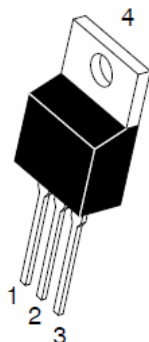
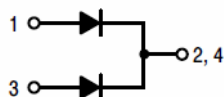
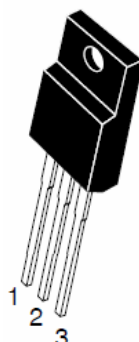


## Trench MOS Barrier Schottky Rectifier

**TO-220AB**  
**TSR40L100CT**



**ITO-220AB**  
**TSR40L100CTF**



### 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<sub>J</sub> = 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-220AB  |          | RθJC     | 2           |      | °C/W |
|                                                                                               | ITO-220AB |          |          | 4           |      | °C/W |
| Instantaneous forward voltage per diode                                                       |           |          | VF(1)    | TYP.        | MAX. | V    |
|                                                                                               | IF=5A     | TJ=25°C  |          | 0.45        | 0.52 |      |
|                                                                                               | IF=5A     | TJ=125°C |          | 0.38        | -    |      |
|                                                                                               | IF=20A    | TJ=25°C  |          | 0.67        | 0.73 |      |
|                                                                                               | IF=20A    | TJ=125°C |          | 0.61        | -    |      |
| Instantaneous reverse current per diode at rated reverse voltage                              |           | TJ=25°C  | IR(2)    | 20          | 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)

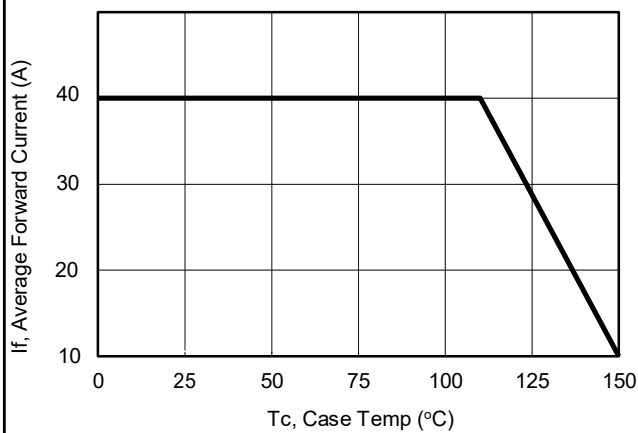


Figure 1: Current Derating, Case

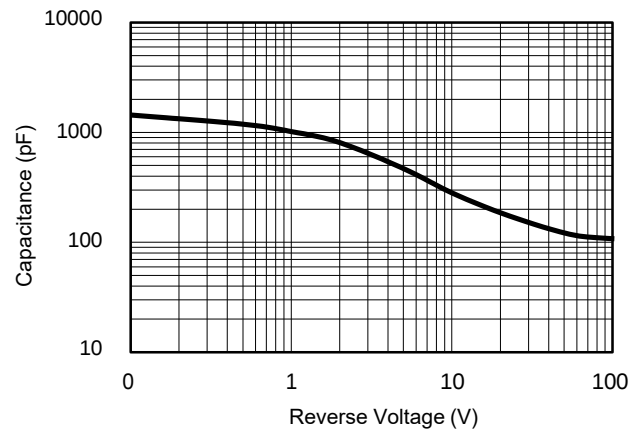
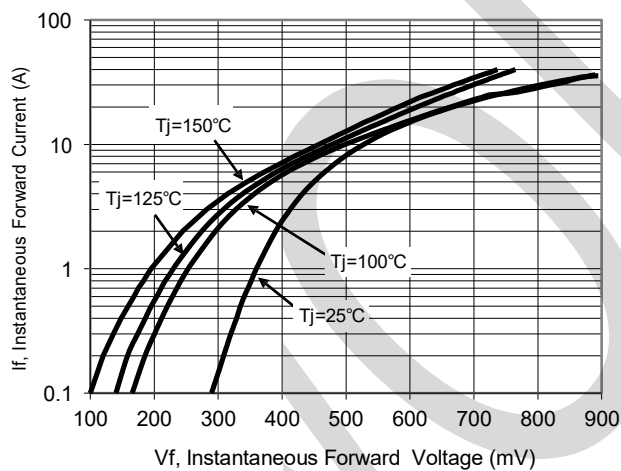
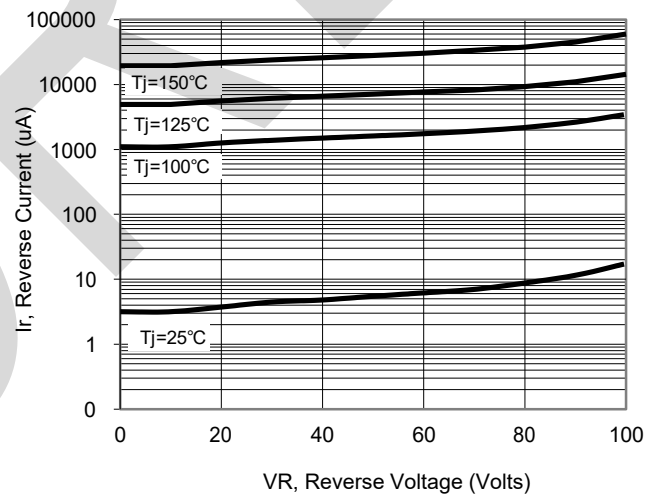


