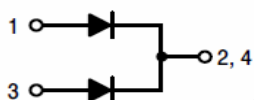
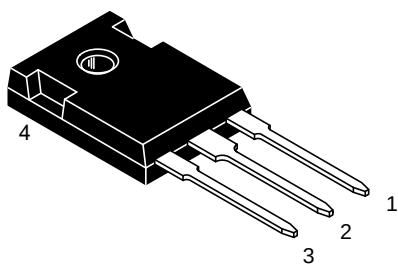


Trench MOS Barrier Schottky Rectifier

TO-247S
TSR40L100PTS



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	100		V
Maximum average forward rectified current	device		IF(AV)	40		A
	per diode			20		
Peak forward surge current 8.3 ms single half sine- wave superimposed on rated load per diode			IFSM	280		A
Operating junction and storage temperature range			TJ, TSTG	-50 to +150		°C
Typical thermal resistance per leg		TO-247S	RθJC	2		°C/W
Instantaneous forward voltage per diode			VF(1)	TYP.	MAX.	V
	IF=3A	TJ=25°C		0.44	0.47	
	IF=3A	TJ=125°C		0.39	-	
	IF=20A	TJ=25°C		0.70	0.76	
	IF=20A	TJ=125°C		0.64	-	
Instantaneous reverse current per diode at rated reverse voltage		TJ=25°C	IR(2)	5	100	uA
		TJ=125°C		5	-	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)

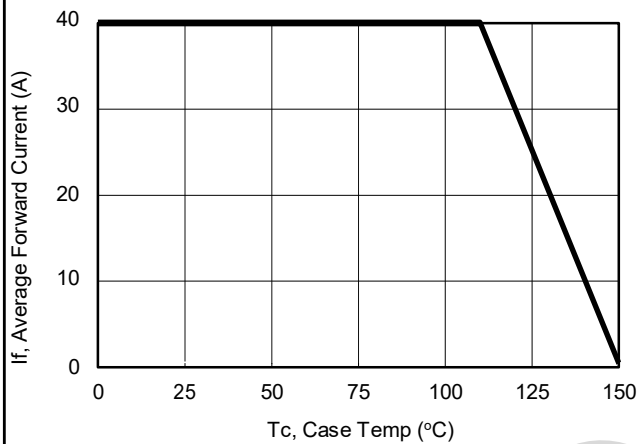


Figure 1: Current Derating, Case

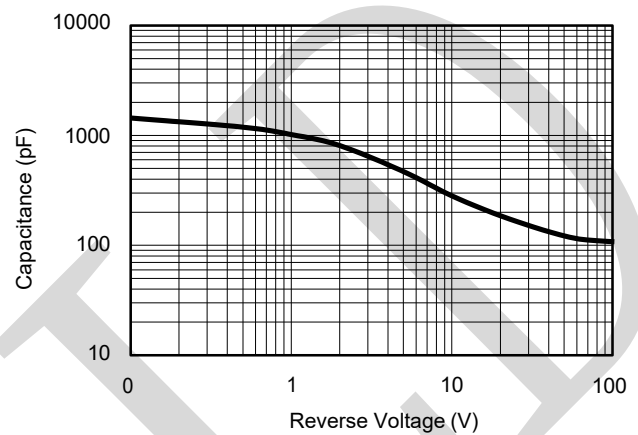


Figure 2: Typical Junction Capacitance

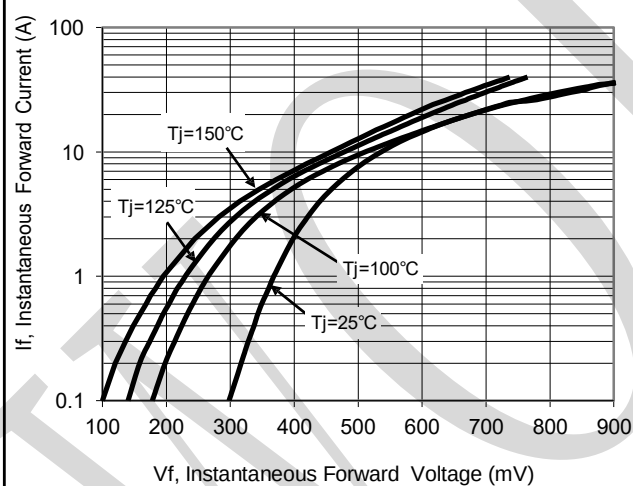


Figure 3: Typical Forward Voltage

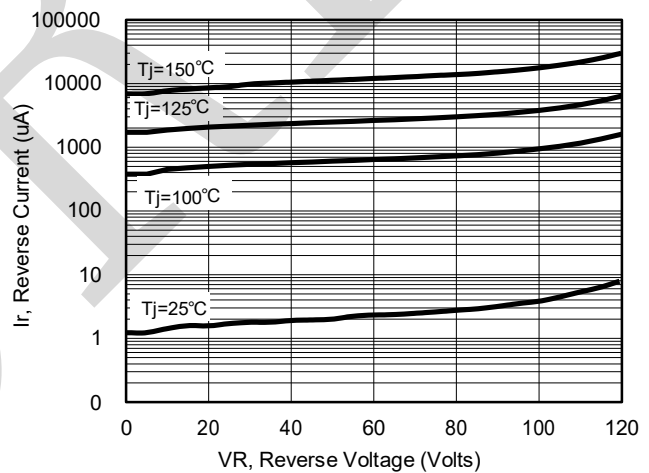
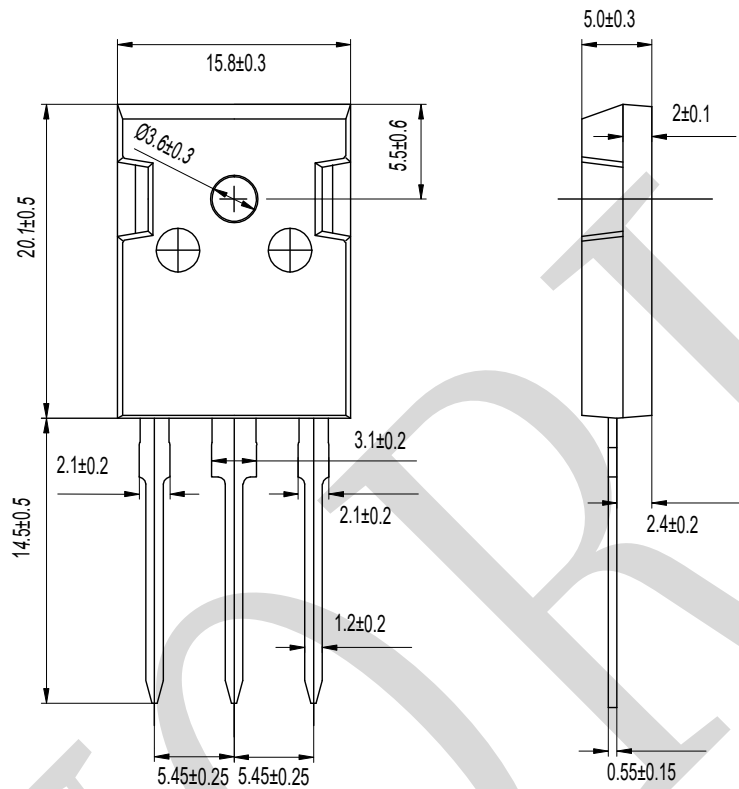


Figure 4: Typical Reverse Current

PACKAGE OUTLINE DIMENSIONS

Note:unit: mm

TO-247S



Dimensions in millimeters