



SBE813

Low IR Schottky Barrier Diode
30V, 3.0A Rectifier

Applications

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

Features

- Small switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.
- Ultrasmall package permitting applied sets to be small and slim.

Specifications

Absolute Maximum Ratings at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|--|------------------|-------------------------|-------------|------|
| Repetitive Peak Reverse Voltage | V _{RRM} | | 30 | V |
| Nonrepetitive Peak Reverse Surge Voltage | V _{RSM} | | 35 | V |
| Average Output Current | I _O | | 3.0 | A |
| Surge Forward Current | I _{FSM} | 50Hz sine wave, 1 cycle | 20 | A |
| Junction Temperature | T _J | | -55 to +125 | °C |
| Storage Temperature | T _{stg} | | -55 to +125 | °C |

Electrical Characteristics at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---------------------------|----------------------|--|---------|-------|-------|--------|
| | | | min | typ | max | |
| Reverse Voltage | V _R | I _R =0.5mA | 30 | | | V |
| Forward Voltage | V _{F1} | I _F =2.0A | | 0.435 | 0.485 | V |
| | V _{F2} | I _F =3.0A | | 0.47 | 0.52 | V |
| Reverse Current | I _R | V _R =15V | | | 42 | μA |
| Interterminal Capacitance | C | V _R =10V, f=1MHz | | 90 | | pF |
| Reverse Recovery Time | t _{rr} | I _F =I _R =100mA, See specified Test Circuit. | | | 20 | ns |
| Thermal Resistance | R _{th(j-a)} | Mounted on a ceramic board (1200mm ² X0.8mm) | | 50 | | °C / W |

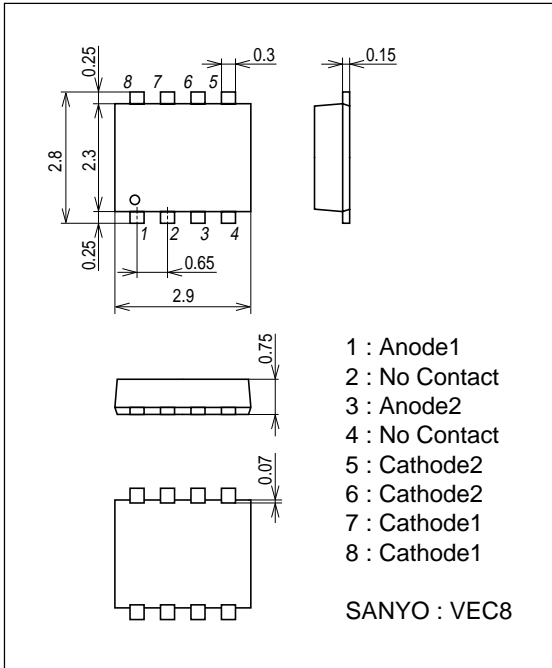
Marking : SE

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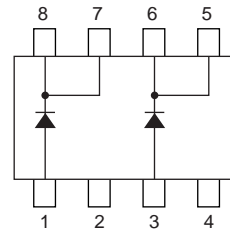
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Package Dimensions

