

**/ Descriptions**

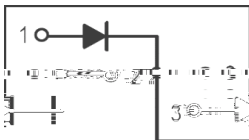
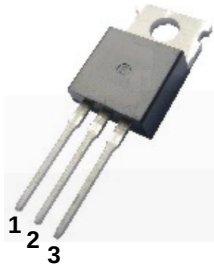
Schottky Barrier Diode in a TO-220 Plastic Package.

**/ Features**

Low forward voltage drop, low power losses, High efficiency operation.

**/ Applications**

For use in high frequency inverters, switching power supplies, freewheeling diodes, OR-ing diode, dc-to-dc converters and reverse battery protection.

**/ Equivalent Circuit****/ Pinning**

PIN1 Anode    PIN 2 Cathode    PIN 3 Anode

**/  $h_{FE}$  Classifications & Marking**

See Marking Instructions.

/ Absolute Maximum Ratings( $T_a=25^\circ\text{C}$ )

| Parameter                                                                              | Symbol                            | Rating          | Unit                      |
|----------------------------------------------------------------------------------------|-----------------------------------|-----------------|---------------------------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RM}$<br>$V_{RSM}$<br>$V_{DC}$ | 150             | V                         |
| RMS Reverse Voltage                                                                    | $V_{RMS}$                         | 105             | V                         |
| Average Rectified Output Current                                                       | $I_{F(AV)}$                       | $2 \times 5$    | A                         |
| Non Repetitive Peak Surge Current                                                      | $I_{FSM}$                         | 80              | A                         |
| Thermal Resistance Junction to Case                                                    | $R_{\theta JC}$                   | 3.0             | $^\circ\text{C}/\text{W}$ |
| Junction and Storage Temperature Range                                                 | $T_j$ $T_{stg}$                   | $-55 \sim +150$ | $^\circ\text{C}$          |

/ Electrical Characteristics( $T_a=25^\circ\text{C}$ )

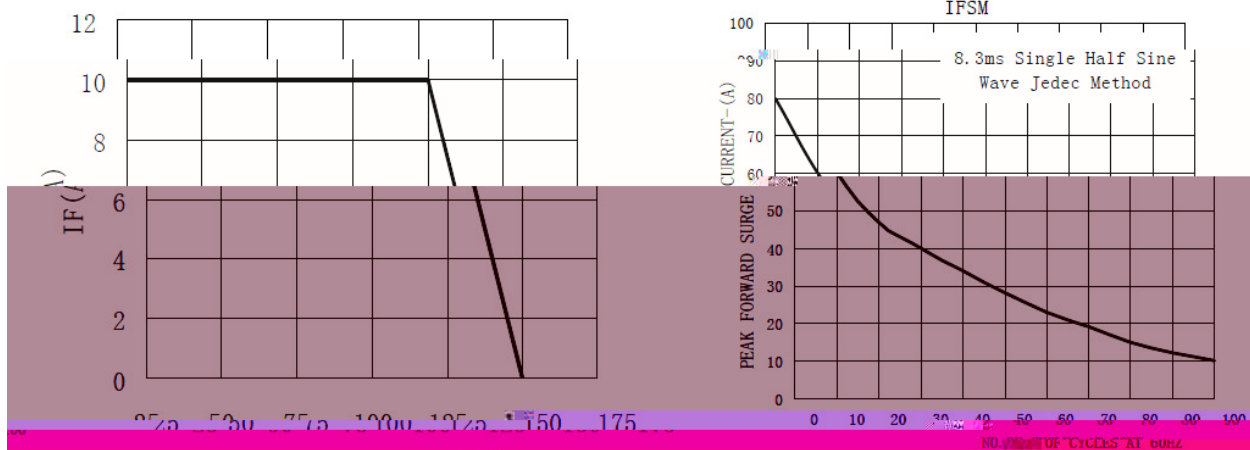
| Parameter                     | Symbol            | Test Conditions                          | Min | Typ  | Max  | Unit          |
|-------------------------------|-------------------|------------------------------------------|-----|------|------|---------------|
| Breakdown Reverse Voltage     | $V_{BR}$          | $I_R=1\text{mA}(T_a=25^\circ\text{C})$   | 150 |      |      | V             |
| Forward Voltage               | $V_F$             | $I_F=3\text{A}(T_a=25^\circ\text{C})$    |     | 0.76 | 0.83 | V             |
|                               |                   | $I_F=5\text{A}(T_a=25^\circ\text{C})$    |     | 0.86 | 0.95 | V             |
|                               |                   | $I_F=3\text{A}(T_a=125^\circ\text{C})$   |     | 0.61 |      | V             |
|                               |                   | $I_F=5\text{A}(T_a=125^\circ\text{C})$   |     | 0.67 | 0.75 | V             |
| Instantaneous Reverse Current | $I_R$<br>(Note 1) | $V_R=150\text{V}(T_a=25^\circ\text{C})$  |     |      | 15   | $\mu\text{A}$ |
|                               |                   | $V_R=150\text{V}(T_a=125^\circ\text{C})$ |     | 1.0  | 5.0  | mA            |

