



SBS811

Schottky Barrier Diode

30V, 2A, Low V_F , Non-Monolithic Dual VEC8 Common Cathode

ON Semiconductor®

<http://onsemi.com>

Applications

- High frequency rectification (switching regulators, converters, choppers)

Features

- Small Switching noise
- Low forward voltage ($I_F=2A$, V_F max=0.40V)

Specifications

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

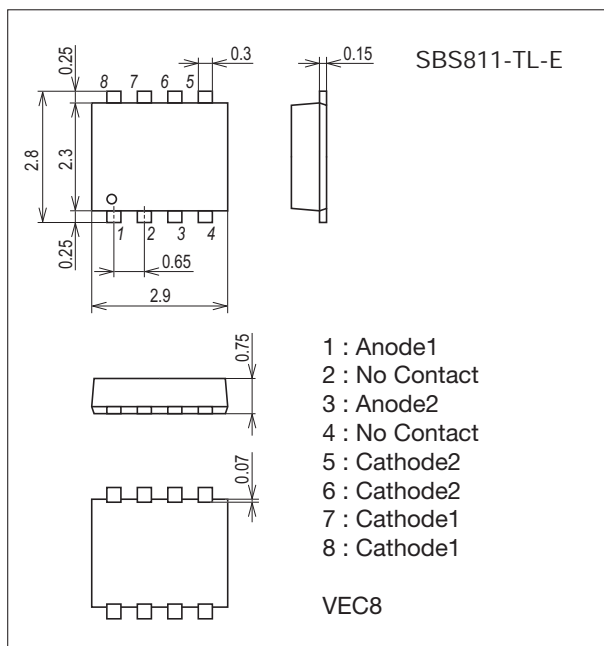
| Parameter | Symbol | Conditions | Ratings | Unit |
|--|-----------|-------------------------|-------------|------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | | 30 | V |
| Nonrepetitive Peak Reverse Surge Voltage | V_{RSM} | | 30 | V |
| Average Output Current | I_O | | 2.0 | A |
| Surge Forward Current | I_{FSM} | 50Hz sine wave, 1 cycle | 10 | A |
| Junction Temperature | T_j | | -55 to +125 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | | -55 to +125 | $^\circ\text{C}$ |

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions

unit : mm (typ)

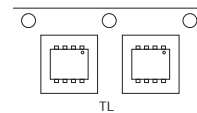
7012-001



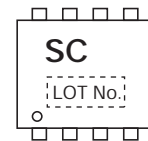
Product & Package Information

- Package : VEC8
- JEITA, JEDEC : -
- Minimum Packing Quantity : 3,000 pcs./reel

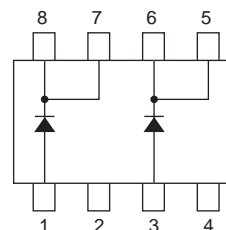
Packing Type : TL



Marking



Electrical Connection

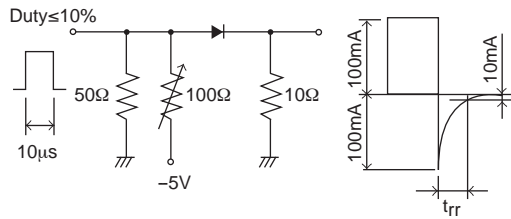


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Electrical Characteristics at $T_a=25^\circ\text{C}$

