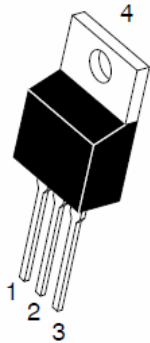
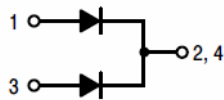
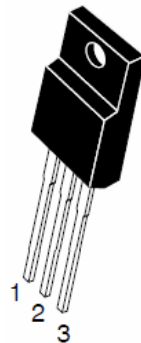


Trench MOS Barrier Schottky Rectifier

TO-220AB
TSR40L120CT



ITO-220AB
TSR40L120CTF



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 | | T _J , T _{STG} | -50 to +150 | | °C |
| Typical thermal resistance per leg | TO-220AB | R _{θJC} | 2 | | °C/W |
| | ITO-220AB | | 4 | | °C/W |
| Instantaneous forward voltage per diode | | | TYP. | MAX. | V |
| | IF=5A | T _J =25°C | 0.55 | 0.63 | |
| | IF=5A | T _J =125°C | 0.48 | - | |
| | IF=20A | T _J =25°C | 0.76 | 0.85 | |
| Instantaneous reverse current per diode at rated reverse voltage | | | 10 | 90 | μA |
| | | | 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)

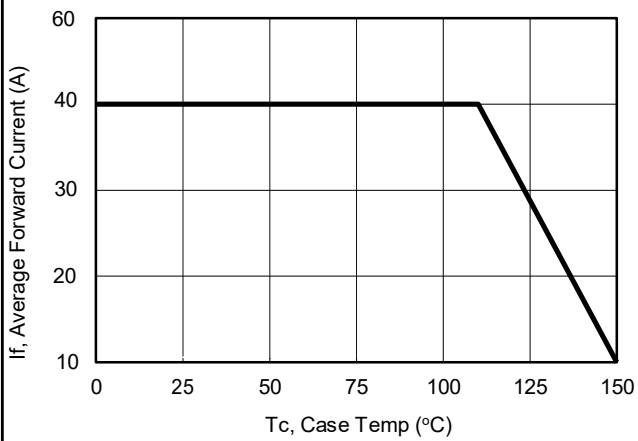


Figure 1: Current Derating, Case

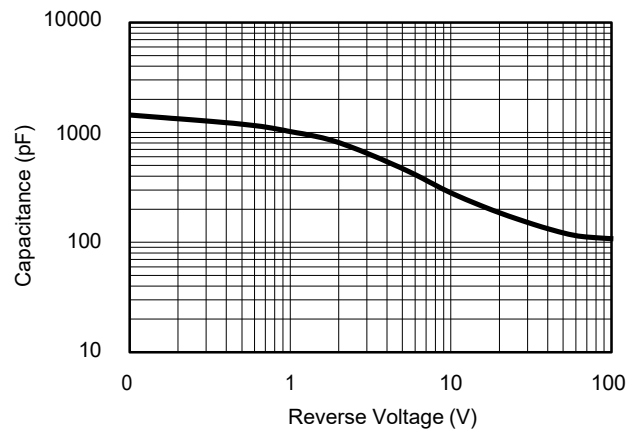
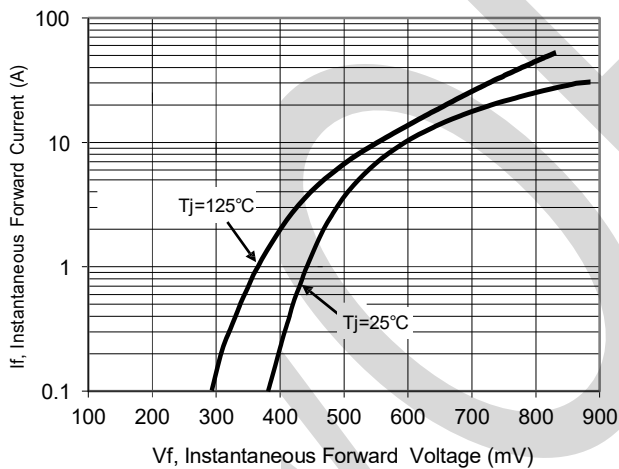
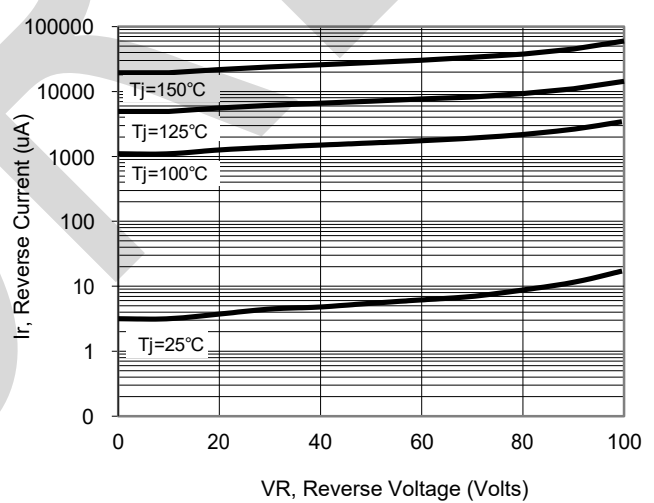