/Notes:

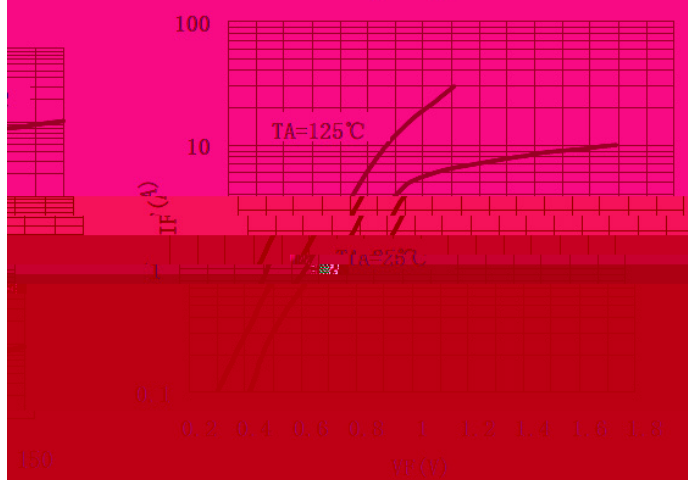
1.  $\circ$  /Short duration pulse test used to minimize self-heating effect.
2.  $\circ$  / Unless otherwise noted, values for the parameters of a single chip

