



SBS818

Low VF Schottky Barrier Diode
30V, 2.0A Rectifier

Applications

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

Features

- Low switching noise
- Low forward voltage ($I_F=2.0A$, $V_F \text{ max}=0.52V$)
- Ultrasmall package permitting applied sets to be small and slim (Mounting height 0.75mm)

Specifications

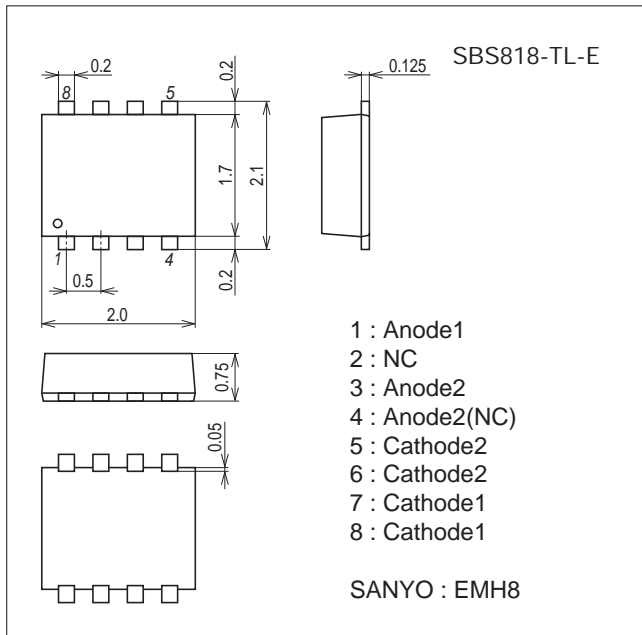
Absolute Maximum Ratings at $T_a=25^\circ C$ (Value per element)

| 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 | When mounted on ceramic substrate (900mm ² ×0.8mm) | 2.0 | A |
| | | When mounted on glass epoxy substrate (0.96mm ² ×0.03mm) | 1.5 | 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 |

Package Dimensions

unit : mm (typ)

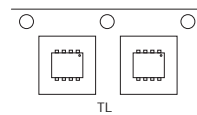
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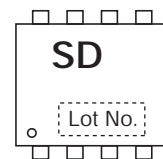
Product & Package Information

- Package : EMH8
- JEITA, JEDEC : -
- Minimum Packing Quantity : 3,000 pcs./reel

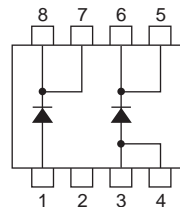
Packing Type : TL



Marking



Electrical Connection



*: Terminal 4 is used for the purposes such as test. Although it is connected to Anode 2, please handle it as NC Terminal.

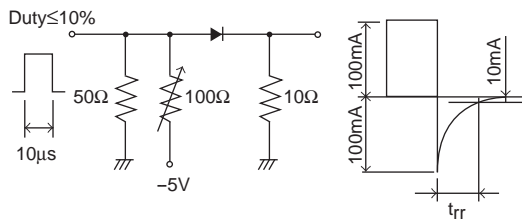
SBS818

Electrical Characteristics at Ta=25°C (Value per element)

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---------------------------|-----------------------|--|---------|------|------|--------|
| | | | min | typ | max | |
| Reverse Voltage | V _R | I _R =1mA | 30 | | | V |
| Forward Voltage | V _{F1} | I _F =1.0A | | 0.37 | 0.42 | V |
| | V _{F2} | I _F =1.5A | | 0.42 | 0.47 | V |
| | V _{F3} | I _F =2.0A | | 0.46 | 0.52 | V |
| Reverse Current | I _R | V _R =15V | | | 350 | μA |
| Interterminal Capacitance | C | V _R =10V, f=1MHz | | 30 | | pF |
| Reverse Recovery Time | t _{rr} | I _F =I _R =100mA, See specified Test Circuit. | | | 10 | ns |
| Thermal Resistance | R _{th(j-a)1} | When mounted in Cu-foiled area of 900mm ² ×0.8mm on glass epoxy substrate | | 100 | | °C / W |
| | R _{th(j-a)2} | When mounted on ceramic substrate (900mm ² ×0.8mm) | | 65 | | °C / W |

