



SANYO Semiconductors

# DATA SHEET

An ON Semiconductor Company

## SBS817 — Low VF Schottky Barrier Diode 15V, 2.0A Rectifier

### Applications

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

### Features

- Low switching noise
- Low forward voltage ( $I_F=2.0A$ ,  $V_F \text{ max}=0.46V$ )
- Ultrasmall package permitting applied sets to be small and slim (Mounting height 0.75mm)

### Specifications

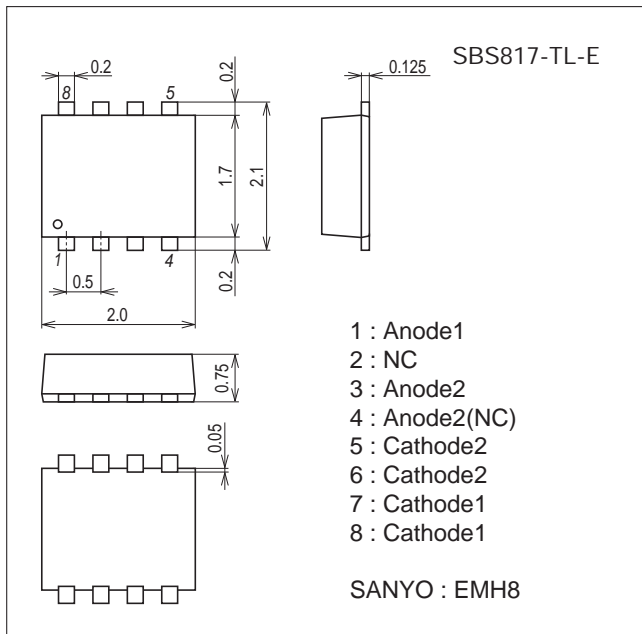
Absolute Maximum Ratings at  $T_a=25^\circ C$  (Value per element)

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$		15	V
Nonrepetitive Peak Reverse Surge Voltage	$V_{RSM}$		15	V
Average Output Current	$I_O$		2.0	A
Surge Forward Current	$I_{FSM}$	50Hz sine wave, 1 cycle	20	A
Junction Temperature	$T_j$		-55 to +125	$^\circ C$
Storage Temperature	$T_{stg}$		-55 to +125	$^\circ C$

### Package Dimensions

unit : mm (typ)

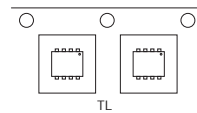
7045-004



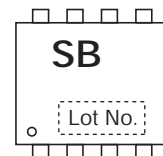
### Product & Package Information

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

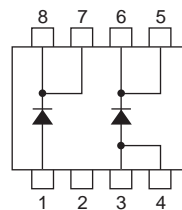
### Packing Type : TL



### Marking



### Electrical Connection



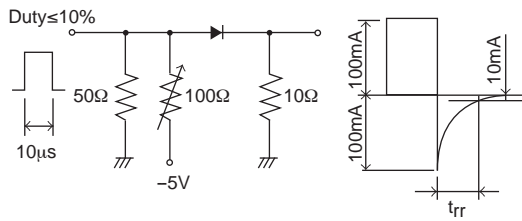
# SBS817

## 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	15			V
Forward Voltage	V <sub>F1</sub>	I <sub>F</sub> =1.0A		0.33	0.39	V
	V <sub>F2</sub>	I <sub>F</sub> =2.0A		0.39	0.46	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =7.5V			300	μA
Interterminal Capacitance	C	V <sub>R</sub> =10V, f=1MHz		35		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)</sub>	When mounted on ceramic substrate (900mm <sup>2</sup> ×0.8mm)		65		°C / W

