



# SBS818

## Schottky Barrier Diode

30V, 2A, Low VF, Non-Monolithic Dual EMH8 Common Cathode

ON Semiconductor®

<http://onsemi.com>

### 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)

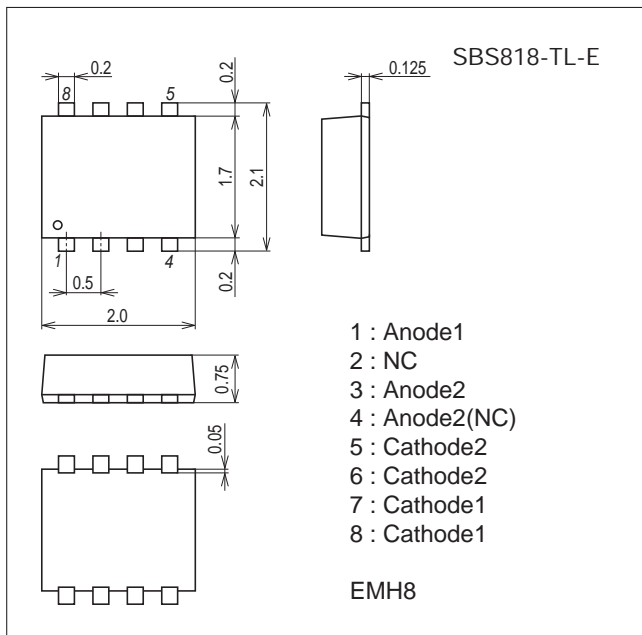
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$		30	V
Nonrepetitive Peak Reverse Surge Voltage	$V_{RSM}$		30	V
Average Output Current	$I_O$	When mounted on ceramic substrate (900mm <sup>2</sup> ×0.8mm)	2.0	A
		When mounted on glass epoxy substrate (0.96mm <sup>2</sup> ×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

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)

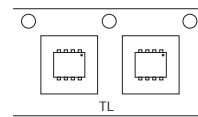
7045-004



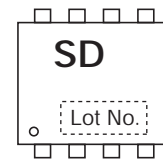
### Product & Package Information

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

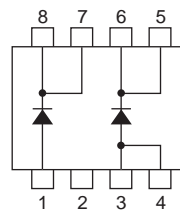
### Packing Type : TL



### 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.

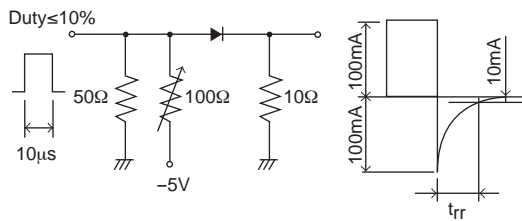
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## Electrical Characteristics at Ta=25°C (Value per element)

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

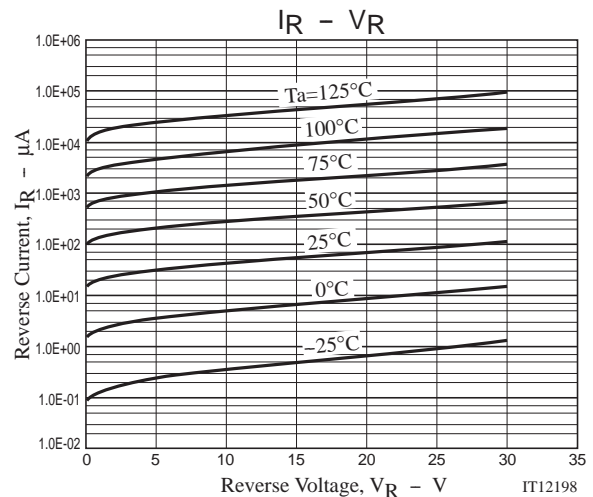
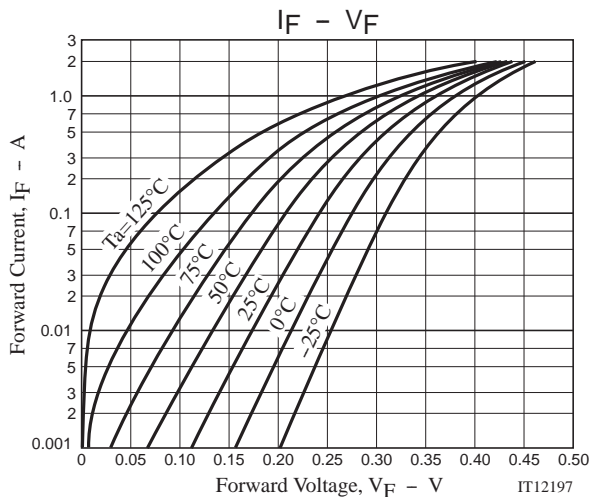
\*: The absolute maximum ratings and electrical characteristics refer to those between Terminal 1 and Terminal 7 (or 8), and between Terminal 3 and Terminal 5 (or 6).

