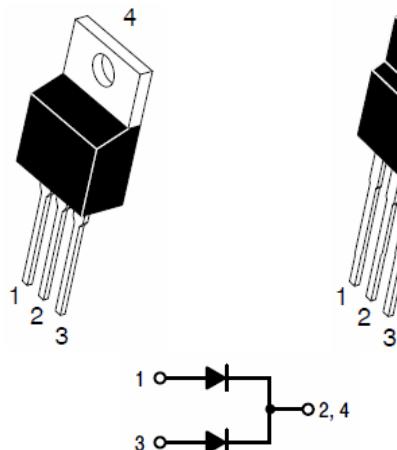
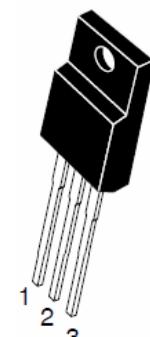


## Trench MOS Barrier Schottky Rectifier

**TO-220AB**  
**TSR20V200CT**



**ITO-220AB**  
**TSR20V200CTF**



### 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        | -50 to +175      |      | °C     |
| Typical thermal resistance per leg   | TO-220AB        | R <sub>θJC</sub> | 2    | °C/W   |
|  | ITO-220AB       |                  | 4    | °C/W   |
| Instantaneous forward voltage per diode  |                 | VF(1)            | TYP. | MAX.   |
|  | IF=3A TJ=25°C   |                  | 0.72 | -      |
|  | IF=3A TJ=125°C  |                  | 0.63 | -      |
|  | IF=10A TJ=25°C  |                  | 0.76 | 0.83   |
|  | IF=10A TJ=125°C |                  | 0.68 | -      |
| 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 ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

