

LV10100FCT

Rev.E Mar.-2016

/ Descriptions

TO-220F

Schottky Diode in a TO-220F Plastic Package.

/ Features

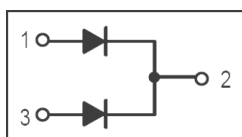
Low forward voltage drop, low power losses, High efficiency operation.

/ Applications

OR-ing DC-DC

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(Ta=25)

| Parameter | Symbol | Rating | Unit |
|--|-----------------------------------|----------|------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V_{RM} V_{RSM} V_{DC} | 100 | V |
| RMS Voltage | V_{RMS} | 70 | V |
| Average Rectified Forward Current | $I_{F(AV)}$ | 2× 5 | A |
| Non Repetitive Peak Surge Current | I_{FSM} | 80 | A |
| Thermal Resistance Junction to Case | R_{Jc} | 4.5 | °C/W |
| Junction and Storage Temperature Range | T_j T_{stg} | -40 +150 | °C |

/ Electrical Characteristics(Ta=25)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|-------------------------------|--------------|-----------------------------|-----|------|------|---------|
| Breakdown Voltage | V_{BR} | $I_R=1mA(Ta=25^{\circ}C)$ | 100 | | | V |
| Forward Voltage | V_F | $I_F=3A(Ta=25^{\circ}C)$ | | 0.59 | 0.65 | V |
| | | $I_F=3A(Ta=125^{\circ}C)$ | | 0.53 | 0.60 | V |
| | | $I_F=5A(Ta=25^{\circ}C)$ | | 0.69 | 0.75 | V |
| | | $I_F=5A(Ta=125^{\circ}C)$ | | 0.61 | 0.65 | V |
| Instantaneous Reverse Current | I_R Note 1 | $V_R=100V(Ta=25^{\circ}C)$ | | | 50 | μA |
| | | $V_R=100V(Ta=125^{\circ}C)$ | | 3.0 | 10 | mA |

/Notes

1.

Short duration pulse test used to minimize self-heating effect.

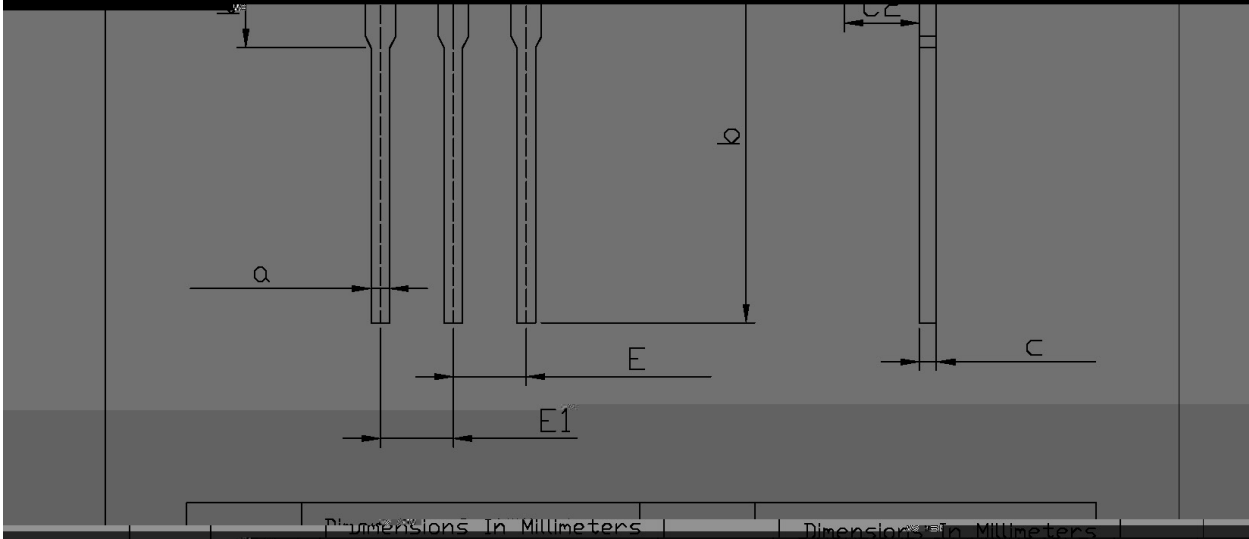
2.