unit : mm
7012-001

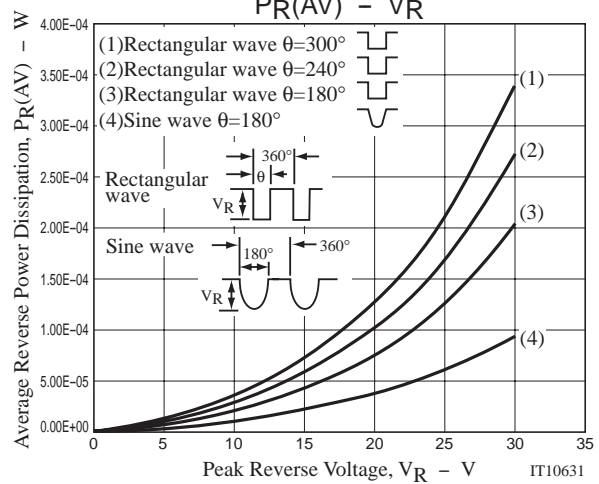
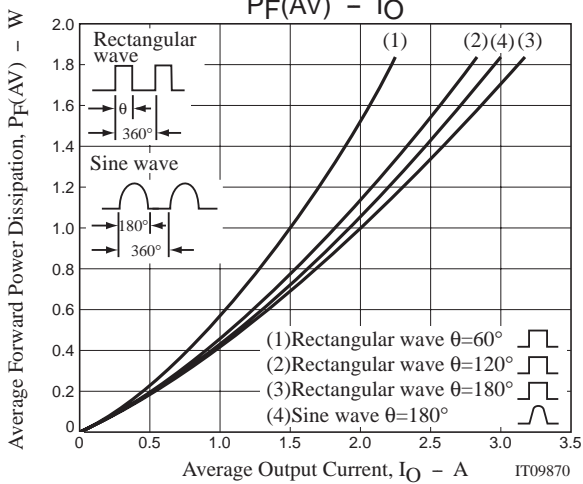
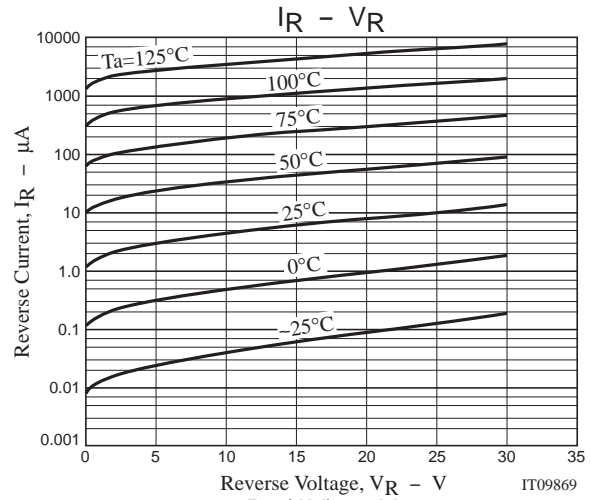
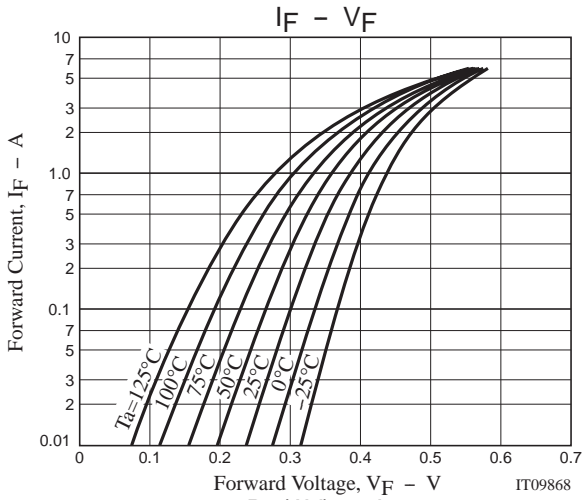


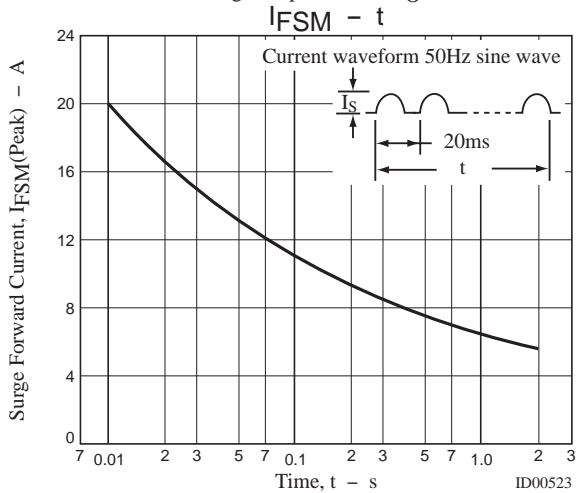
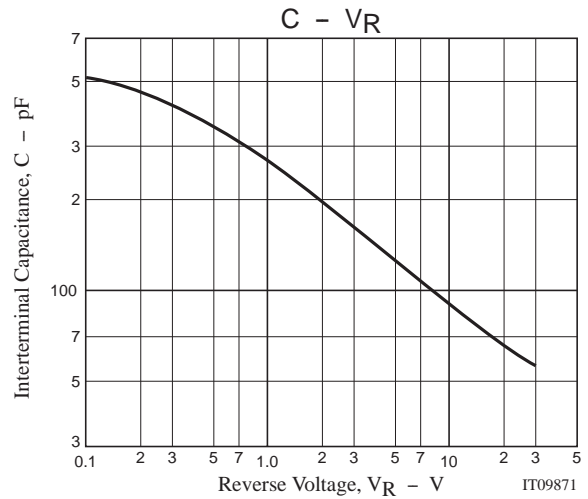
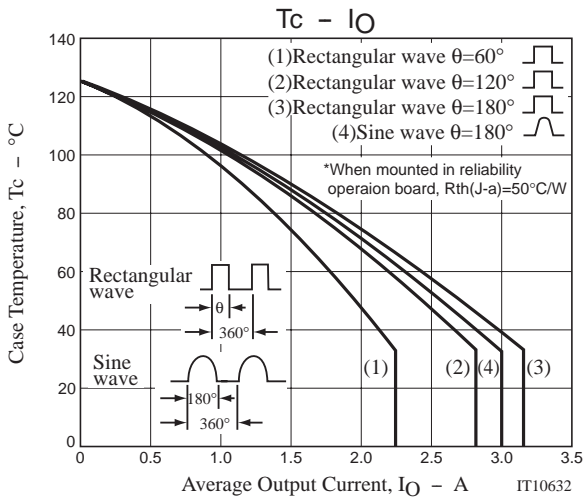
Electrical Connection



- 1 : Anode1
- 2 : No Contact
- 3 : Anode2
- 4 : No Contact
- 5 : Cathode2
- 6 : Cathode2
- 7 : Cathode1
- 8 : Cathode1

Top view





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