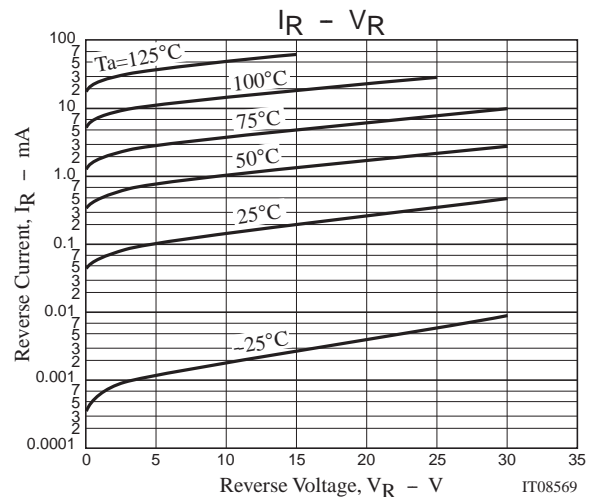
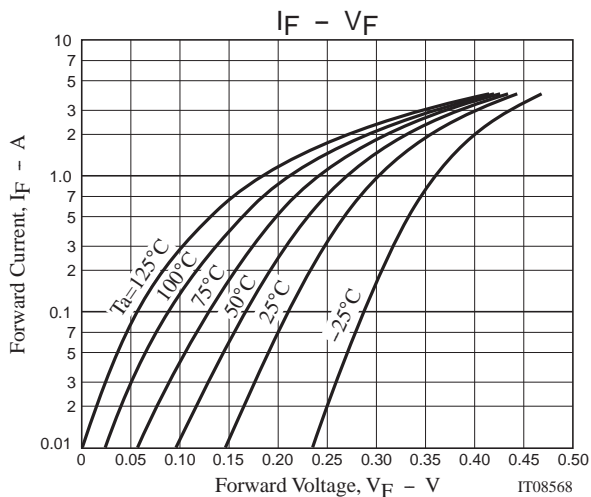
| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---------------------------|----------------|---|---------|------|------|-----------------------------|
| | | | min | typ | max | |
| Reverse Voltage | V_R | $I_R=2.0\text{mA}$ | 30 | | | V |
| Forward Voltage | V_F | $I_F=1.0\text{A}$ | | 0.30 | 0.35 | V |
| | | $I_F=2.0\text{A}$ | | 0.35 | 0.40 | V |
| Reverse Current | I_R | $V_R=15\text{V}$ | | | 1.25 | mA |
| Interterminal Capacitance | C | $V_R=10\text{V}$, $f=1\text{MHz}$ | | 75 | | pF |
| Reverse Recovery Time | t_{rr} | $I_F=I_R=100\text{mA}$, See specified Test Circuit. | | | 20 | ns |
| Thermal Resistance | $R_{th(j-a)1}$ | When Mounted in Cu-foiled area of $1.92\text{mm}^2 \times 0.03\text{mm}$ on glass epoxy substrate | | 75 | | $^\circ\text{C} / \text{W}$ |
| | $R_{th(j-a)2}$ | When mounted on ceramic substrate ($1000\text{mm}^2 \times 0.8\text{mm}$) | | 70 | | $^\circ\text{C} / \text{W}$ |

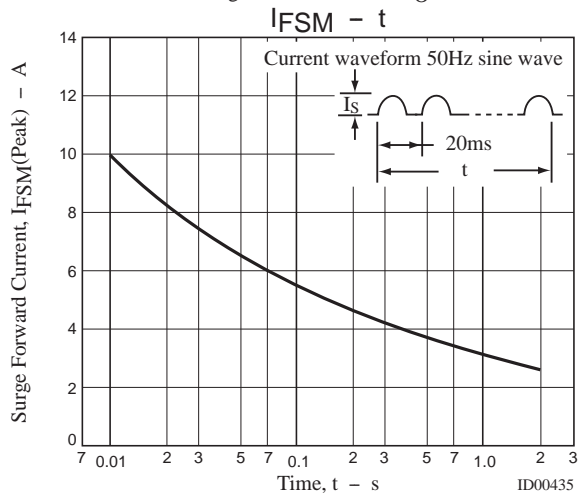
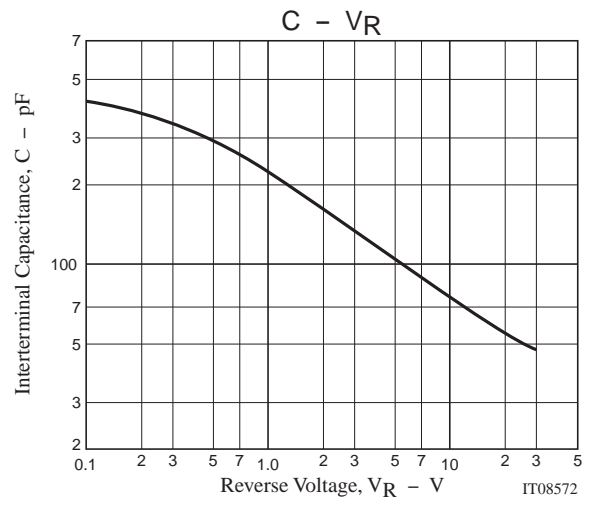
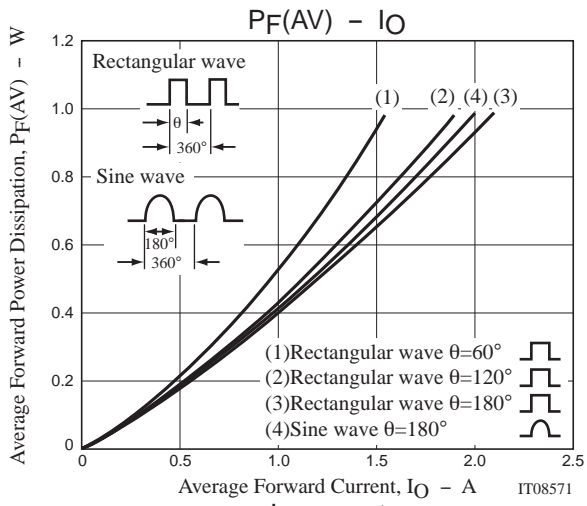
t_{rr} Test Circuit