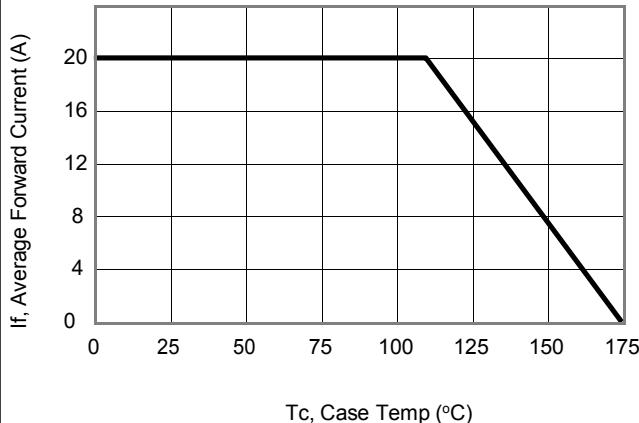


Figure 1: Current Derating, Case

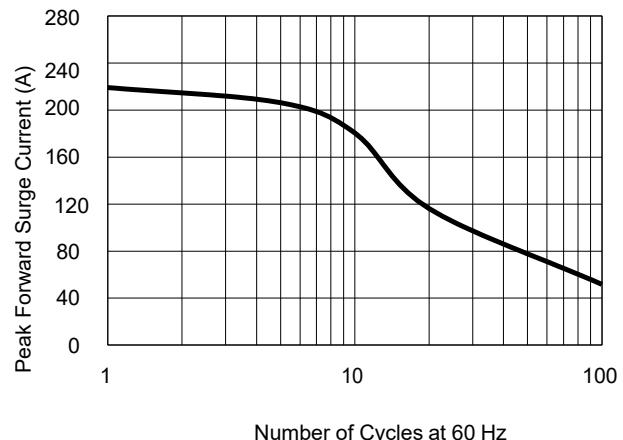


Figure 2: Maximum Repetitive Surge Current

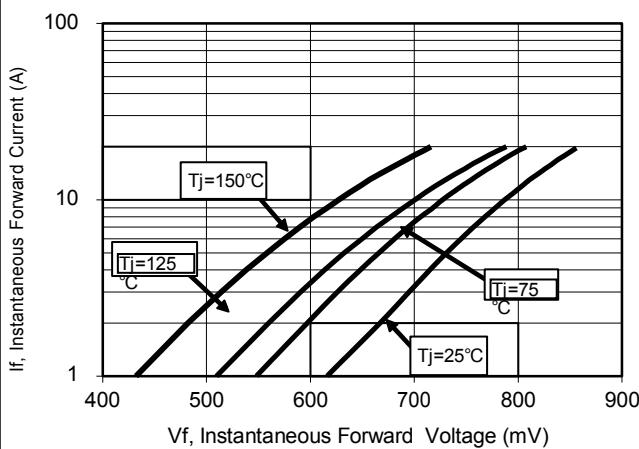


Figure 3: Typical Forward Voltage

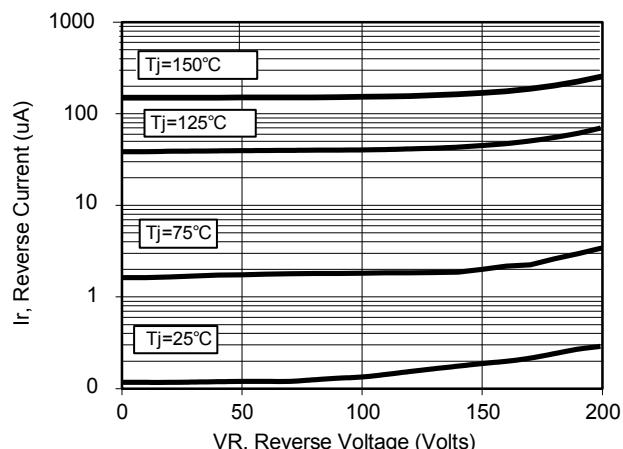


Figure 4: Typical Reverse Current



# TSR20V200CT

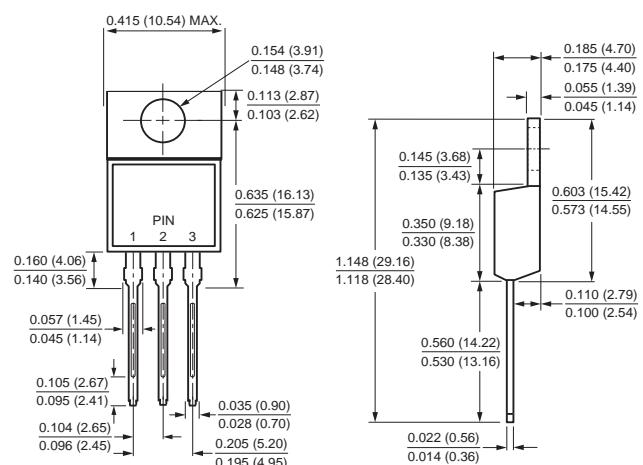
# TSR20V200CTF

23-NOV-2015

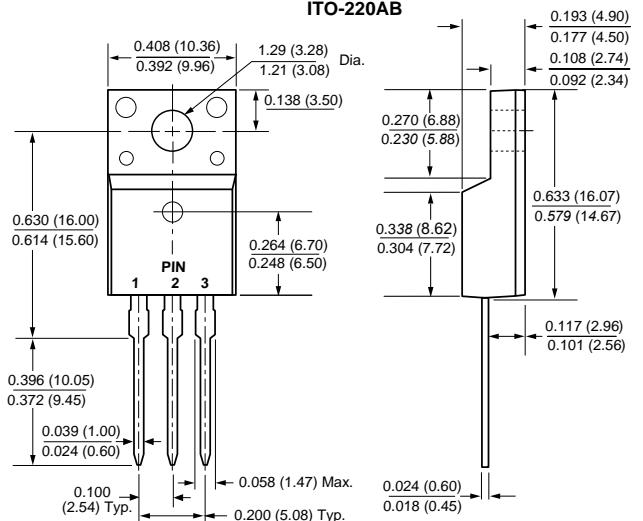
## PACKAGE OUTLINE DIMENSIONS

Note: unit In(mm)