Unless otherwise noted, values for the parameters of a single chip

/ Package Dimensions

TO-220F

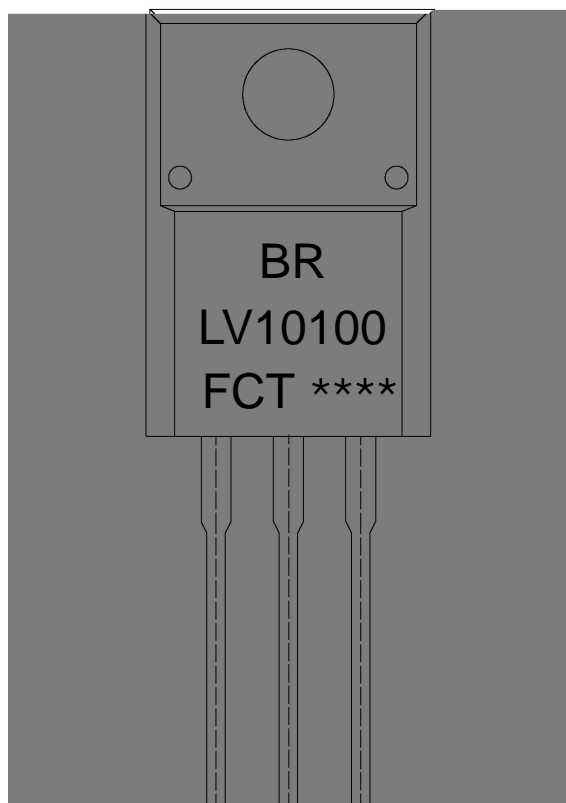
单位: mm



Dimensions In Millimeters

Dimensions In Millimeters

/ Marking Instructions



BR

LV10100

F:

CT:

Note:

BR: Company Code

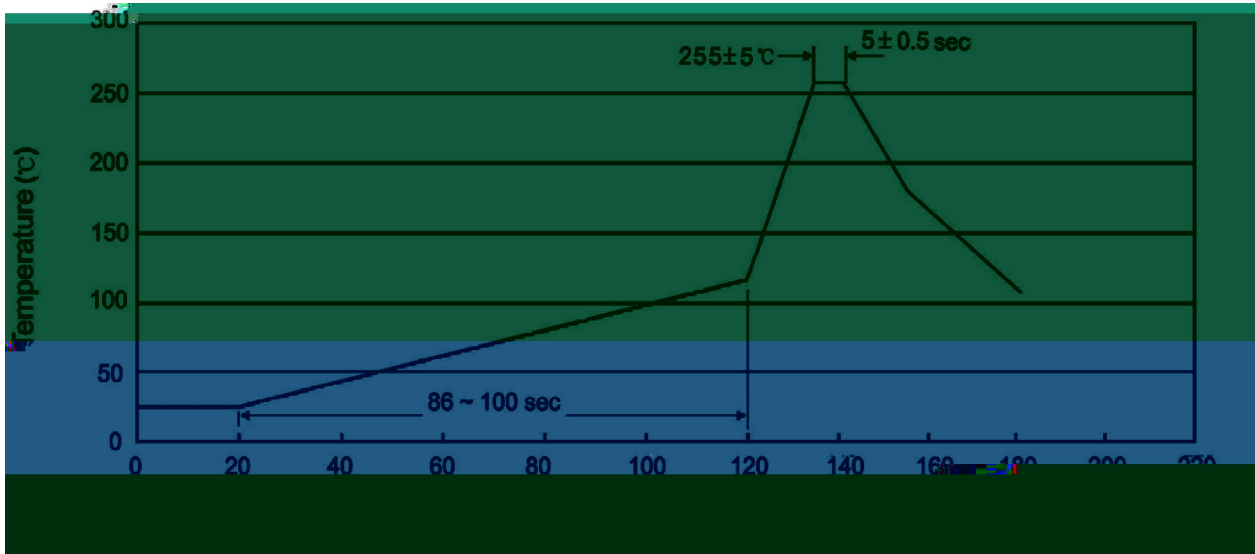
LV10100: Product Type Code.

F Package Code

CT: Internal Structure

****: Lot No. Code, code change with Lot No.

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



Note:

- | | | | | | |
|---|-------|-----|-----------|--------|---|
| 1 | 25 | 150 | 60 | 90sec; | 1.Preheating:25~150 , Time:60~90sec. |
| 2 | 255±5 | | 5±0.5sec; | | 2.Peak Temp.:255±5 , Duration:5±0.5sec. |
| 3 | | 2 | 10 | /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ BULK

| Package Type 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm ³) | | |
|----------------------|------------------|-----------------------|------------------------|------------------------------|------------------------|---|-------------|-------------|
| | Units/Bag 只/袋 | Bags/Inner Box 袋/盒 | Units/Inner Box 只/盒 | Inner Boxes/Outer Box 盒/箱 | Units/Outer Box 只/箱 | Bag 袋 | Inner Box 盒 | Outer Box 箱 |
| TO-220/F | 200 | 10 | 2,000 | 5 | 10,000 | 135×190 | 237×172×102 | 560×245×195 |

/ TUBE

| Package Type 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm ³) | | |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|---|-------------|-------------|
| | Units/Tube 只/套管 | Tubes/Inner Box 套管/盒 | Units/Inner Box 只/盒 | Inner Boxes/Outer Box 盒/箱 | Units/Outer Box 只/箱 | Tube 套管 | Inner Box 盒 | Outer Box 箱 |
| TO-220/F | 50 | 20 | 1,000 | 5 | 5,000 | 532×31.4×5.5 | 555×164×50 | 575×290×180 |

/ Notices