Figure 2: Typical Junction Capacitance



Typical Forward Voltage

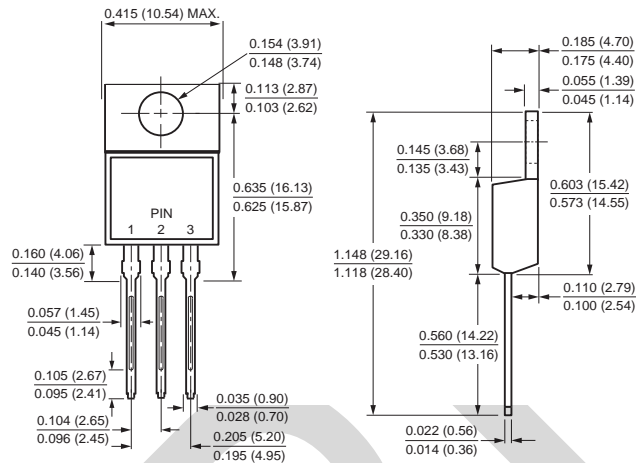


Typical Reverse Current

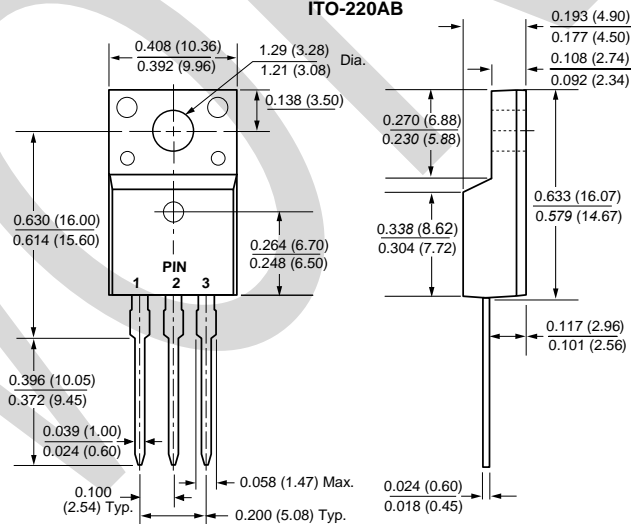
PACKAGE OUTLINE DIMENSIONS

Note:unit In(mm)

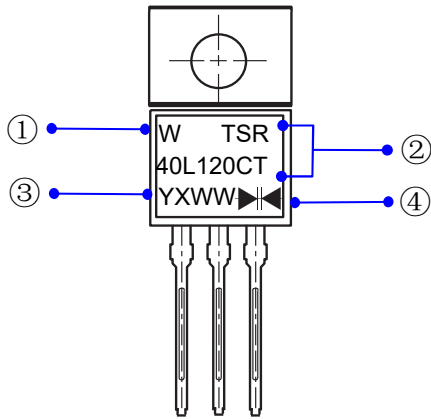
TO-220AB



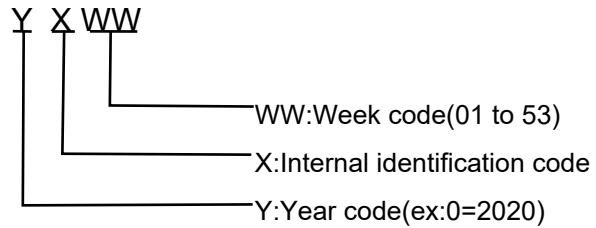
ITO-220AB




Marking Information



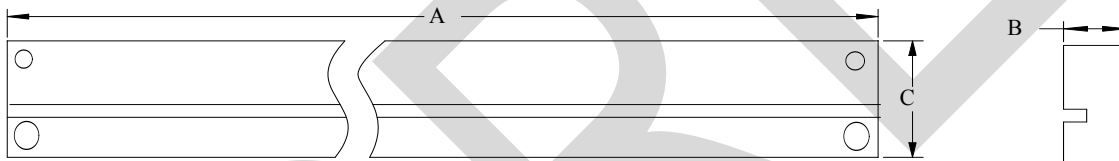
- ① W : Company's trademark
- ② Product model : TSR40L120CT or TSR40L120CTF
- ③ PDC information :



- ④  Double wafer

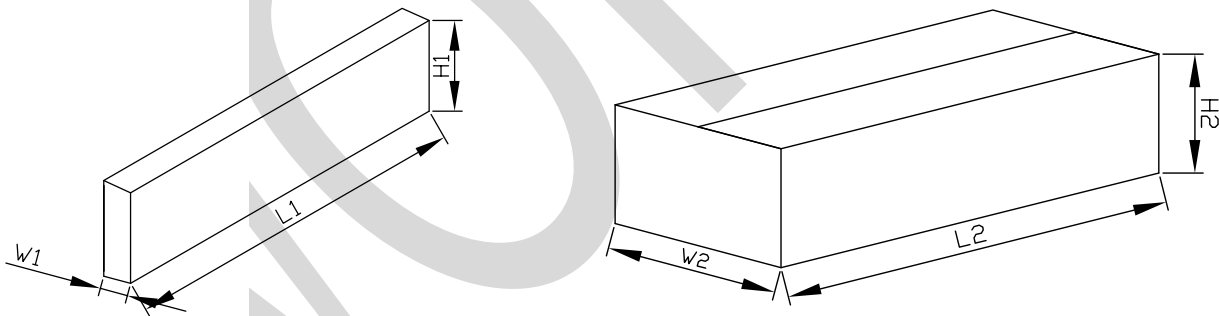
Packaging Information

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 |
| 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 | | | | | | | | | |