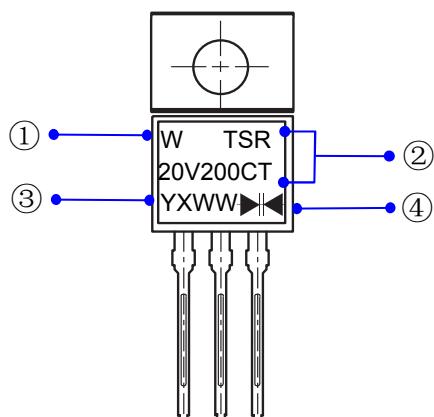
TO-220AB



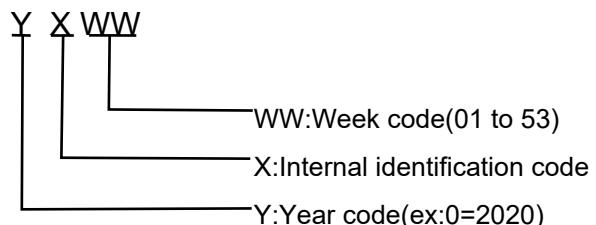
ITO-220AB



## Marking Information



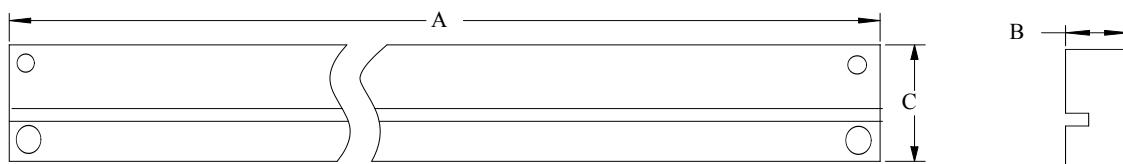
- ① W : Company's trademark
- ② Product model : TSR20V200CT or TSR20V200CTF
- ③ PDC information :



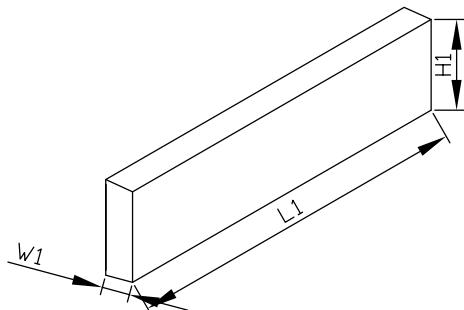
④ ►► Double wafer

## Packaging Information

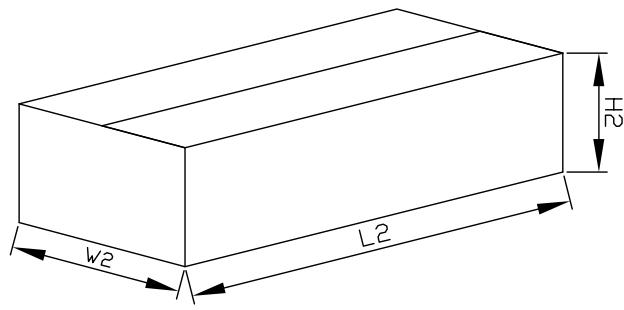
### 1.Tube Dimensions



### 2.Inside Box



### 3.Outside Box



## Packaging Information

| NO   | UNIT                       | Tube Dimensions |   |                | Inside Box                                    |    |                 | Outside Box                      |     |     |
|------|----------------------------|-----------------|---|----------------|---|----|-----------------|----------------------------------|-----|-----|
|      |                            | A               | B | C              | L1  | W1 | H1              | L2                               | W2  | H2  |
| Size | mm                         | 530             | 7 | 33             | 570   | 46 | 150             | 590                              | 260 | 180 |
|      |                            | 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 |                                  |     |     |