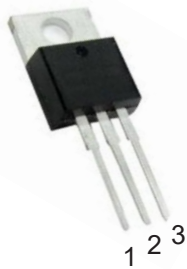
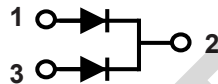
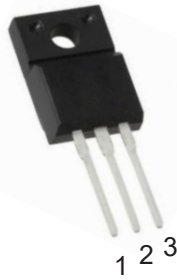


Trench MOS Barrier Schottky Rectifier

TSR40A120CT
TO-220AB



TSR40A120CTF
TO-220F



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	120		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	-55 to +150		°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.	V
	IF=3A	TJ=25°C		0.47	0.53	
	IF=3A	TJ=125°C		0.42	-	
	IF=20A	TJ=25°C		0.90	0.97	
	IF=20A	TJ=125°C		0.83	-	
Instantaneous reverse current per diode at rated reverse voltage		TJ=25°C	IR(2)	10	60	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)

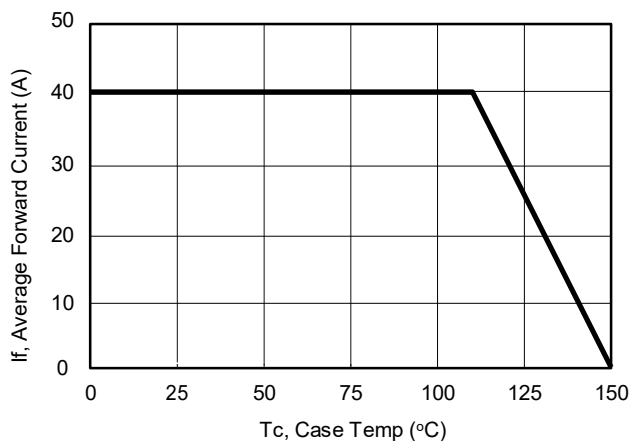


Figure 1: Current Derating, Case

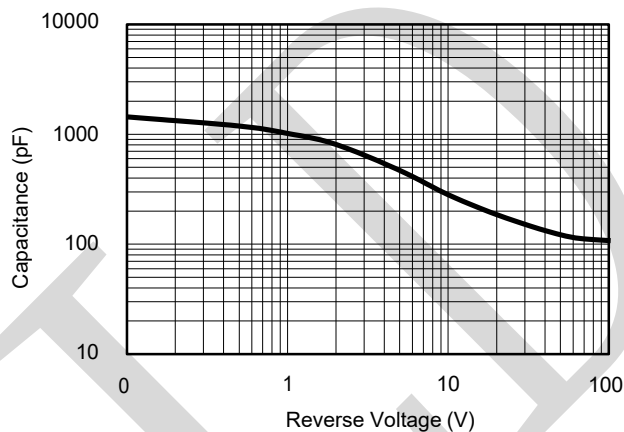


Figure 2: Typical Junction Capacitance

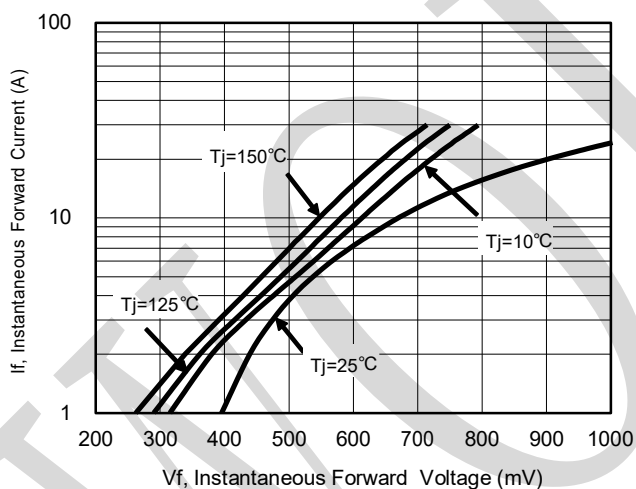


Figure 3: Typical Forward Voltage

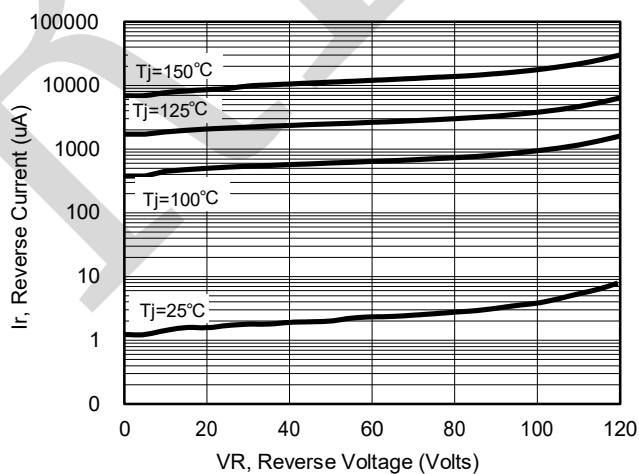
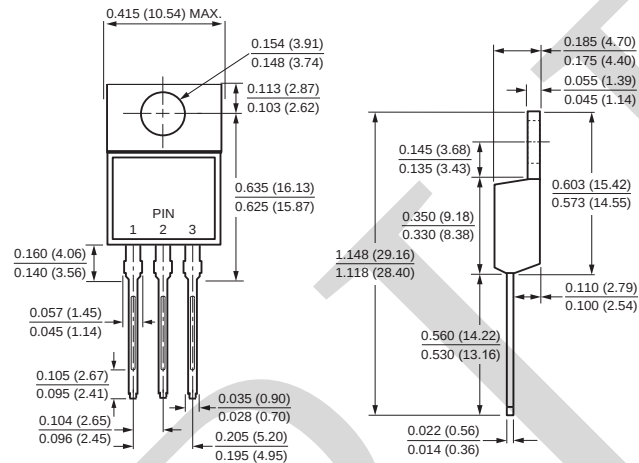