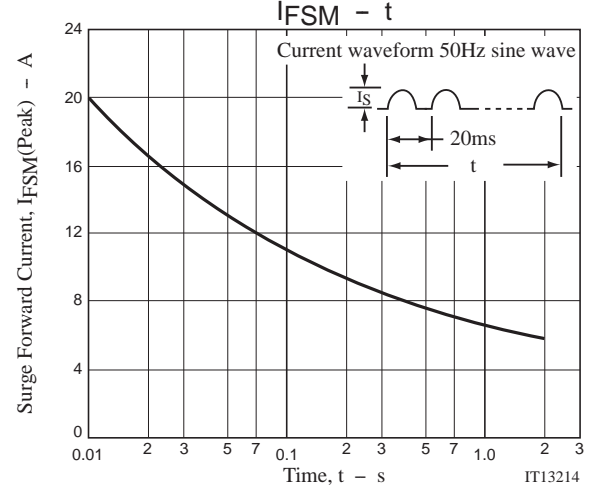
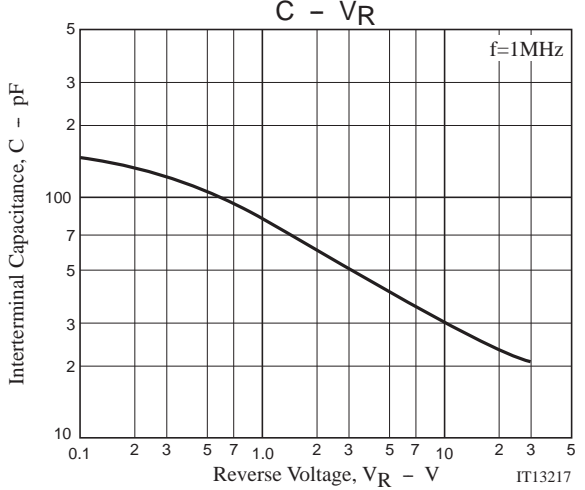
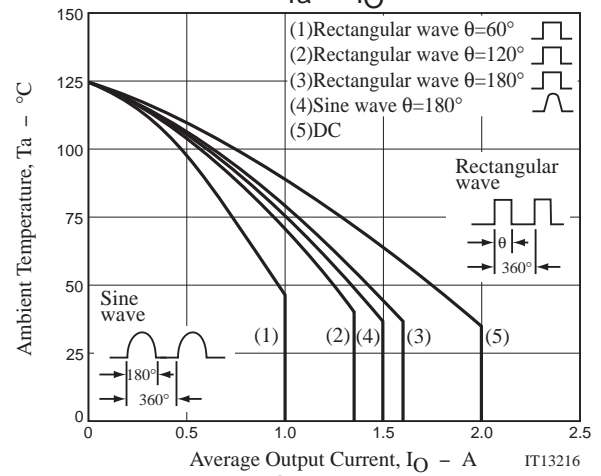
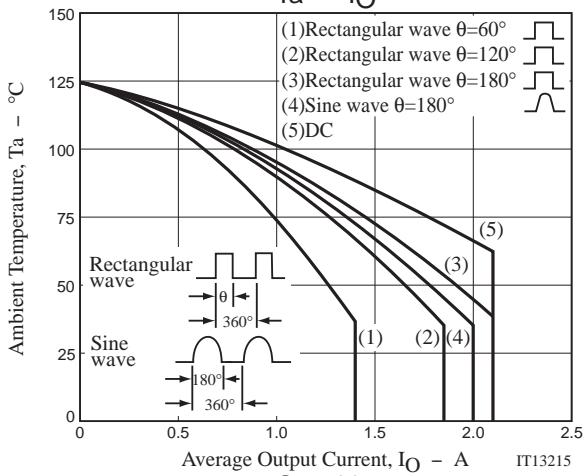
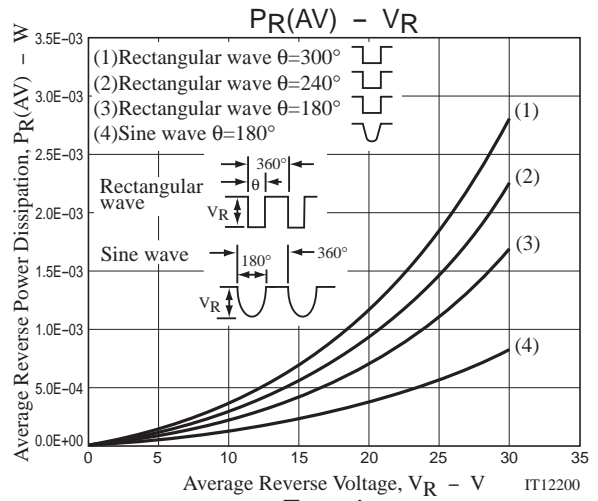
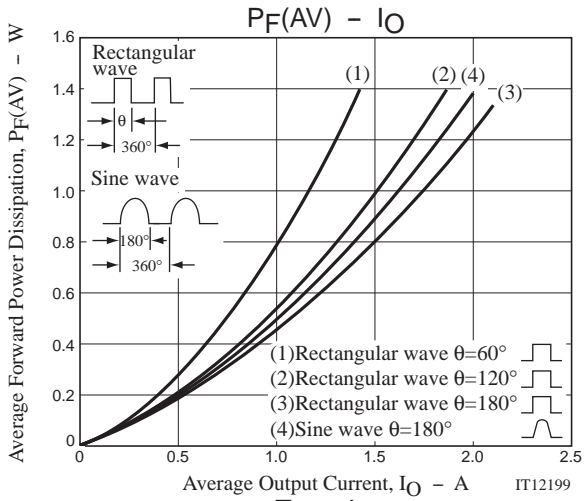
### t<sub>rr</sub> Test Circuit