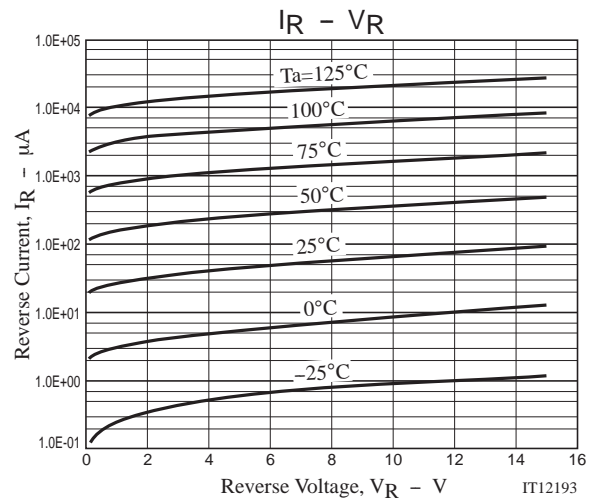
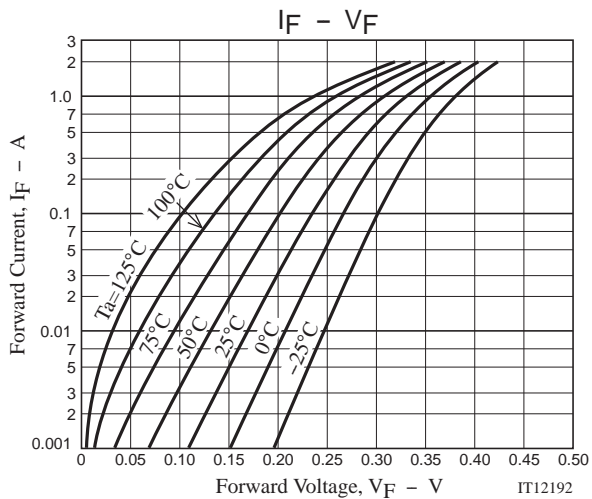
\*: The absolute maximum ratings and electrical characteristics refer to those between Terminal 1 and Terminal 7 (or 8), and between Terminal 3 and Terminal 5 (or 6).

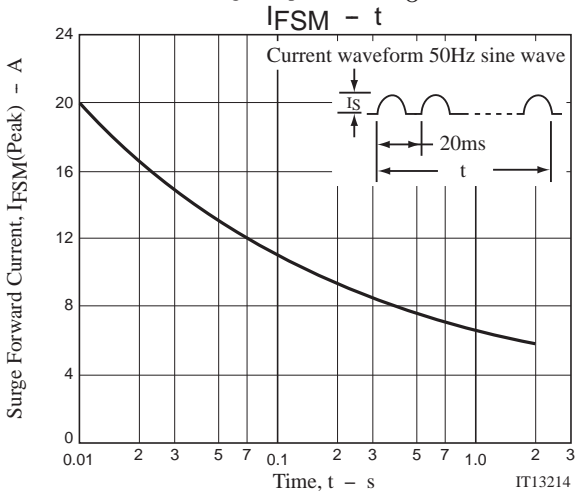
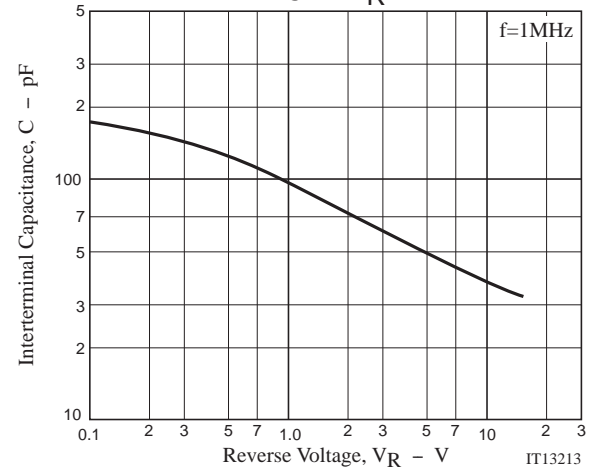
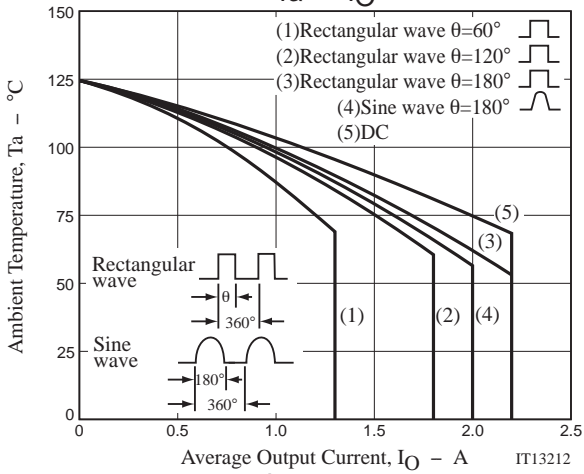
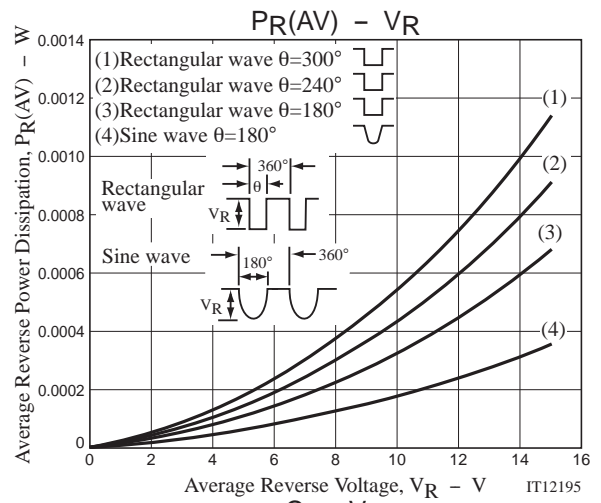
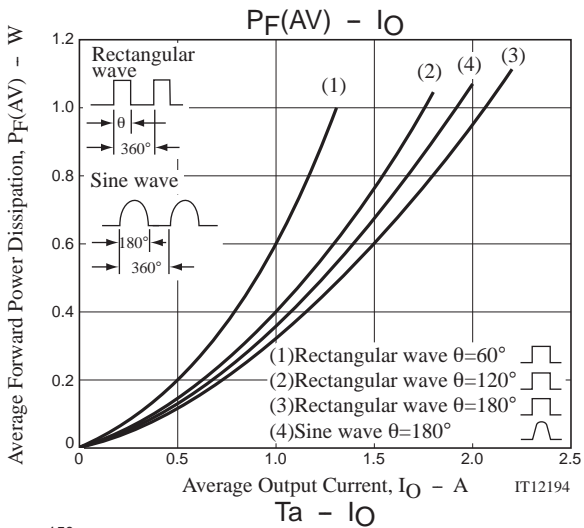
### t<sub>rr</sub> Test Circuit