/ Electrical Characteristic Curve

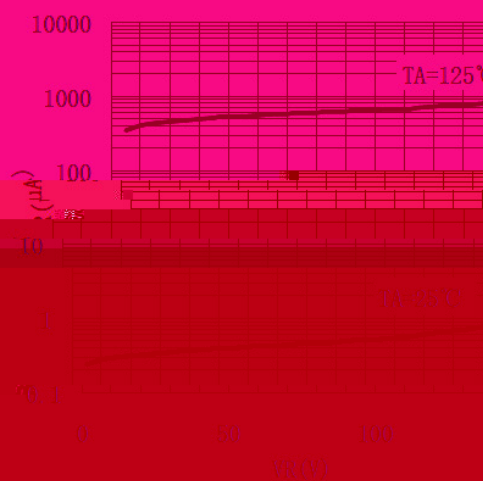
IF - TC



IF - VF



IR - VR



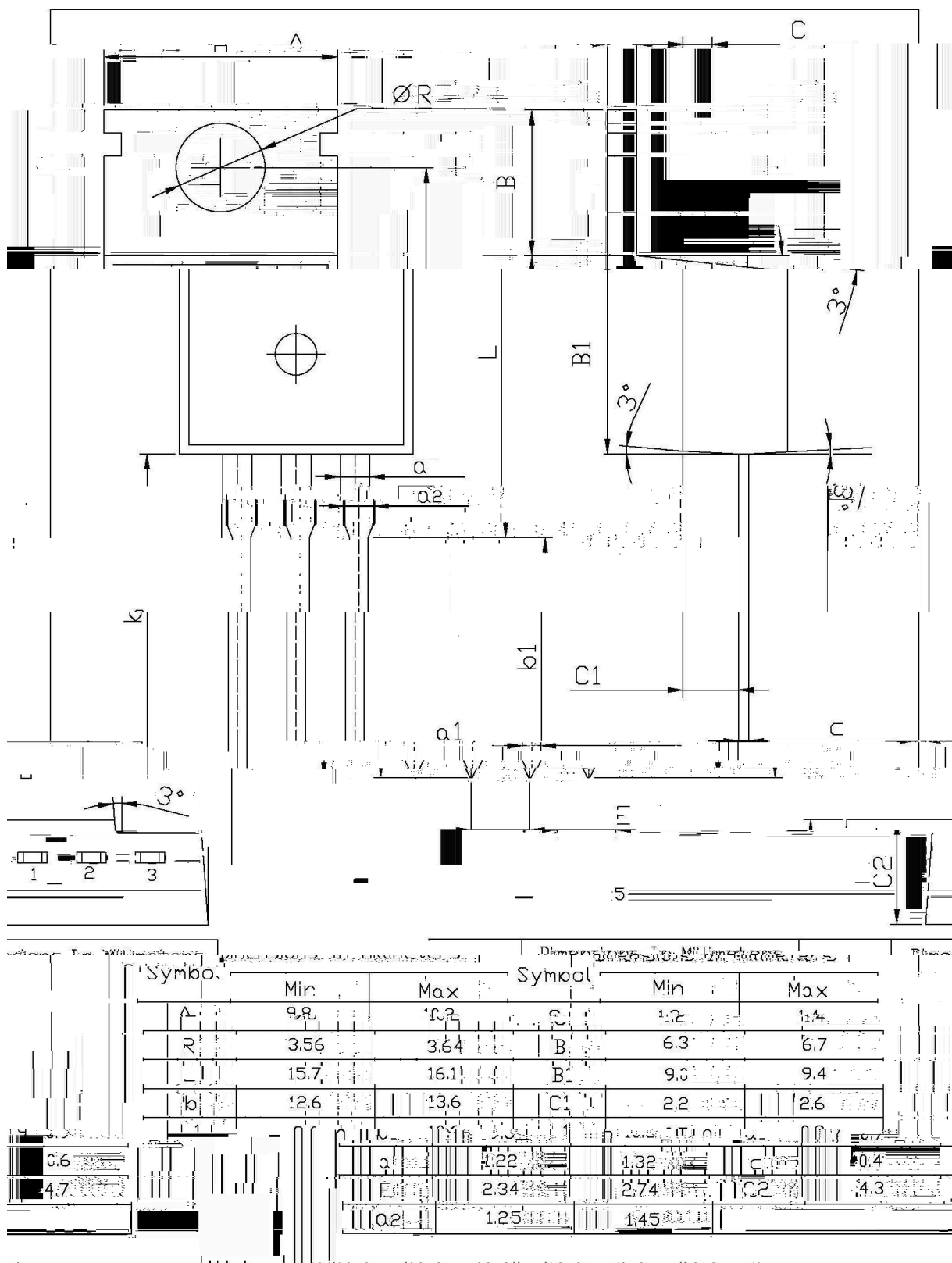
CJ - VR



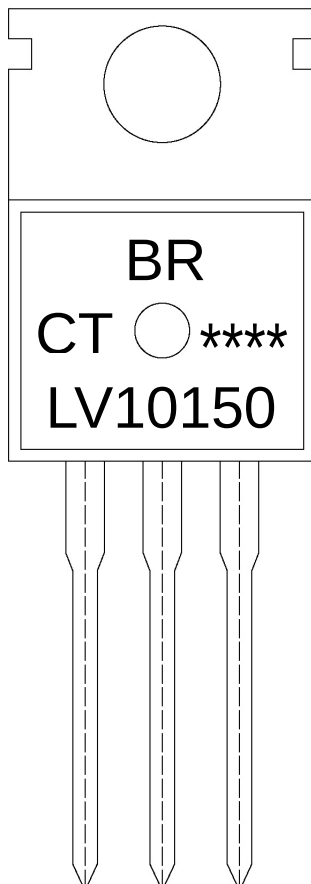
/ Package Dimensions

TQ-220

单位: mm



/ Marking Instructions



Note:

BR:

Company Code

LV10150

Product Type.

