

**/ Descriptions**

TO-263

Schottky Barrier Diode in a TO-263 Plastic Package.

**/ Features**

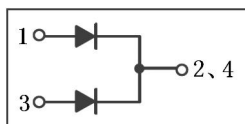
Low forward voltage drop, low power losses, High efficiency operation.

**/ 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 4 Cathode

PIN 3 Anode

**/ h<sub>FE</sub> Classifications & Marking**

See Marking Instructions.

/ Absolute Maximum Ratings( $T_a=25$  )

| Parameter                              | Symbol        | Rating   | Unit |
|----------------------------------------|---------------|----------|------|
| Peak Repetitive Reverse Voltage        | $V_{RRM}$     | 45       | V    |
| Average forward rectified Current      | $I_F$         | 2X15     | A    |
| Non Repetitive Peak Surge Current      | $I_{FSM}$     | 250      | A    |
| Thermal Resistance Junction to Case    | $R_{JC}$      | 2.8      | /W   |
| Junction and Storage Temperature Range | $T_j T_{stg}$ | -40~+150 |      |

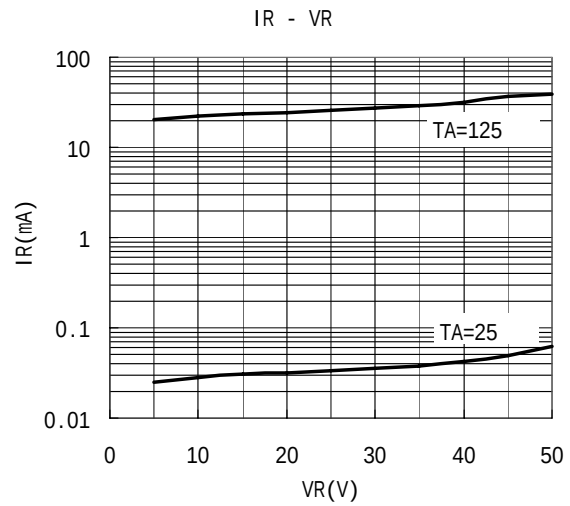
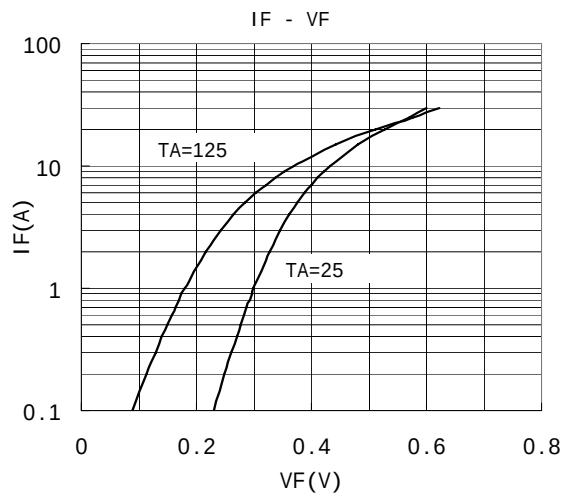
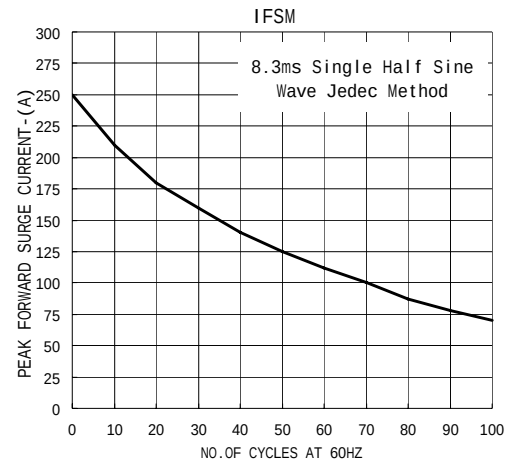
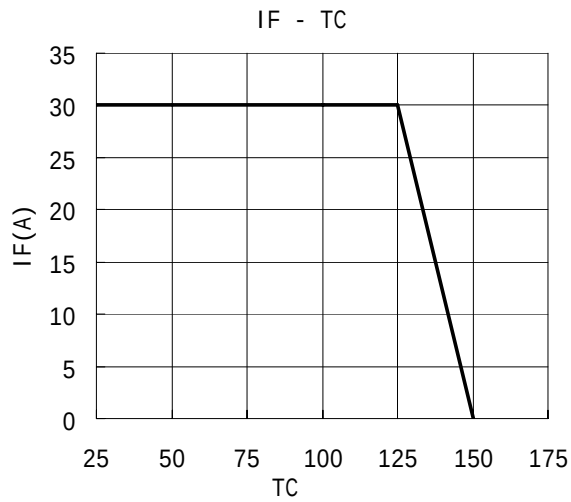
/ Electrical Characteristics( $T_a=25$  )

| Parameter                     | Symbol          | Test Conditions     | Min | Typ  | Max  | Unit    |
|-------------------------------|-----------------|---------------------|-----|------|------|---------|
| Reverse Voltage               | $V_{(BR)R}$     | $I_R=1mA$ $T_a=25$  | 45  |      |      | V       |
| Forward Voltage               | $V_{FM}$        | $I_F=5.0A$ $T_a=25$ |     | 0.38 | 0.45 | V       |
|                               |                 | $I_F=15A$ $T_a=25$  |     | 0.48 | 0.55 | V       |
|                               |                 | $I_F=5A$ $T_a=125$  |     | 0.28 | 0.35 | V       |
|                               |                 | $I_F=15A$ $T_a=125$ |     | 0.45 | 0.50 | V       |
| Instantaneous Reverse Current | $I_R$<br>Note 1 | $V_R=45V$ $T_a=25$  |     |      | 200  | $\mu A$ |
|                               |                 | $V_R=45V$ $T_a=125$ |     | 40   | 100  | mA      |