Ordering Information

| Device | Package | Shipping | memo |
|-------------|---------|----------------|---------|
| SBS811-TL-E | VEC8 | 3,000pcs./reel | Pb Free |





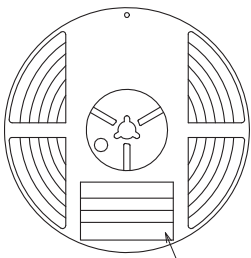
Taping Specification

SBS811-TL-E

1. Packing Format

| Package Name | Carrier Tape Type | Maximum Number of devices contained (pcs) | | | Packing format | |
|--------------|-------------------|---|-----------|-----------|---|--|
| | | Reel | Inner box | Outer box | Inner BOX (C-1) | Outer BOX (A-7) |
| VEC8 | CPH6 | 3,000 | 15,000 | 90,000 | 5 reels contained Dimensions:mm (external) 183×72×185 | 6 inner boxes contained Dimensions:mm (external) 440×195×210 |

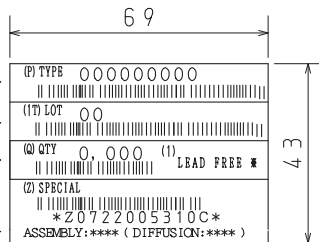
Packing method



Reel label

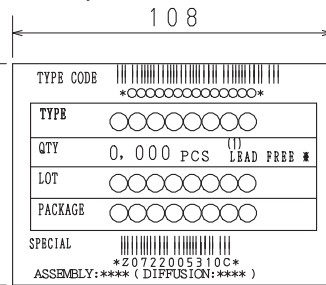
Type No.
LOT No.
Quantity
Origin

Reel label, Inner box label (unit:mm)



Outer box label

It is a label at the time of factory shipments. The form of a label may change in physical distribution process.



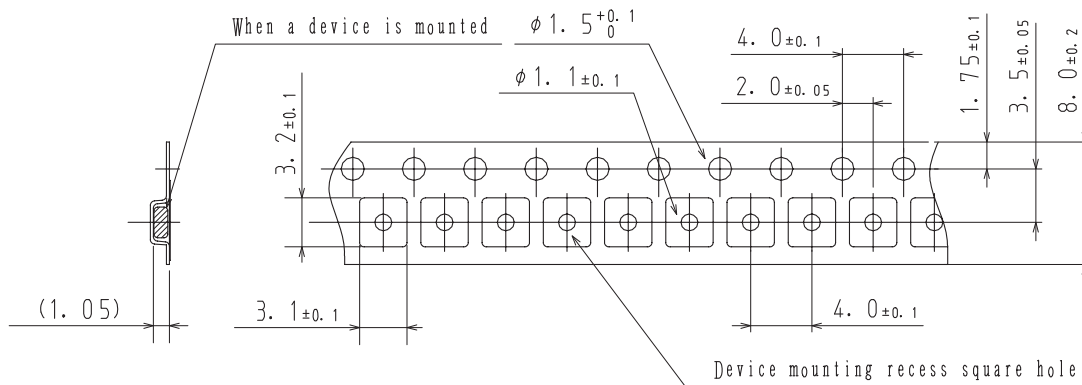
NOTE (1)

The LEAD FREE * description shows that the surface treatment of the terminal is lead free.

