

## TO-263

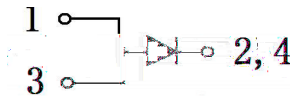
Schottky Barrier Diode in a TO-263 Plastic Package.

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        | °C/W |
| Operating junction and storage temperature range (AC mode)                    | $T_j, T_{stg}$            | -65~+150   | °C   |
| Junction temperature in DC forward current without reverse bias, $t \leq 1$ h | $T_j \text{ max. }^{(1)}$ | $\leq 200$ | °C   |

/Notes

1 In accordance with the IEC 61215 Ed.2 bypass diode heating test standard, tested under forward DC condition, no reverse voltage drop 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             | $V_{BR}$          | $I_R = 500 \mu A$               | 50  |      |      | V       |
| Forward Voltage               | $V_F$<br>(Note 1) | $I_F = 15A (T_A = 25^\circ C)$  |     | 0.45 | 0.50 | V       |
|                               |                   | $I_F = 30A (T_A = 25^\circ C)$  |     | 0.50 | 0.54 | V       |
|                               |                   | $I_F = 15A (T_A = 125^\circ C)$ |     |      | 0.40 | V       |
|                               |                   | $I_F = 30A (T_A = 125^\circ C)$ |     |      | 0.50 | V       |
| Instantaneous Reverse Current | $I_R$<br>(Note 2) | $V_R = 45V (T_A = 25^\circ C)$  |     |      | 100  | $\mu A$ |
|                               |                   | $V_R = 45V (T_A = 125^\circ C)$ |     |      | 50   | mA      |

