TO-263

Schottky Barrier Diode in a TO-263 Plastic Package.

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

OR-ing

DC-DC

For use in solar cell junction box as a bypass diode for protection,For use in high frequency inverters, switching power supplies, freewheeling diodes,OR-ing diode, dc-to-dc converters and reverse battery protection.






PIN1  Anode  PIN 2  4  Cathode  PIN 3  Anode

See Marking Instructions.

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 50 | V |
| Maximum RMS Voltage | $V_{RMS}$ | 31.5 | V |
| Maximum Average forward current | $I_{F(AV)}$ | 30 | A |
| Non Repetitive Peak Surge Current | $I_{FSM}$ | 350 | A |
| Thermal Resistance Junction to Case | $R_{\theta Jc}$ | 1.6 | /W |
| Operating junction and storage temperature range (AC mode) | $T_j$ , $T_{stg}$ | -65 +150 | |
| Junction temperature in DC forward current without reverse bias, t≤1 h | $T_j$ max. (1) | ≤200 | |

/Notes

1 In accordance with the IEC 61215 Ed.2 bypass diode heating test standard,tested under forward DC condition,no reverse voltage drod was applied,the power up time is less than 1H.bypass diode thermal test DC forward current without reverse bias.

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Breakdown voltage | $V_{BR}$ | $I_R$ =500 uA | 50 | | | V |
| Forward Voltage | $V_F$ Note 1 | $I_F$ =15A($T_A$ =25 ) | | 0.45 | 0.50 | V |
| | | $I_F$ =30A($T_A$ =25 ) | | 0.50 | 0.54 | V |
| | | $I_F$ =15A($T_A$ =125 ) | | | 0.40 | V |
| | | $I_F$ =30A($T_A$ =125 ) | | | 0.50 | V |
| Instantaneous Reverse Current | $I_R$ Note 2 | $V_R$=45V($T_A$ =25 ) | | | 100 | μA |
| | | $V_R$=45V($T_A$ =125 ) | | | 50 | mA |