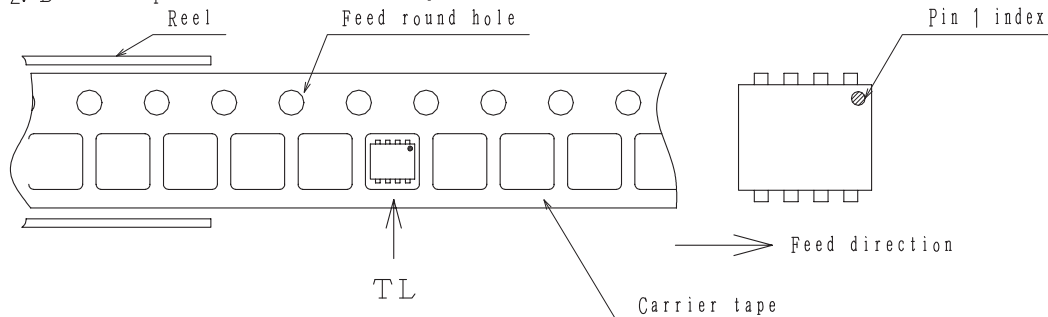
| Label | JEITA Phase |
|-------------|----------------|
| LEAD FREE 3 | JEITA Phase 3A |
| LEAD FREE 4 | JEITA Phase 3 |

2. Taping configuration

2-1. Carrier tape size (unit:mm)



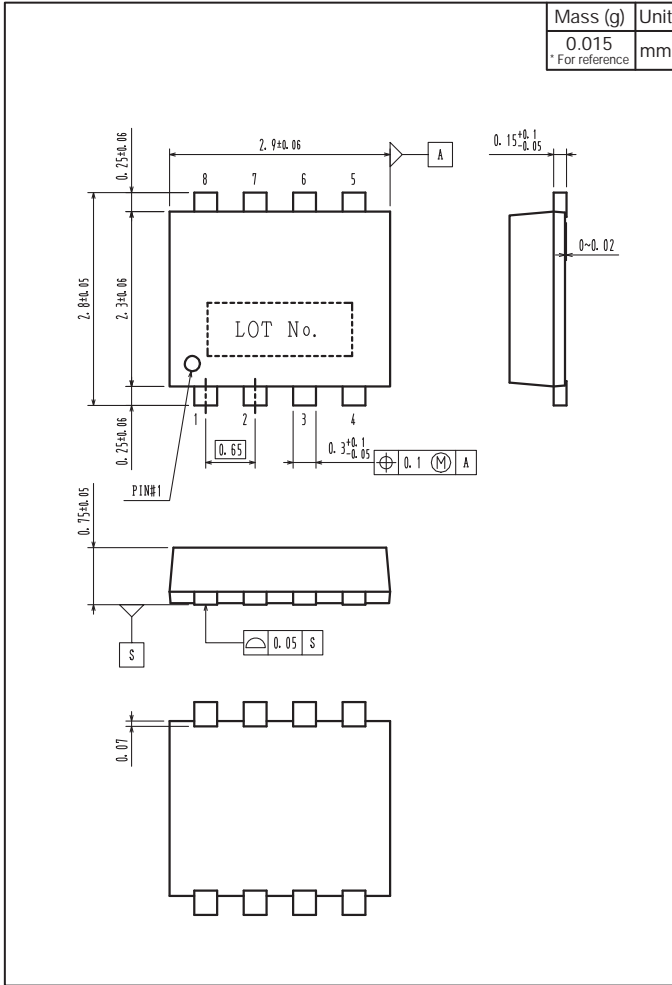
2-2. Device placement direction



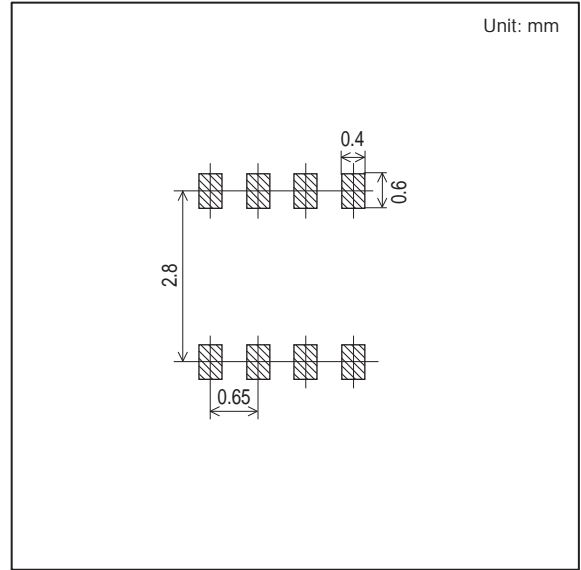
Those with oen electrode terminal on the feed hole side.....TL

SBS811

Outline Drawing SBS811-TL-E



Land Pattern Example



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