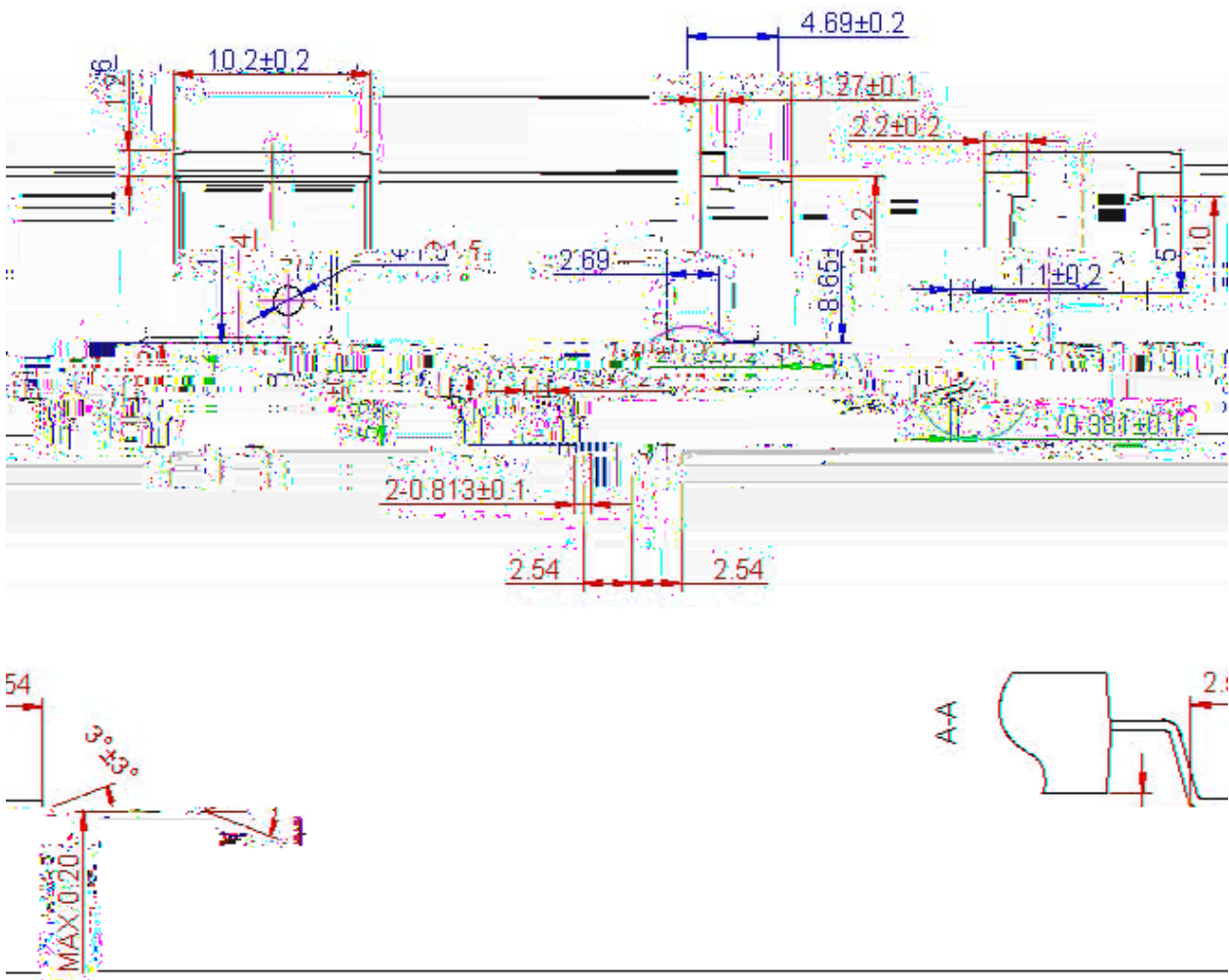
/Notes

(1) Pulse test: 300  $\mu s$  pulse width, 1 % duty cycle

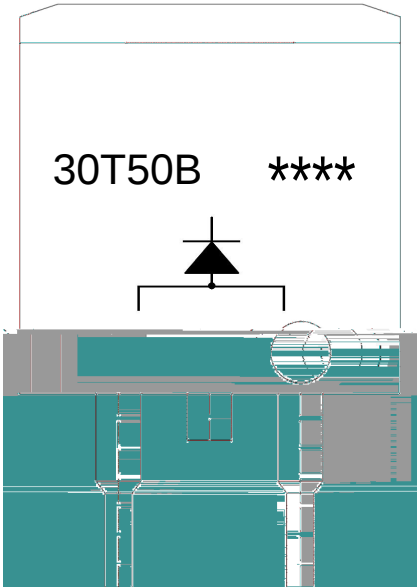
(2) Pulse test: Pulse width  $\leq 40$  ms

(3)

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



注：未注公差 $\pm 0.15\text{mm}$ ；未注  $R < 0.15\text{mm}$



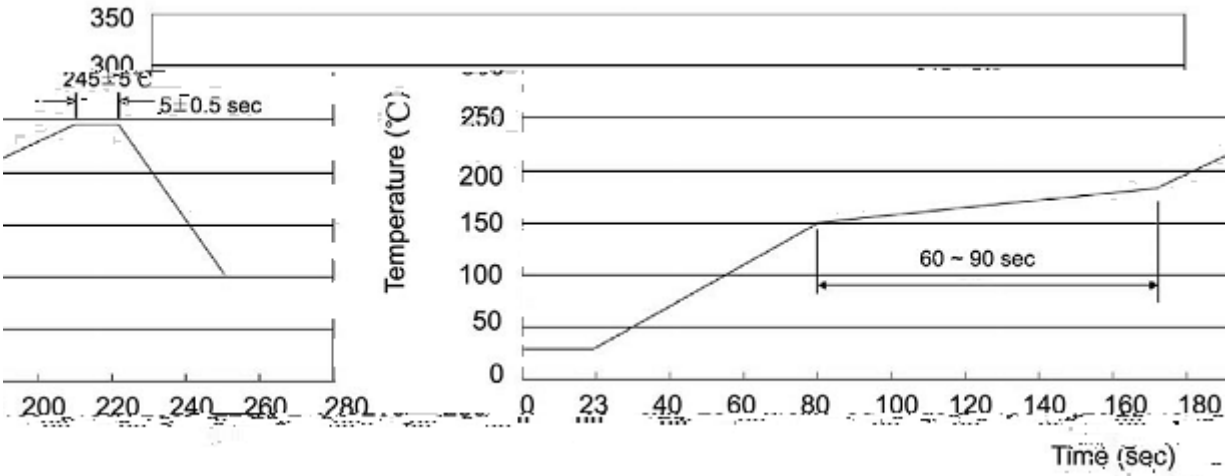
Note:



Product Type Code.

Internal Structure

Lot No. Code, code change with Lot No.



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.

260±5

10±1 sec.

Temp.:260±5

Time:10±1 sec

/ TUBE

| Package Type<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Tube<br>只/套管 | Tubes/Inner Box<br>套管/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Tube 套管                                 | Inner Box 盒 | Outer Box 箱 |
| TO-263               | 50                 | 20                      | 1,000                  | 5                            | 5,000                  | 532×33×7.0                              | 555×164×50  | 575×290×180 |

/ REEL

| Package Type<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Reel<br>只/卷盘 | Reels/Inner Box<br>卷盘/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Reel                                    | Inner Box 盒 | Outer Box 箱 |
| TO-263               | 800                | 1                       | 800                    | 5                            | 4,000                  | 13" ×24                                 | 360×360×50  | 385×257×392 |