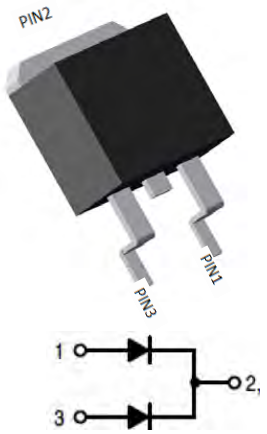
TSR20L200CTB

23-NOV-2019

Trench MOS Barrier Schottky Rectifier

TSR20L200CTB

TO-263



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)

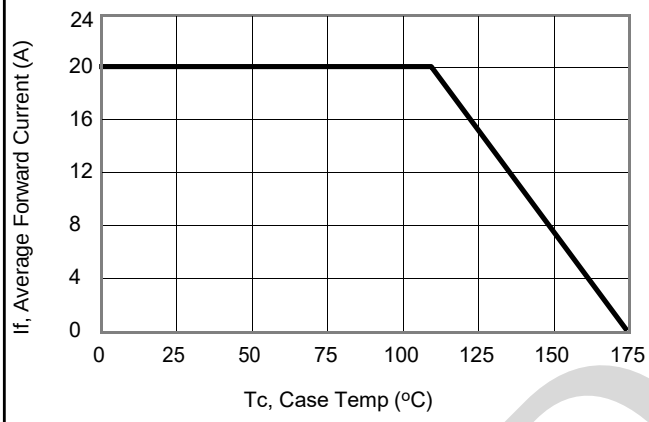
Parameter			Symbol	Limit		Unit
Maximum repetitive peak reverse voltage			VRRM	200		V
Maximum average forward rectified current		device	IF(AV)	20		A
		per diode		10		
Peak forward surge current 8.3 ms single half sine- wave superimposed on rated load per diode			IFSM	220		A
Operating junction and storage temperature range			TJ, TSTG	-65 to +175		°C
Typical thermal resistance per leg		TO-220AB	RΘJC	2		°C/W
		ITO-220AB		4		°C/W
Instantaneous forward voltage per diode			VF(1)	TYP.	MAX.	
	IF=3A	TJ=25°C		0.72	0.78	V
	IF=3A	TJ=125°C		0.63	-	
	IF=10A	TJ=25°C		0.81	0.88	
	IF=10A	TJ=125°C		0.73	-	
Instantaneous reverse current per diode at rated reverse voltage		TJ=25°C	IR(2)	1	100	uA
		TJ=125°C		-	10	mA

Notes:

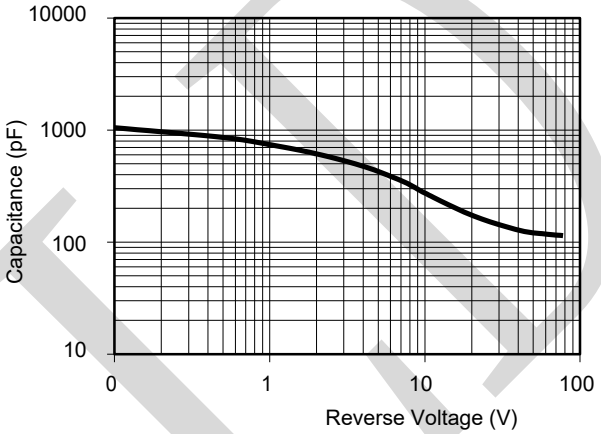
(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≦ 40 ms

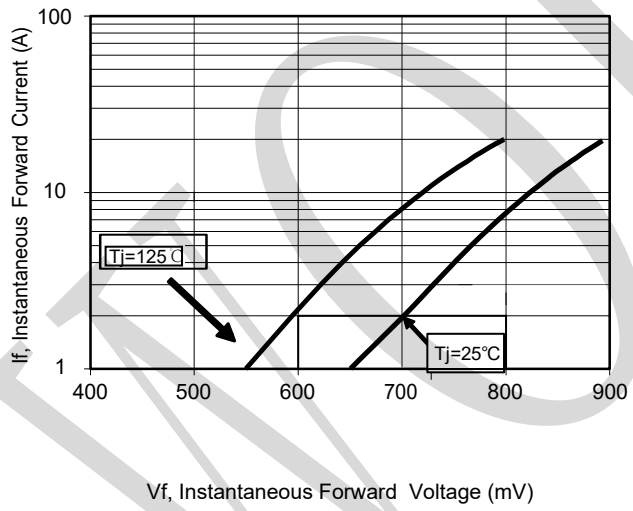
RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