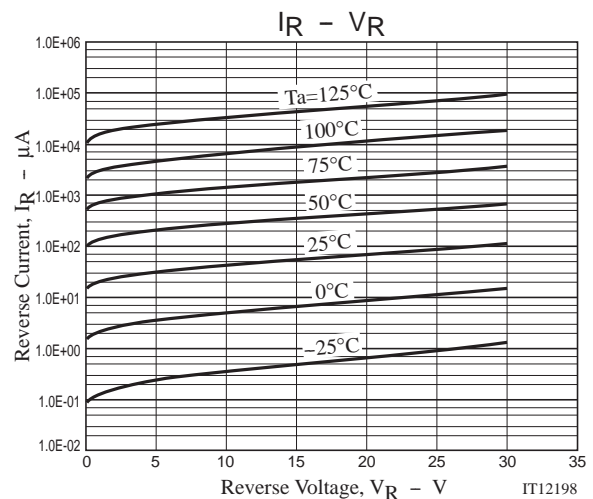
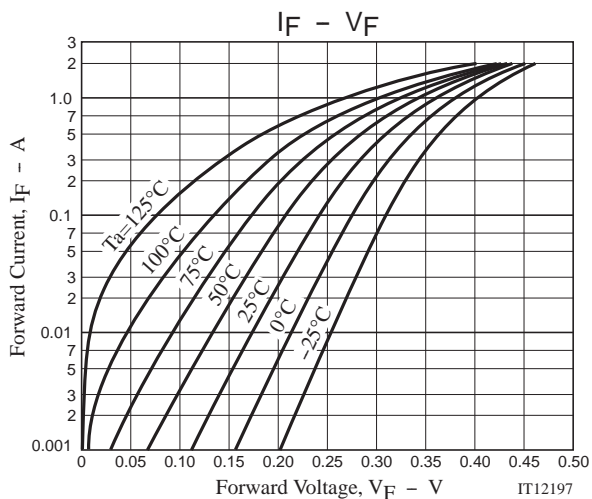
*: The absolute maximum ratings and electrical characteristics refer to those between Terminal 1 and Terminal 7 (or 8), and between Terminal 3 and Terminal 5 (or 6).