### Ordering Information

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





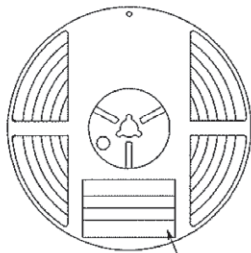
Embossed Taping Specification

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

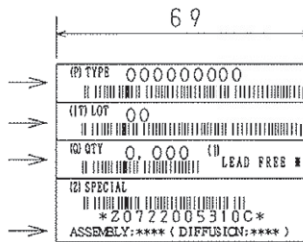
Packing method



Type No.  
LOT No.  
Quantity  
Origin

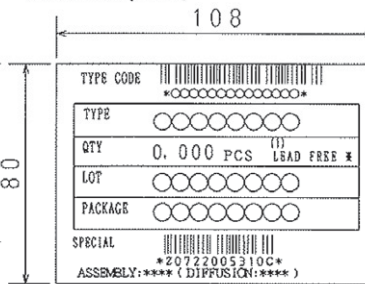
Reel label

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.



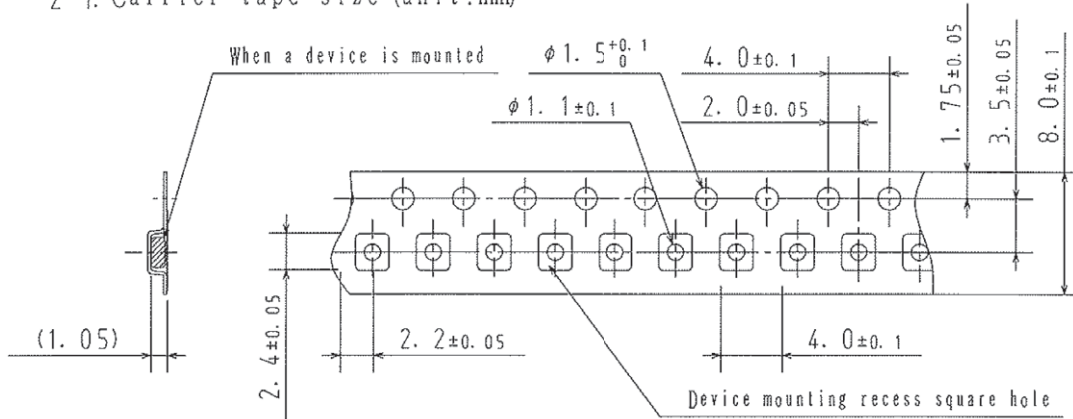
NOTE (1)

