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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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# SBE818

## Schottky Barrier Diode

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

ON Semiconductor®

<http://onsemi.com>

### Applications

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

### Features

- Composite type device with 2 low  $I_R$  SBD housed in one package, facilitating high density mounting
- Small switching noise
- Low forward voltage ( $I_F=2.0A$ ,  $V_F \text{ max}=0.62V$ )
- Low reverse current ( $V_R=15V$ ,  $I_R \text{ max}=7.5\mu A$ )
- 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, Rectangular wave 180°C	2.0	A
		When mounted on glass epoxy substrate	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

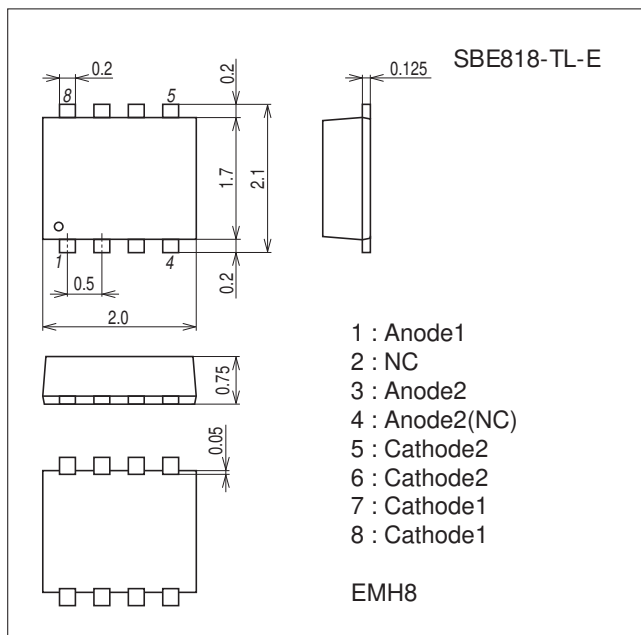
\*: The absolute maximum ratings and electrical characteristics refer to those between Terminal 1 and Terminal 7 (or 8), and between Terminal 3 and Terminal 5 (or 6)

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)

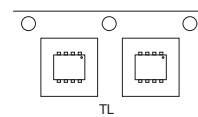
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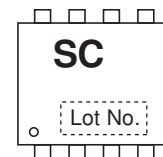
### Product & Package Information

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

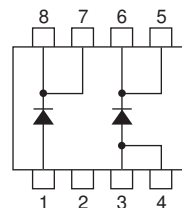
### Packing Type : TL



### Marking



### Electrical Connection



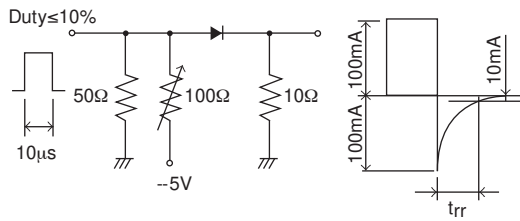
\*: Terminal 4 is used for the purposes such as test. Although it is connected to Anode 2, please handle it as NC Terminal.