Figure 4: Typical Reverse Current

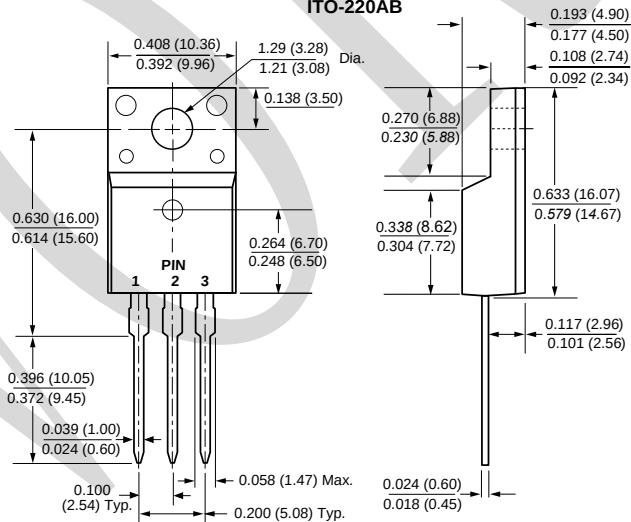
PACKAGE OUTLINE DIMENSIONS

Note:unit In(mm)

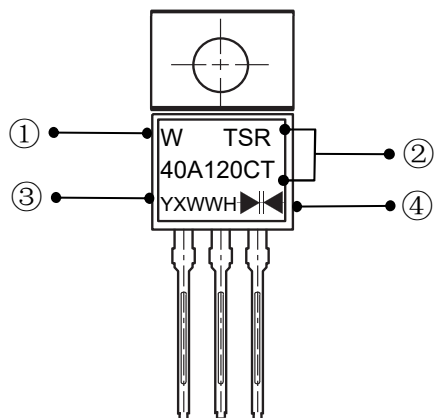
TO-220AB



ITO-220AB

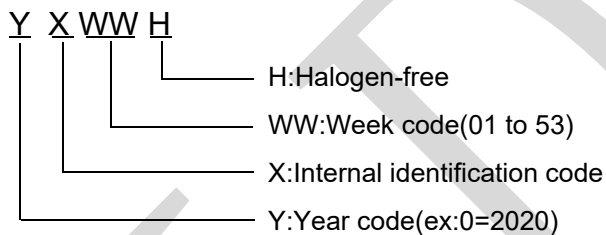


Marking Information



- ①W : Company's trademark
②Product model : TSR40A120CT or TSR40A120CTF

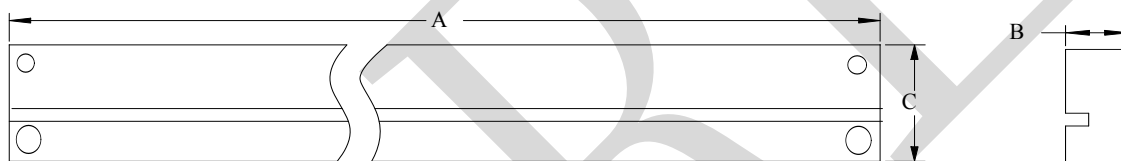
③PDC information:



- ④  Double wafer

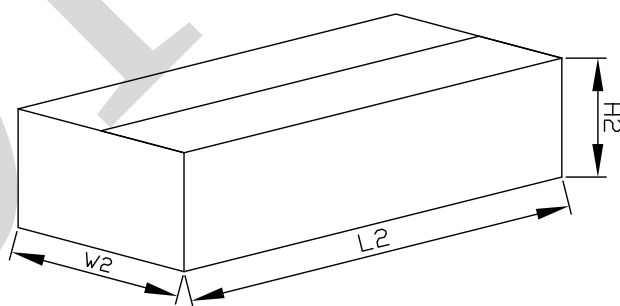
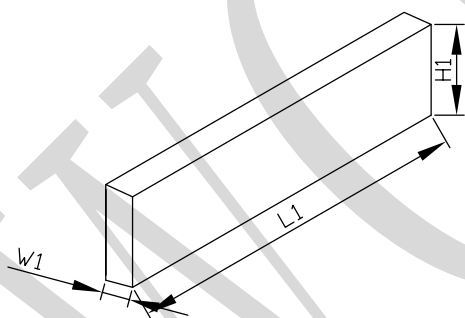
Packaging Information

1. Tube Dimensions



2. Inside Box

3. Outside Box



Packaging Information

NO	UNIT	Tube Dimensions			Inside Box			Outside Box		
Size	mm	A	B	C	L1	W1	H1	L2	W2	H2
		530	7	33	570	46	150	590	260	180
QTY	PCS	50PCS/Tube			Smallest package,1000PCS, 20 tube in total			5,000PCS/carton,5 boxes in total		
Note	Tolerance ≤20mm,±3mm; 21-100mm,±5mm; 101-500mm,±10mm									