### Ordering Information

Device	Package	Shipping	memo
SBS817-TL-E	EMH8	3,000pcs./reel	Pb Free





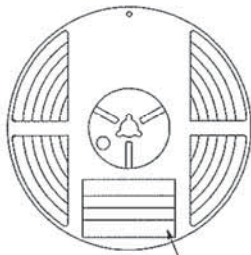
Embossed Taping Specification

SBS817-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

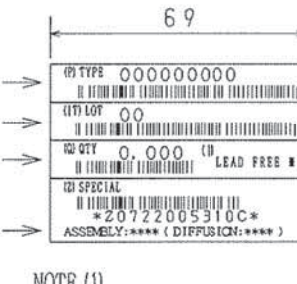
Packing method



Reel label

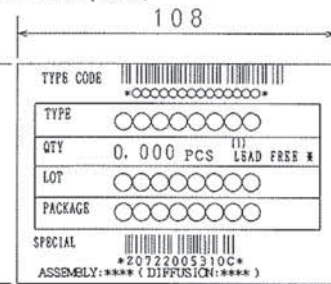
Type No. →  
 LOT No. →  
 Quantity →  
 Origin →

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.



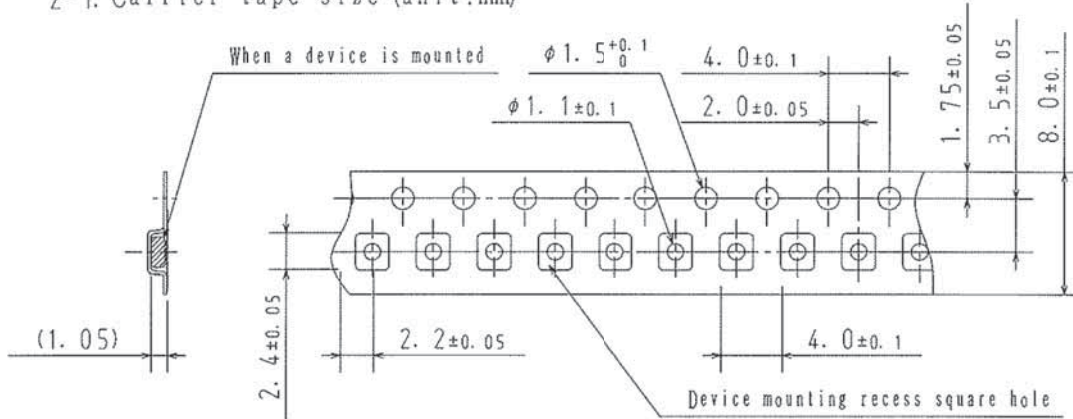
NOTE (1)