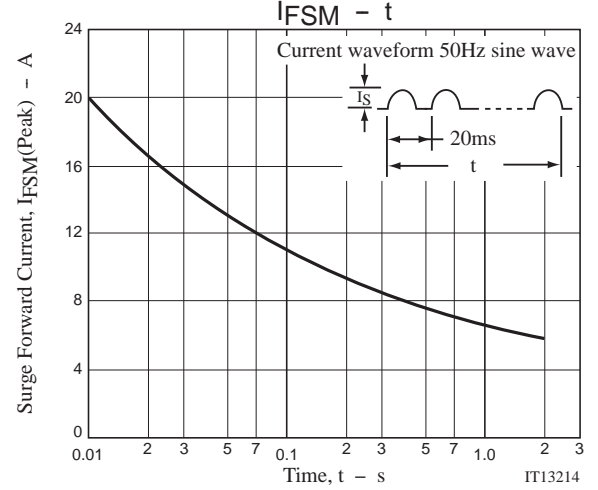
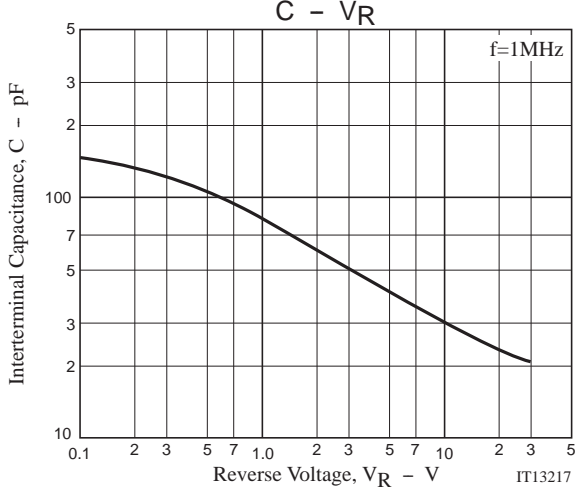
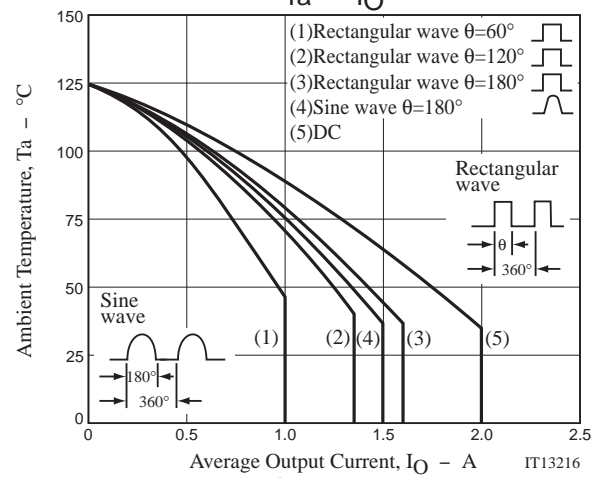
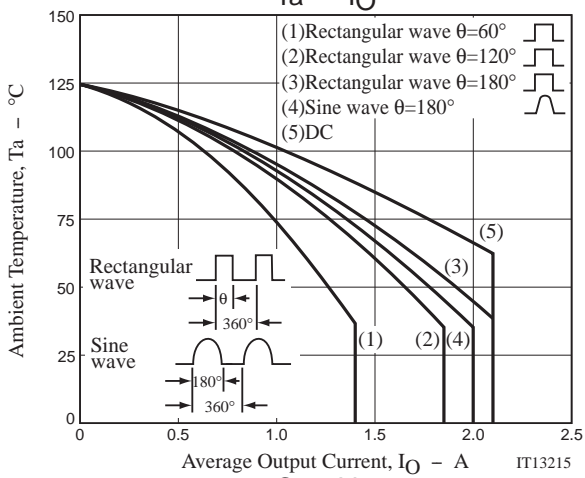
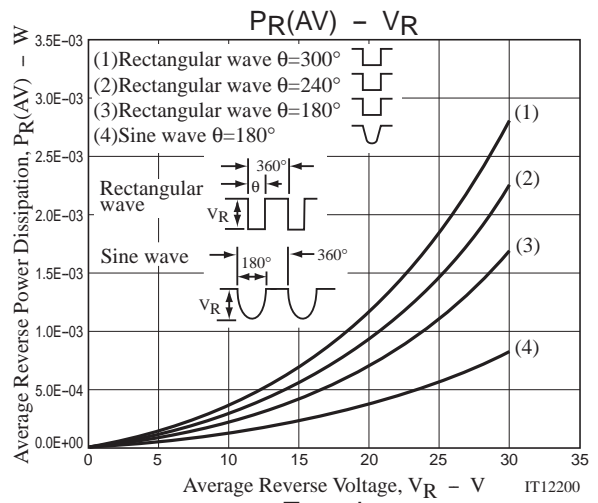
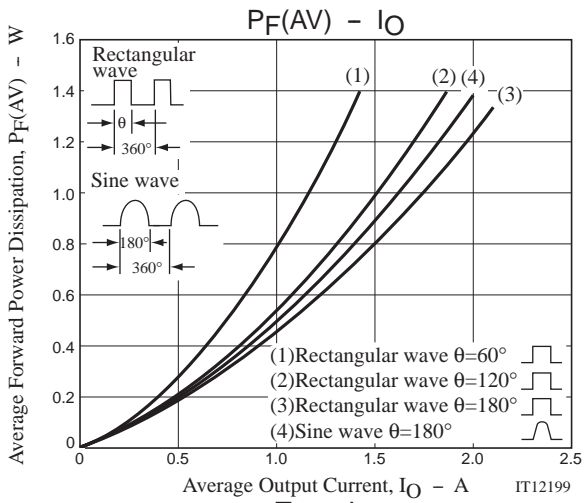
t_{rr} Test Circuit