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

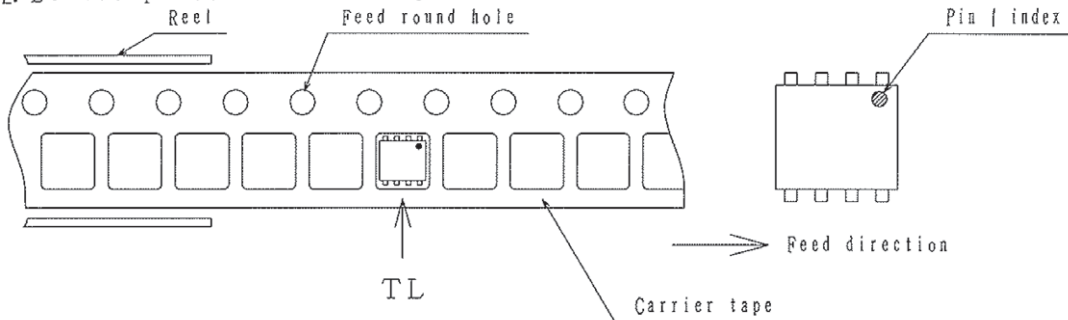
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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



2-2. Device placement direction

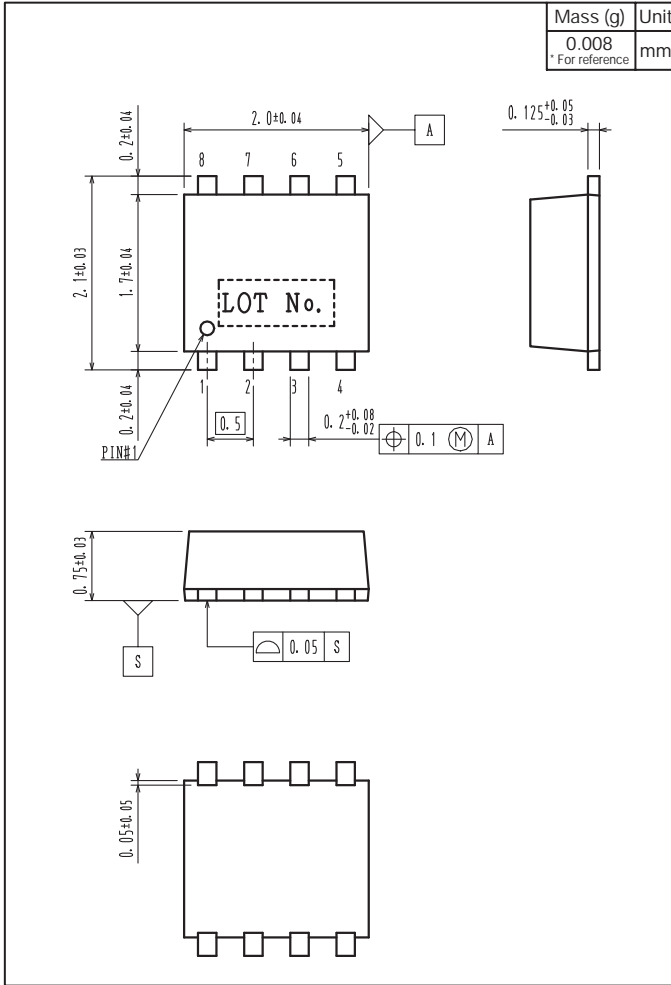


Those with pin | index on the feed hole side.....TL

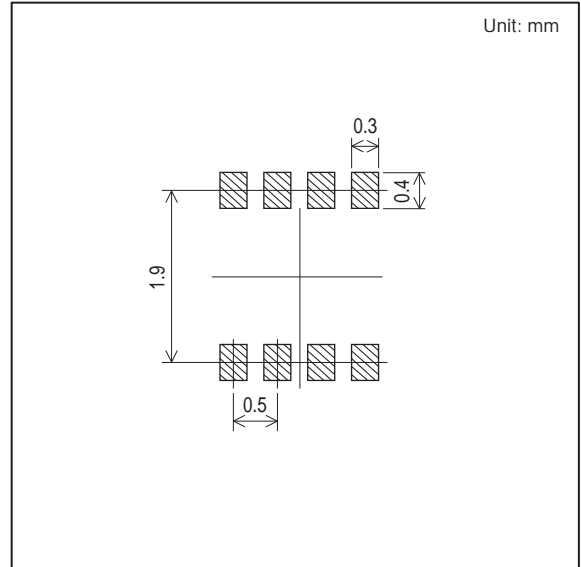
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## Outline Drawing

SBS818-TL-E



## Land Pattern Example



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