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

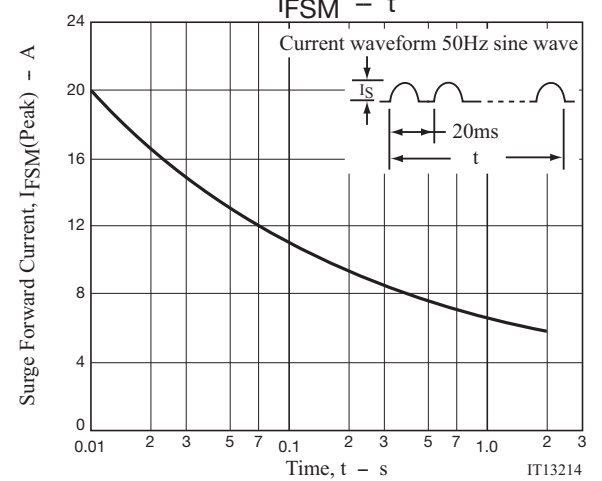
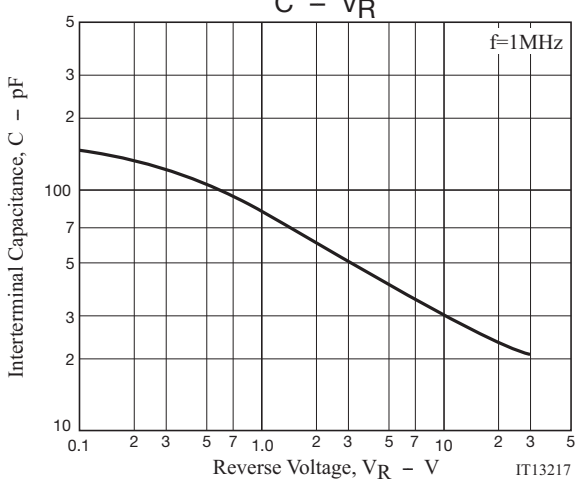
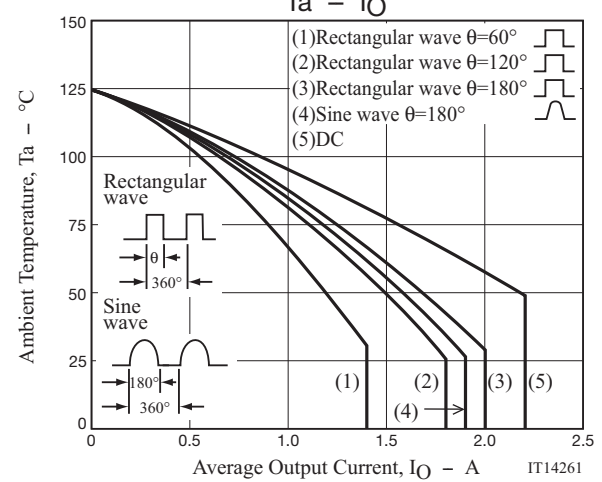
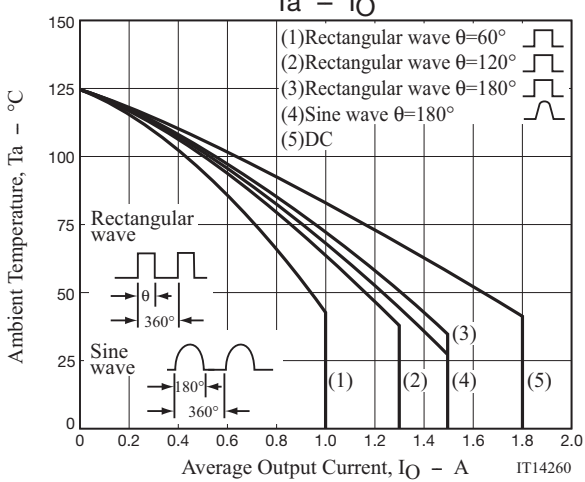
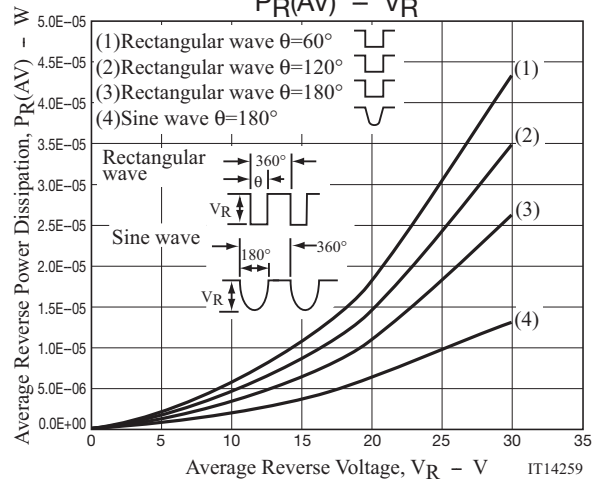
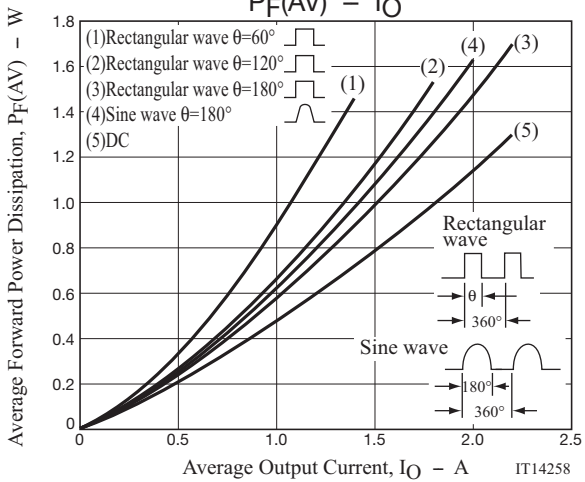
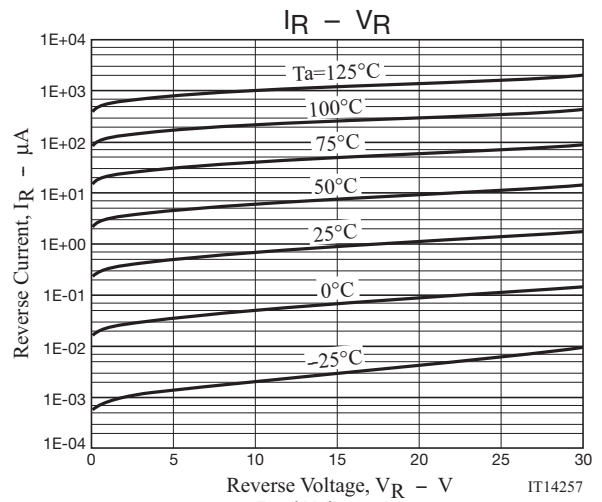
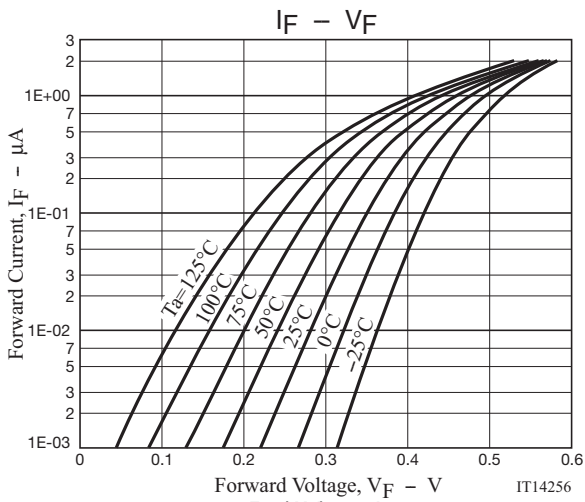
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V <sub>R</sub>	I <sub>R</sub> =1mA	30			V
Forward Voltage	V <sub>F1</sub>	I <sub>F</sub> =1.0A		0.48	0.53	V
	V <sub>F2</sub>	I <sub>F</sub> =1.5A		0.53	0.58	V
	V <sub>F3</sub>	I <sub>F</sub> =2.0A		0.57	0.62	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =15V			7.5	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	Rth(j-a)1	When mounted in Cu-foiled area of 0.96mm <sup>2</sup> ×0.03mm on glass epoxy substrate		100		°C / W
	Rth(j-a)2	When mounted on ceramic substrate (900mm <sup>2</sup> ×0.8mm)		65		°C / W