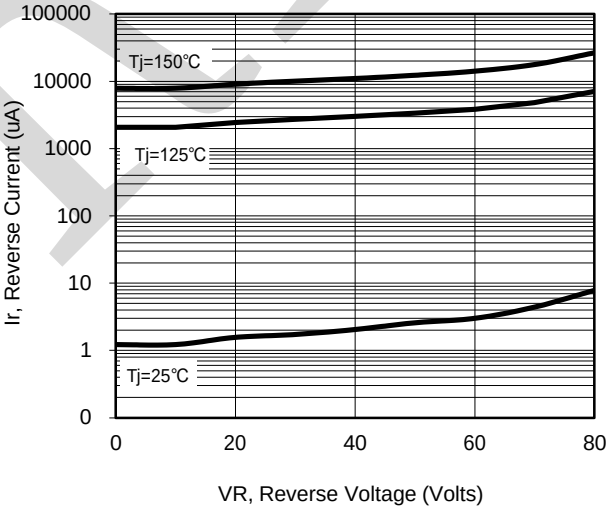
Current Derating, Case



Typical Junction Capacitance



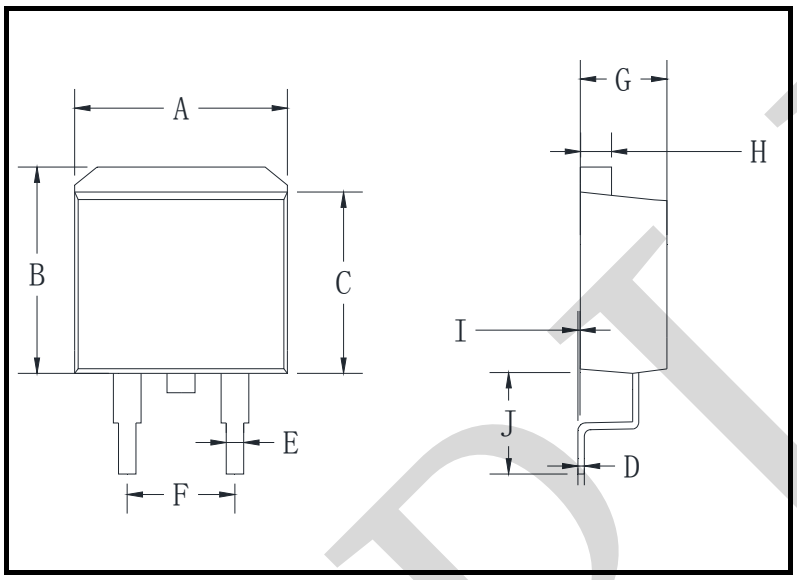
Typical Forward Voltage



Typical Reverse Current

PACKAGE OUTLINE DIMENSIONS

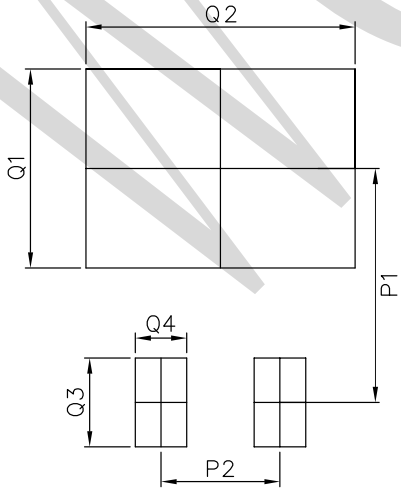
TO-263



TO-263 mechanical data

UNIT		A	B	C	D	E	F	G	H	I	J
mm	max	11.5	10.5	9.0	0.64	0.94	5.6	5.1	1.4	0.6	6.1
	min	9.5	9.7	8.4	0.28	0.68	4.5	4.0	1.1	0	4.9
mil	max	452.7	413.3	354.3	25.2	37.0	220.5	200.8	55.1	23.6	240.1
	min	374.0	381.8	330.7	11.0	26.7	177.2	157.5	43.3	0	192.9

TO-263 Suggested Pad Layout



UNIT		P1	P2	Q1	Q2	Q3	Q4
mm	min	10.0	4.00	8.5	11.5	3.8	2.1
mil	min	393.3	157.5	39.37	334.6	149.6	82.7