Ordering Information

| Device | Package | Shipping | memo |
|-------------|---------|----------------|---------|
| SBS818-TL-E | EMH8 | 3,000pcs./reel | Pb Free |





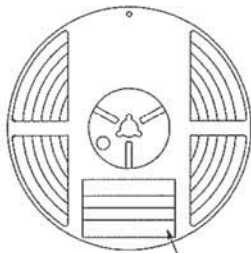
Embossed Taping Specification

SBS818-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) |
| EMH8 | MCP4 | 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 |

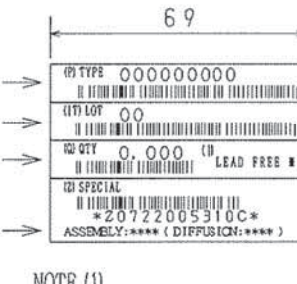
Packing method



Reel label

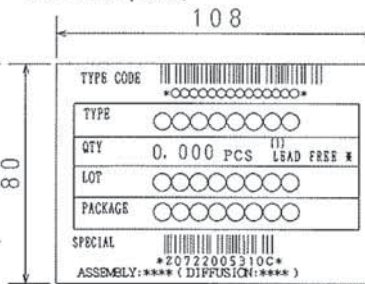
Type No. →
LOT No. →
Quantity →
Origin →

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.



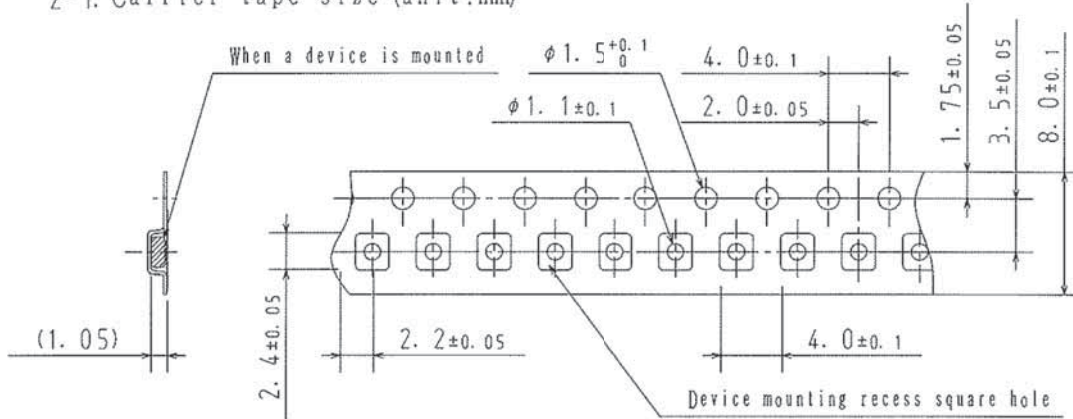
NOTE (1)

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

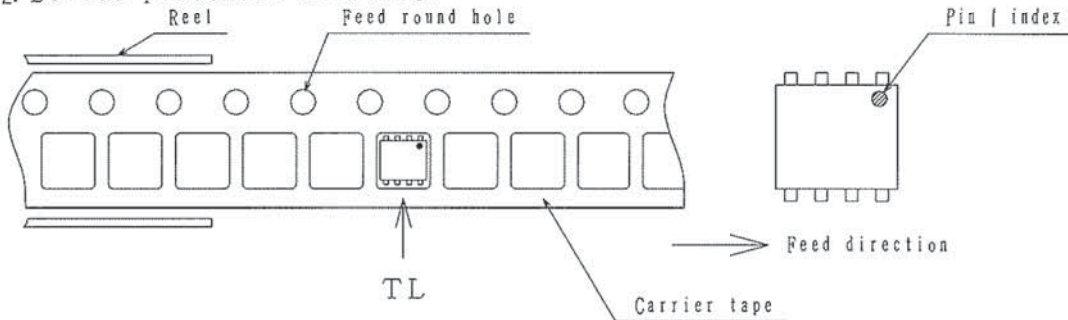
| Label | JEITA Phase |
|-------------|----------------|
| LEAD FREE 3 | JEITA Phase 3A |
| LEAD FREE 4 | JEITA Phase 3 |