Figure 2: Typical Junction Capacitance



Typical Forward Voltage

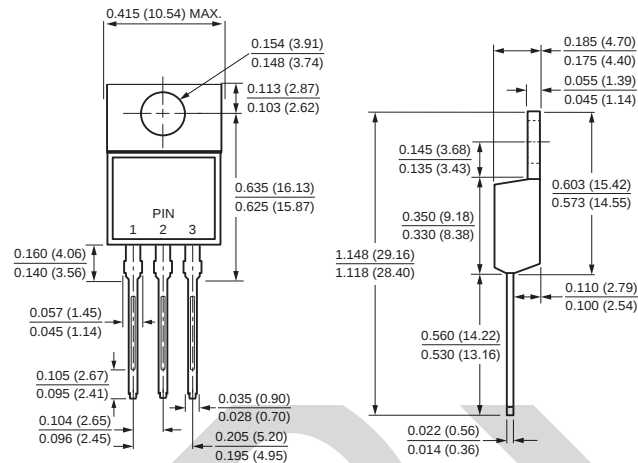


Typical Reverse Current

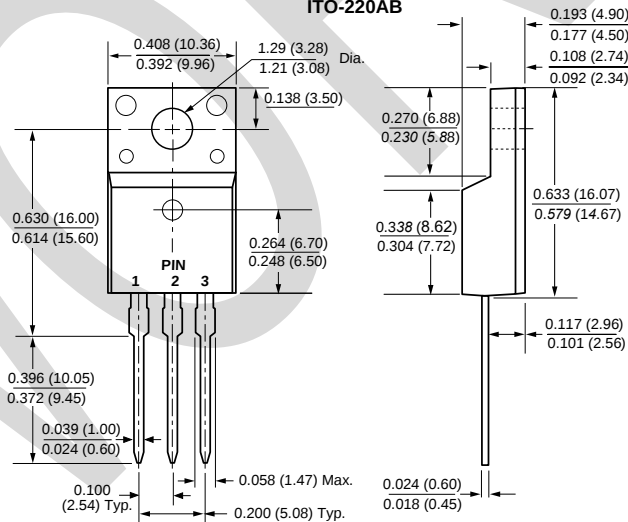
## PACKAGE OUTLINE DIMENSIONS

Note:unit In(mm)

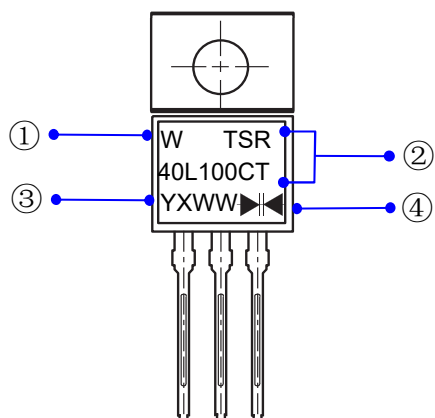
TO-220AB



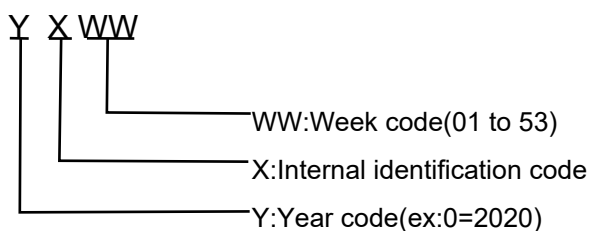
ITO-220AB



## Marking Information



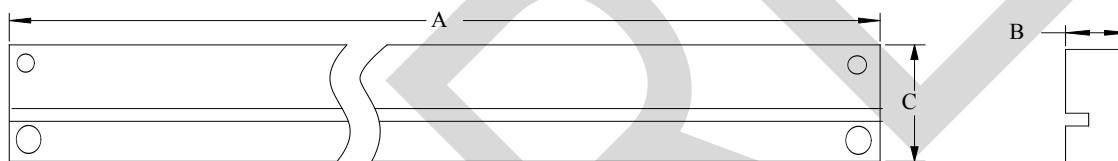
- ①W : Company's trademark
- ②Product model : TSR40L100CT or TSR40L100CTF
- ③PDC information :



- ④  Double wafer

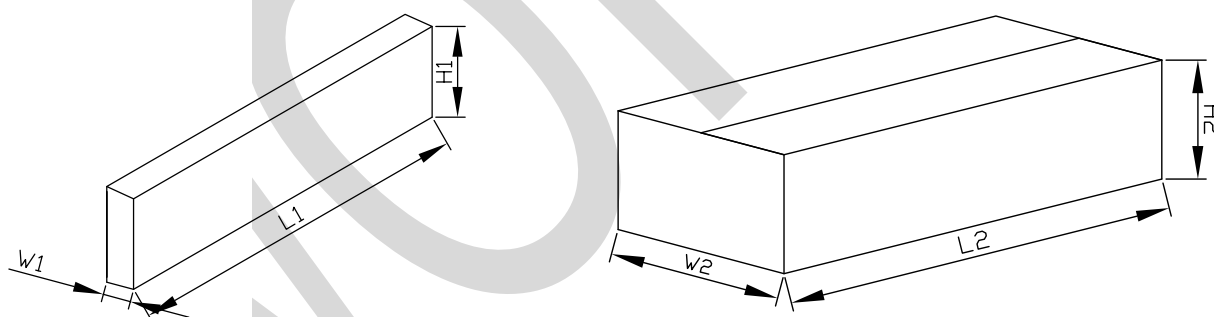
## Packaging Information

### 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,<br>20 tube in total |    |     | 5,000PCS/carton,5 boxes in total |     |     |
| Note | Tolerance    ≤20mm,±3mm;    21-100mm,±5mm;    101-500mm,±10mm |                 |   |    |                                               |    |     |                                  |     |     |