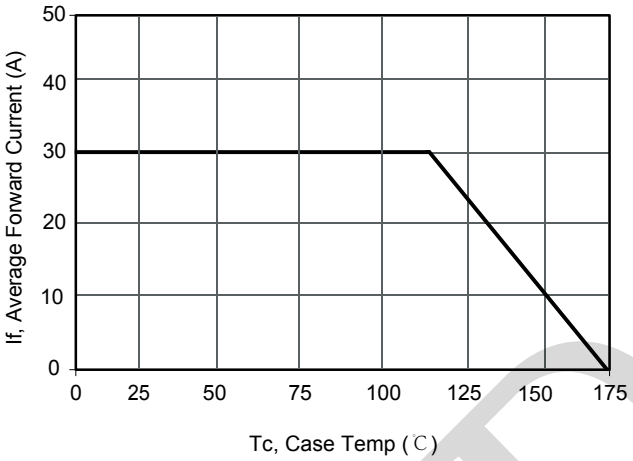


Fig.2 Maximum Non-Repetitive Peak Forward Surage Current

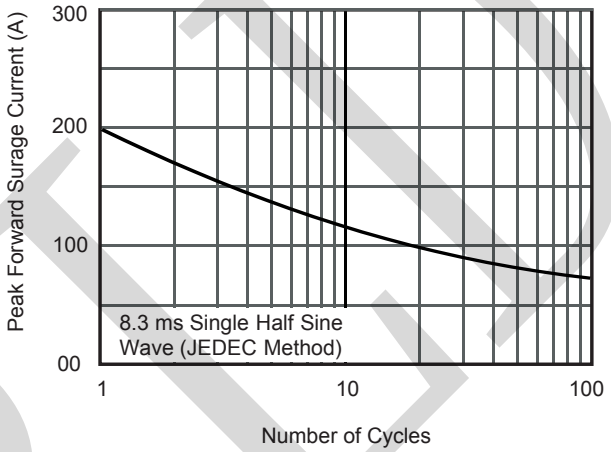


Fig.3 Typical Forward Voltage

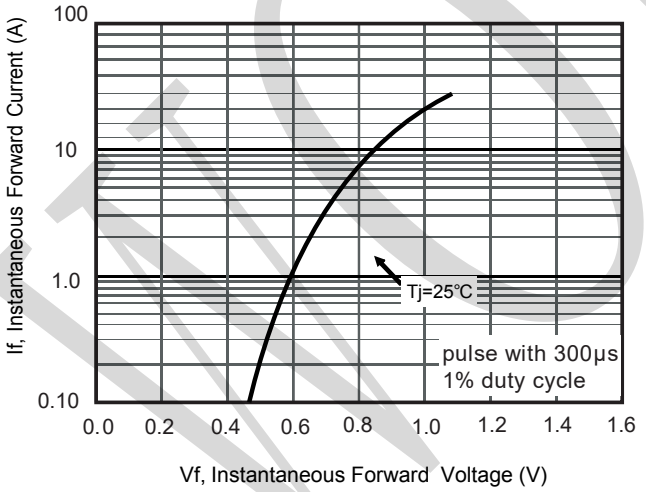
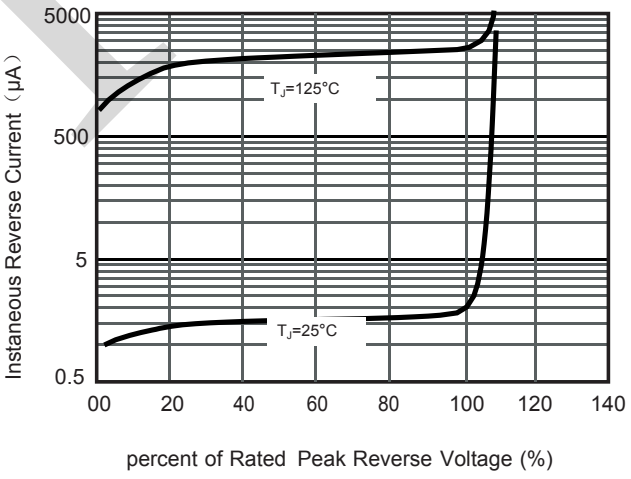