/Notes

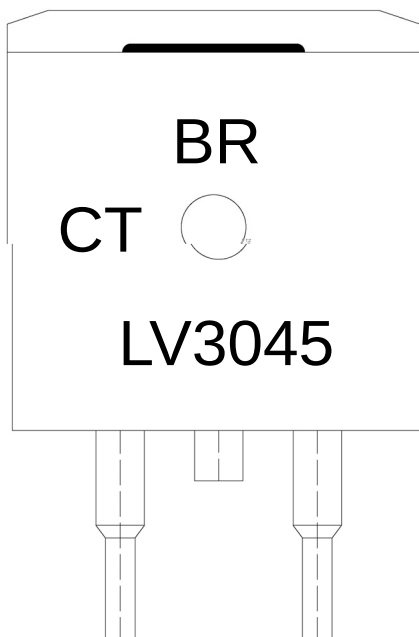
1. /Short duration pulse test used to minimize self-heating effect.
2. / Unless otherwise noted, values for the parameters of a single chip.

**I Electrical Characteristic Curve**



| 单位: mm                    |        |                           |       |        |                           |       |
|---------------------------|--------|---------------------------|-------|--------|---------------------------|-------|
| Dimensions in Millimeters | Symbol | Dimensions in Millimeters |       | Symbol | Dimensions in Millimeters |       |
|                           |        | Min                       | Max   |        | Min                       | Max   |
| A                         |        | 4.30                      | 4.70  | E      | 0.00                      | 0.00  |
| B                         |        | 1.00                      | 1.40  | e1     | 2.34                      | 2.34  |
| b                         |        | 0.70                      | 0.90  | e2     | 4.88                      | 4.88  |
| b1                        |        | 1.15                      | 1.35  | L1     | 15.00                     | 15.00 |
| b2                        |        | 0.40                      | 0.60  | L2     | 2.28                      | 2.28  |
| C                         |        | 1.20                      | 1.40  | L3     | 1.20                      | 1.20  |
| D                         |        | 9.80                      | 10.20 |        |                           |       |

/ Marking Instructions



BR

LV3045

CT:

\*\*\*\*

Note:

BR:

Company Code

LV3045

Product Type.

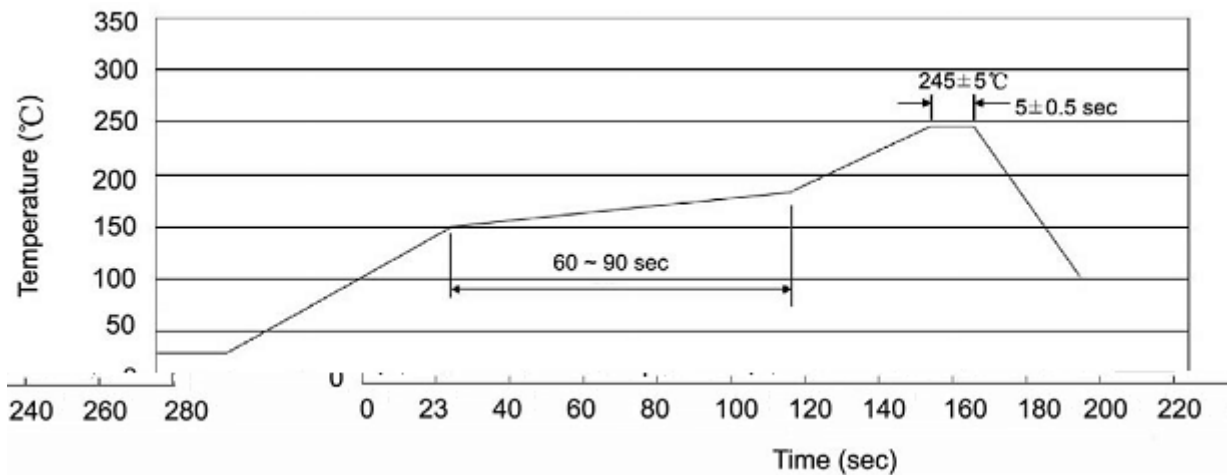
CT:

Internal Structure

\*\*\*\*:

Lot No. Code, code change with Lot No.

## ( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- |   |       |     |           |        |                                         |
|---|-------|-----|-----------|--------|-----------------------------------------|
| 1 | 25    | 150 | 60        | 90sec; | 1.Preheating:25~150 , Time:60~90sec.    |
| 2 | 245±5 |     | 5±0.5sec; |        | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 |       | 2   | 10        | /sec.  | 3. Cooling Speed: 2~10 /sec.            |

## / Resistance to Soldering Heat Test Conditions

260±5      10±1 sec.      Temp.:260±5      Time:10±1 sec

## / Packaging SPEC.

## / REEL

| Package Type<br>封装形式 | Units 包装数量 |      |     |     |     | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |   |   |
|----------------------|------------|------|-----|-----|-----|-----------------------------------------|---|---|
|                      | 只 卷盘       | 卷盘 盒 | 只 盒 | 盒 箱 | 只 箱 |                                         | 盒 | 箱 |
|                      |            |      |     |     |     |                                         |   |   |

## / TUBE

| Package Type<br>封装形式 | Units 包装数量 |      |     |     |     | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |   |   |
|----------------------|------------|------|-----|-----|-----|-----------------------------------------|---|---|
|                      | 只 套管       | 套管 盒 | 只 盒 | 盒 箱 | 只 箱 | 套管                                      | 盒 | 箱 |
|                      |            |      |     |     |     |                                         |   |   |

## / Notices