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



### Ordering Information

Device	Package	Shipping	memo
SBE818-TL-E	EMH8	3,000pcs./reel	Pb Free



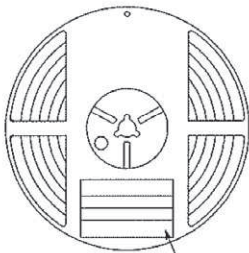
Embossed Taping Specification

SBE818-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

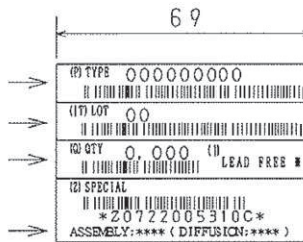
Packing method



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

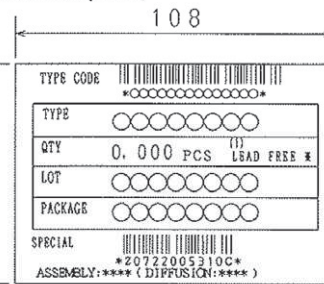
Reel label

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.



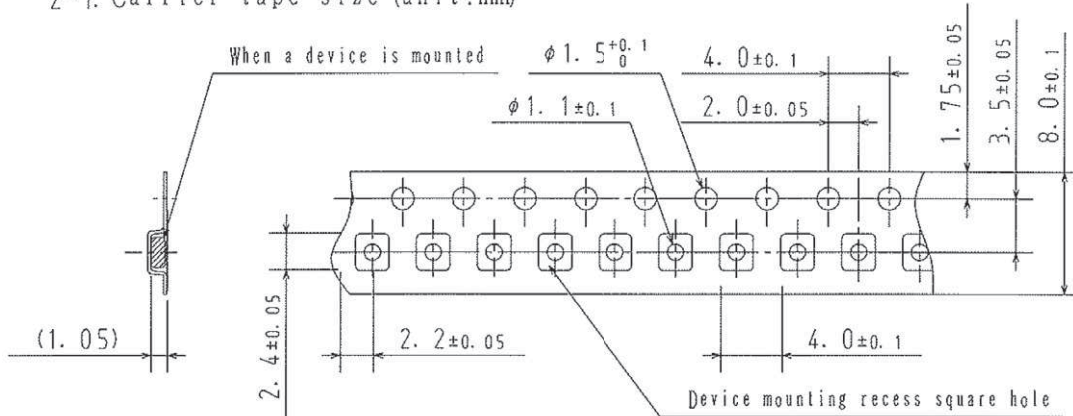
NOTE (1)