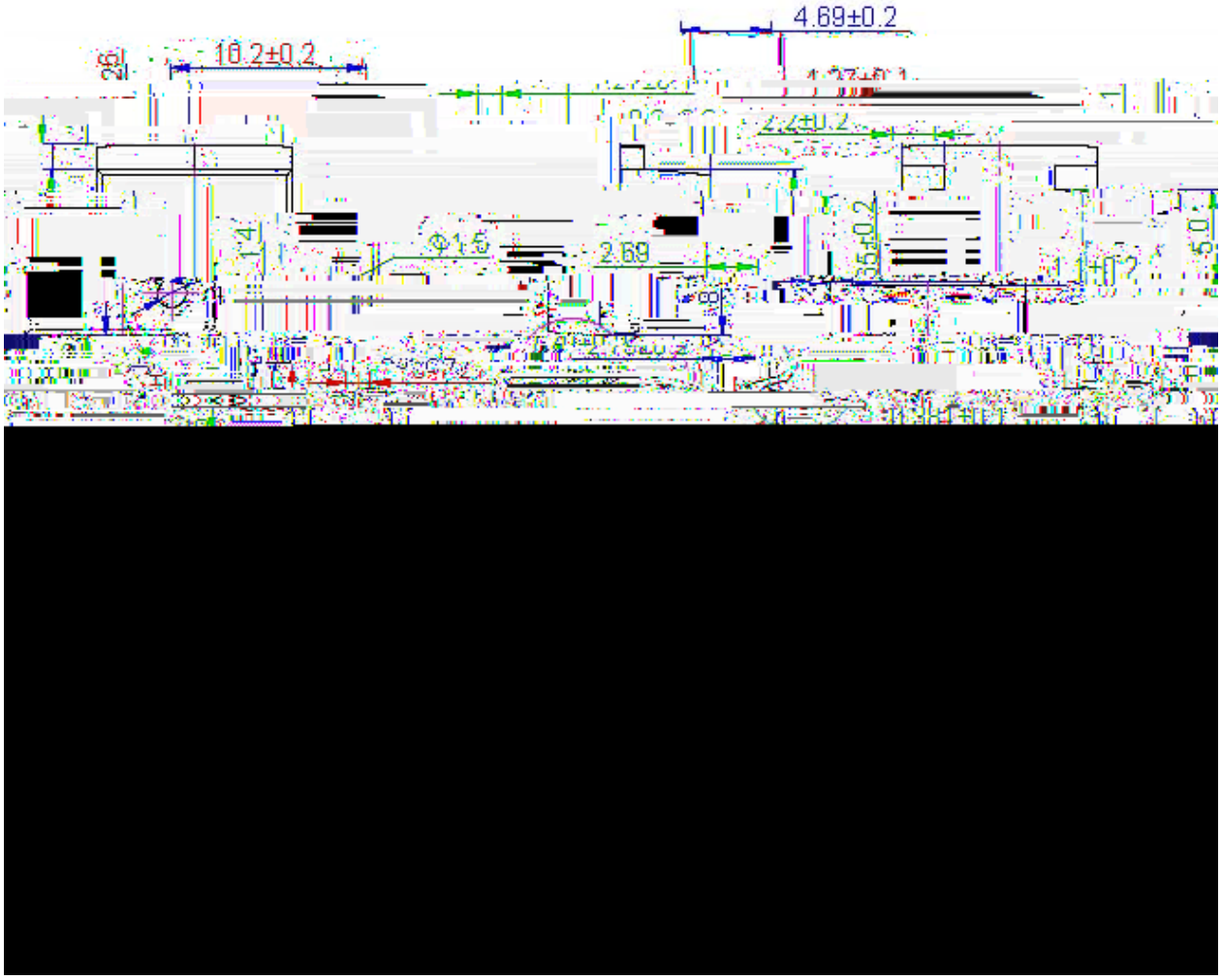
/Notes

(1) Pulse test: 300 μs pulse width, 1 % duty cycle

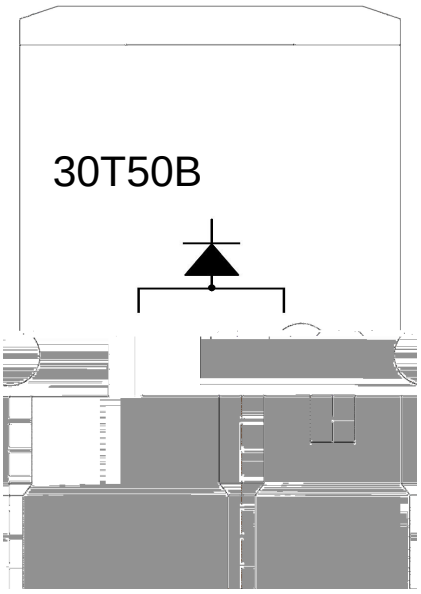
(2) Pulse test: Pulse width ≤ 40 ms

(3)

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




± 0.15mm R 0.15mm




30T50B


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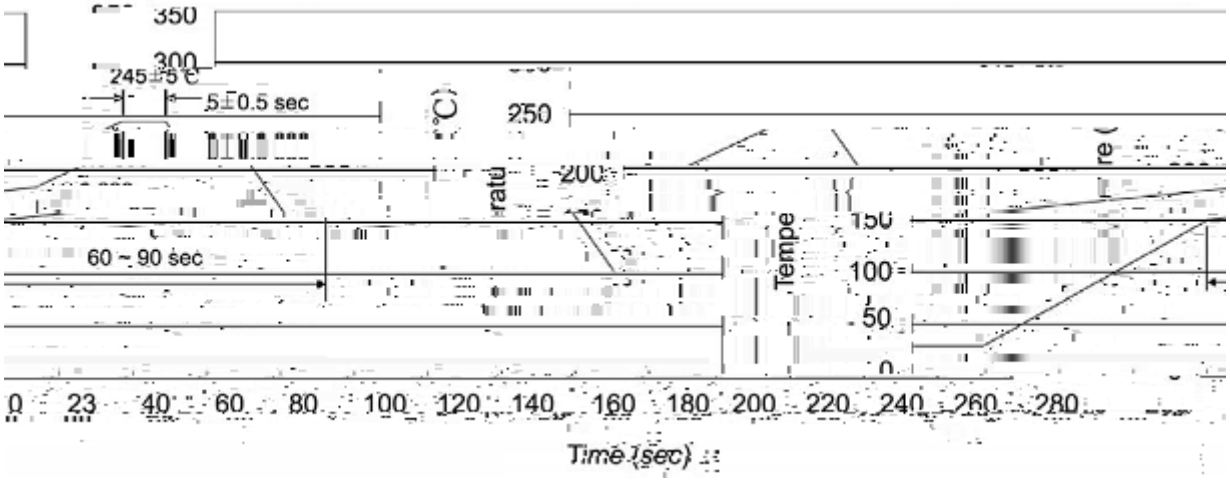
Note:

30T50B Product Type Code.


: Internal Structure

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

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




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 25 | 150 | | 60 | 90sec; | Note: 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. |

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

/ TUBE

| Package Type | Units | Dimension (unit mm$^3$) |
|---|---|---|