Fig.4 Typical Reverse Characteristics



PACKAGE OUTLINE DIMENSIONS

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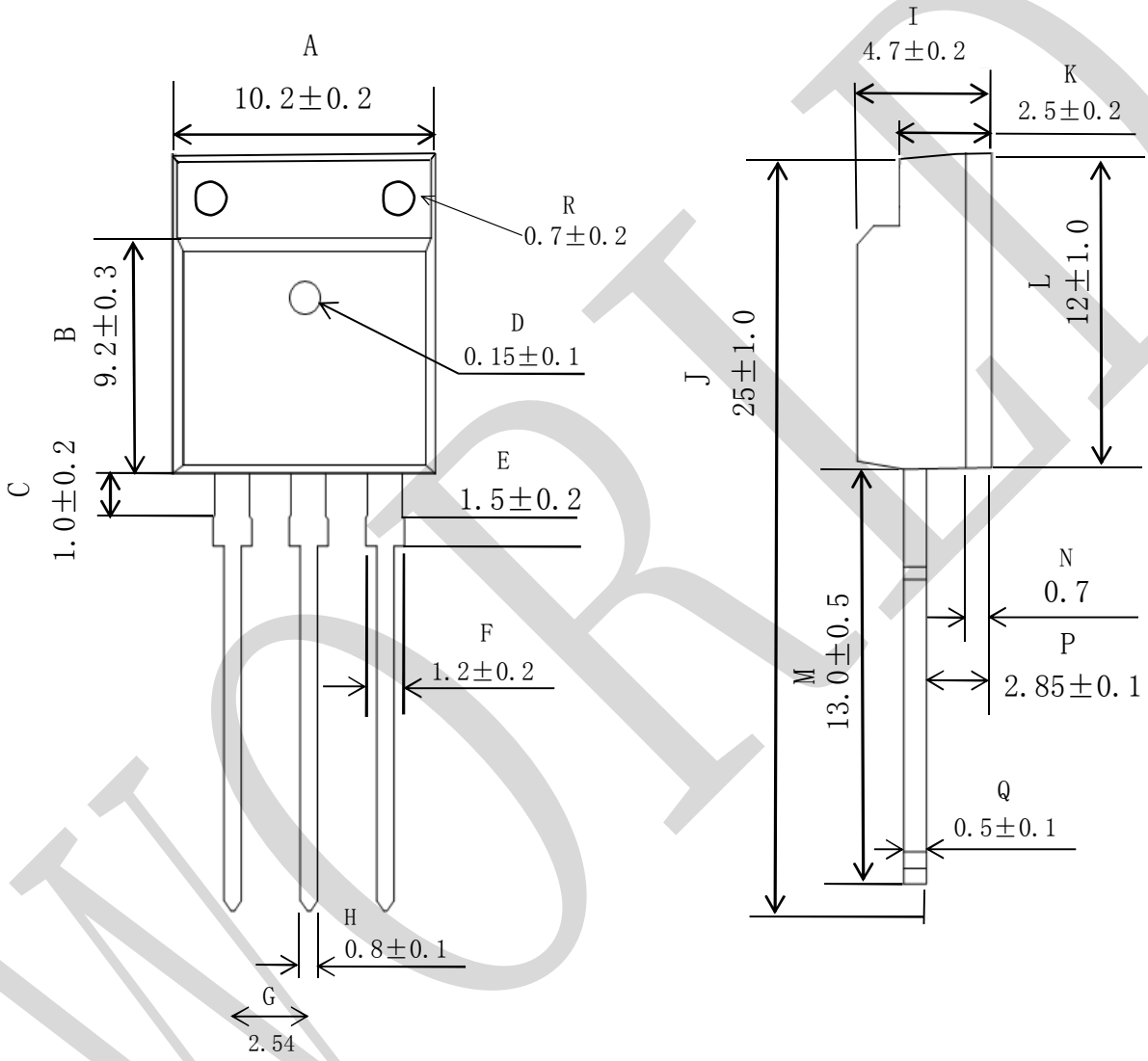
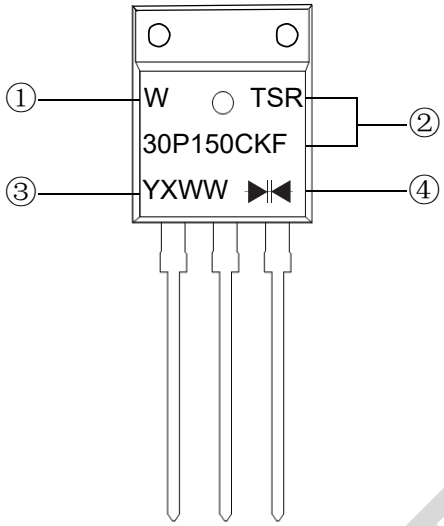


Note:unit In(mm)
General tolerance: ±0.2 mm unless otherwise specified.

Marking Information



①W : Company's trademark
②Product model : TSR30P150CK
③PDC information：

Y X WW

WW:Week code(01 to 53)
X:Internal identification code
Y:Year code(ex:0=2020)

④ Double wafer