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

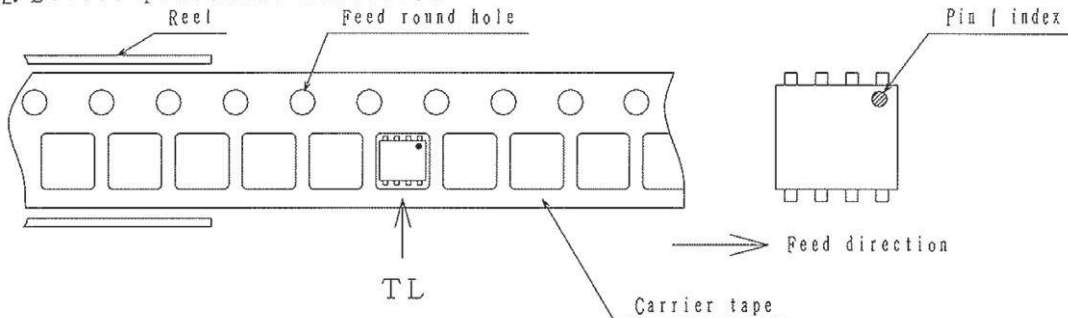
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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



2-2. Device placement direction

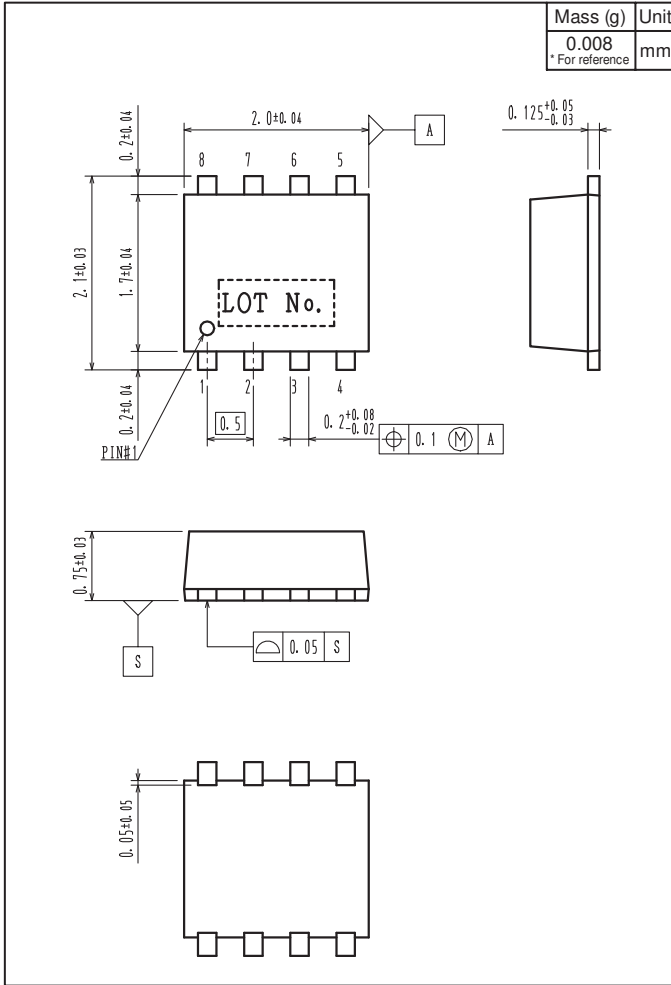


Those with pin | index on the feed hole side.....TL

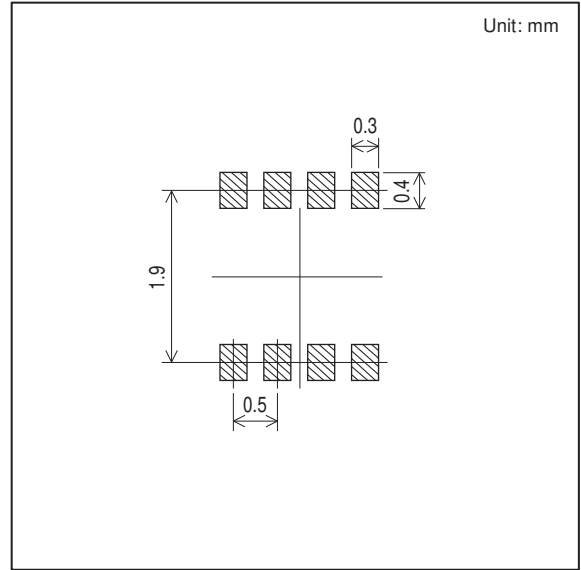
# SBE818

## Outline Drawing

SBE818-TL-E



## Land Pattern Example



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