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

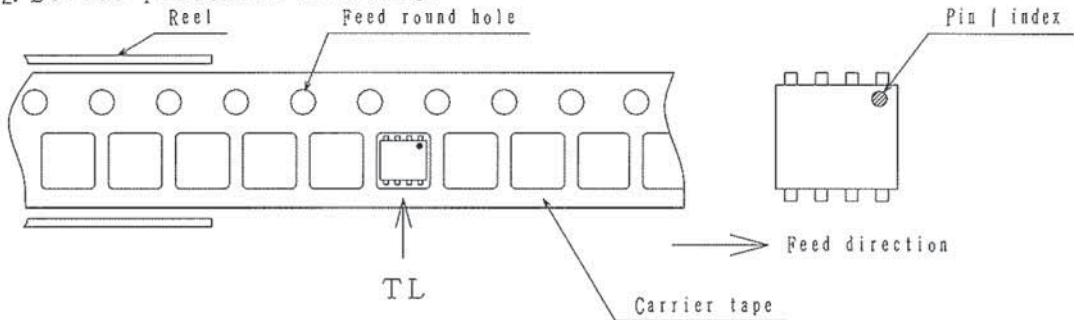
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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



2-2. Device placement direction

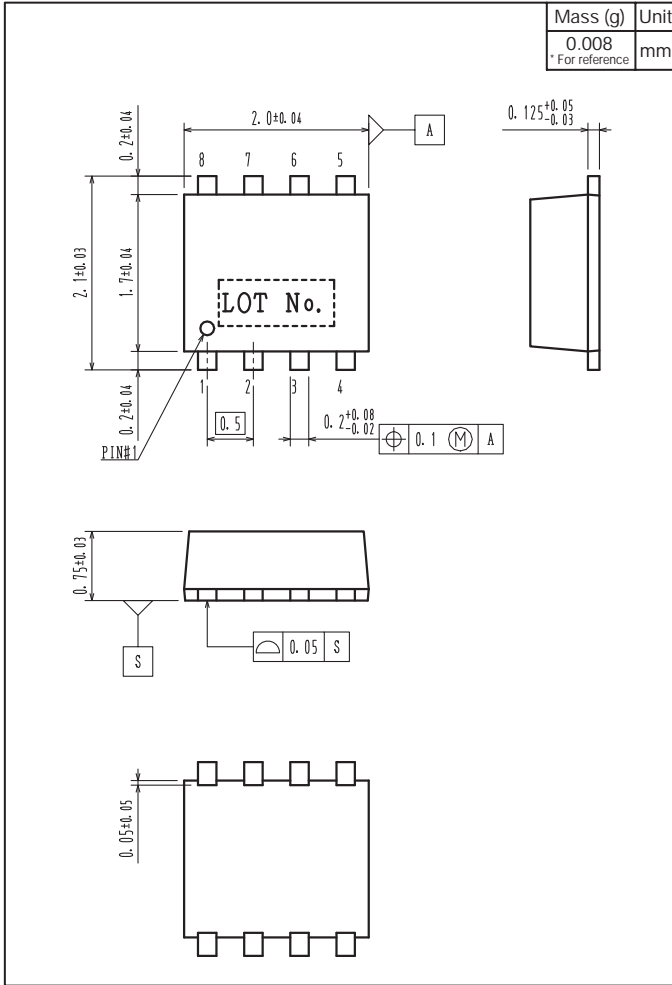


Those with pin | index on the feed hole side.....TL

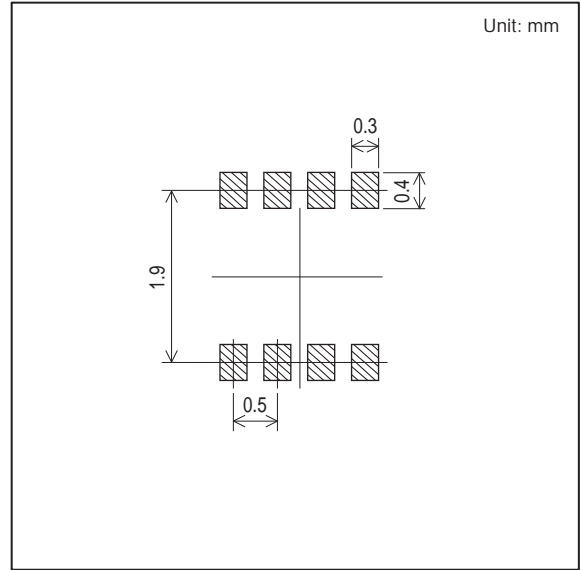
# SBS817

## Outline Drawing

SBS817-TL-E



## Land Pattern Example



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