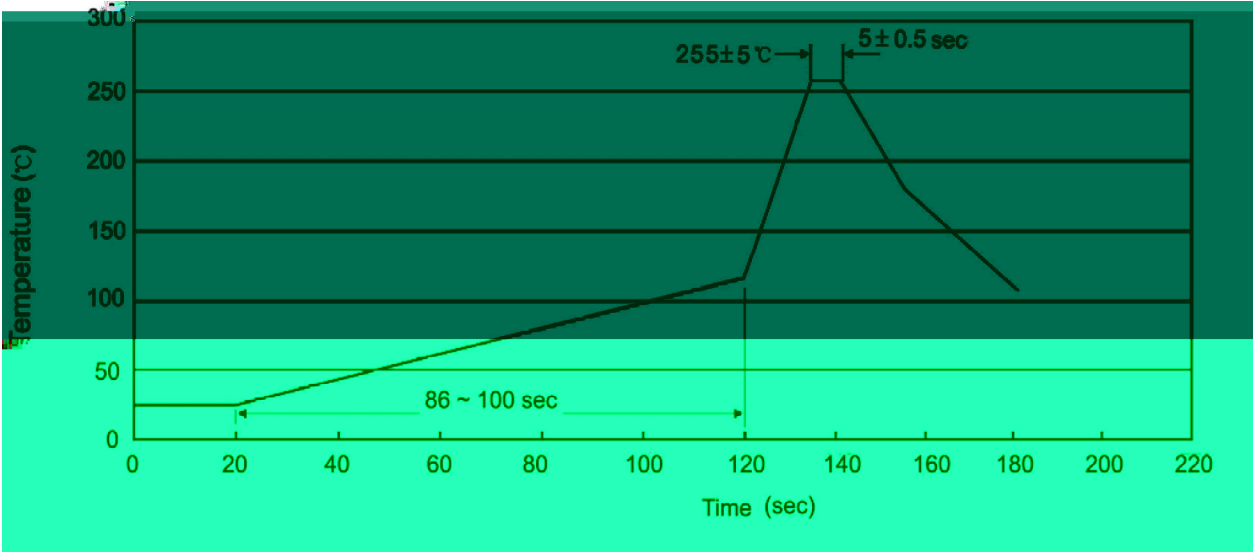
CT:

Internal Structure

\*\*\*\*:

Lot No. Code, code change with Lot No.

( ) / Temperature Profile for Dip Soldering(Pb-Free)



Note:

- 1

25 150

60 90sec;
- 2

255 5

5 0.5sec;
- 3

2 10

/sec.
- 1.Preheating:25~150

, Time:60~90sec.
- 2.Peak Temp.:255 5

, Duration:5 0.5sec.
3. Cooling Speed: 2~10

/sec.

/ Resistance to Soldering Heat Test Conditions

270 5                      10 1 sec.                      Temp.:270±5                      Time:10±1 sec

/ Packaging SPEC.

/ BULK

| Package Type | Units     |                |                 |                       |                 | Dimension (unit mm <sup>3</sup> ) |             |             |
|--------------|-----------|----------------|-----------------|-----------------------|-----------------|-----------------------------------|-------------|-------------|
|              | Units/Bag | Bags/Inner Box | Units/Inner Box | Inner Boxes/Outer Box | Units/Outer Box | Bag                               | Inner Box   | Outer Box   |
| TO-220/F     | 200       | 10             | 2,000           | 5                     | 10,000          | 135×190                           | 237×172×102 | 560×245×195 |