2. Taping configuration

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



2-2. Device placement direction

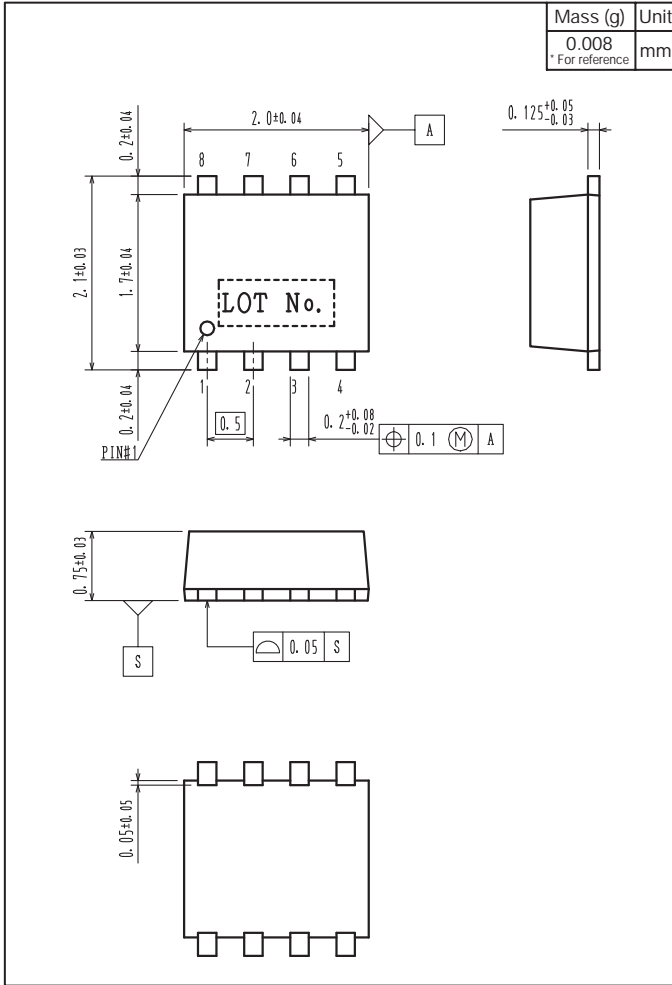


Those with pin | index on the feed hole side.....TL

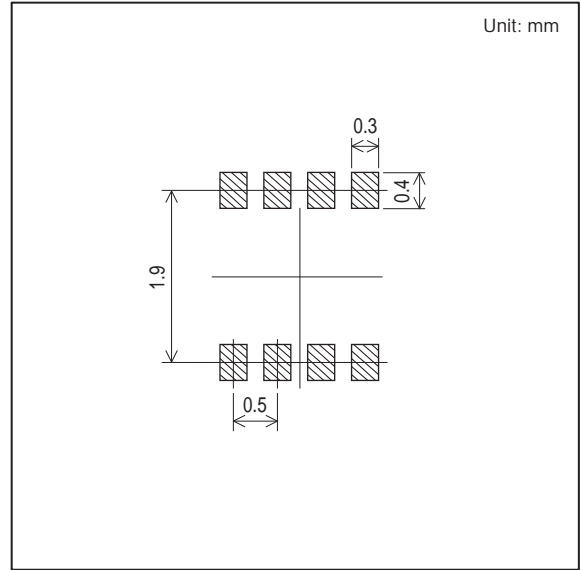
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Outline Drawing

SBS818-TL-E



Land Pattern Example



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