



ON Semiconductor®

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SBS817

Schottky Barrier Diode

15V, 2A, Low V_F, Non-Monolithic Dual EMH8 Common Cathode

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 Ta=25°C (Value per element)

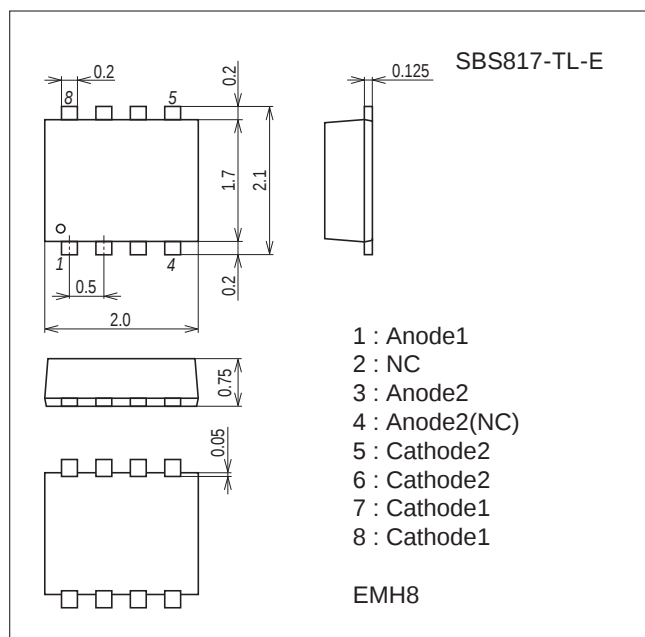
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V _{RRM}		15	V
Nonrepetitive Peak Reverse Surge Voltage	V _{RSM}		15	V
Average Output Current	I _O		2.0	A
Surge Forward Current	I _{FSM}	50Hz sine wave, 1 cycle	20	A
Junction Temperature	T _J		-55 to +125	°C
Storage Temperature	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)

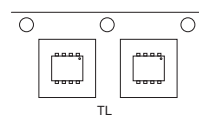
7045-004



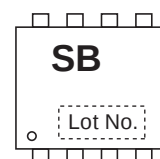
Product & Package Information

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

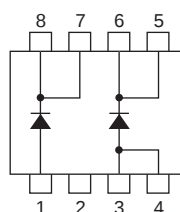
Packing Type : TL



Marking



Electrical Connection

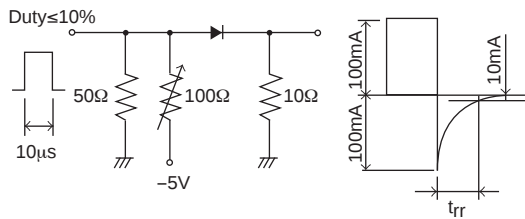


Electrical Characteristics at Ta=25°C (Value per element)

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=1\text{mA}$	15			V
Forward Voltage	V_{F1}	$I_F=1.0\text{A}$		0.33	0.39	V
	V_{F2}	$I_F=2.0\text{A}$		0.39	0.46	V
Reverse Current	I_R	$V_R=7.5\text{V}$			300	μA
Interterminal Capacitance	C	$V_R=10\text{V}$, f-1MHz		35		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100\text{mA}$, See specified Test Circuit.			10	ns
Thermal Resistance	$R_{th(j-a)}$	When mounted on ceramic substrate (900mm ² ×0.8mm)		65		°C / W

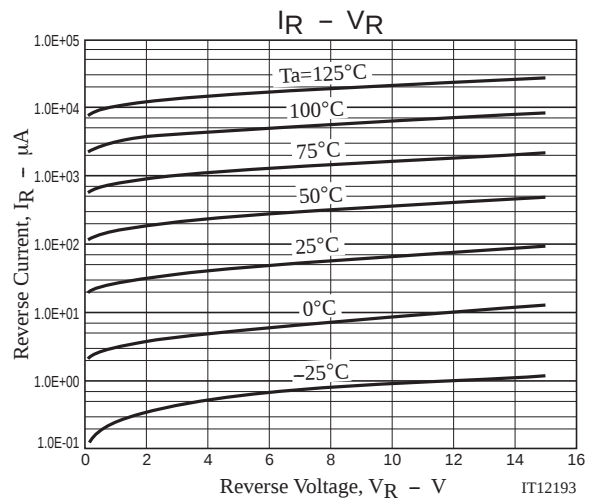
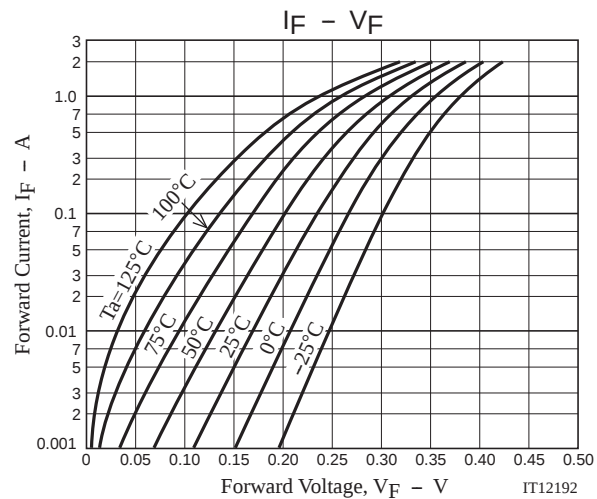
*: The absolute maximum ratings and electrical characteristics refer to those between Terminal 1 and Terminal 7 (or 8), and between Terminal 3 and Terminal 5 (or 6).

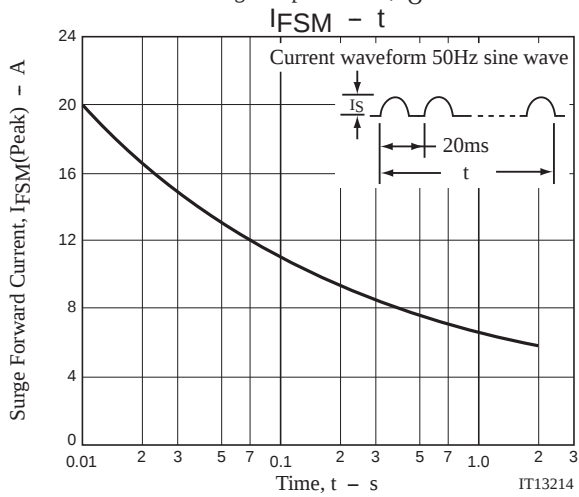
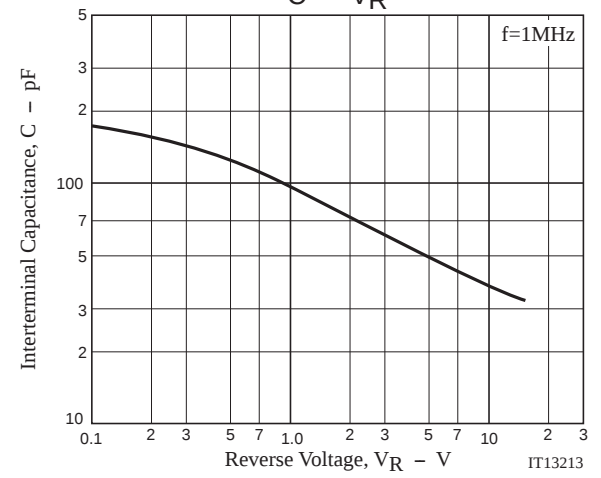
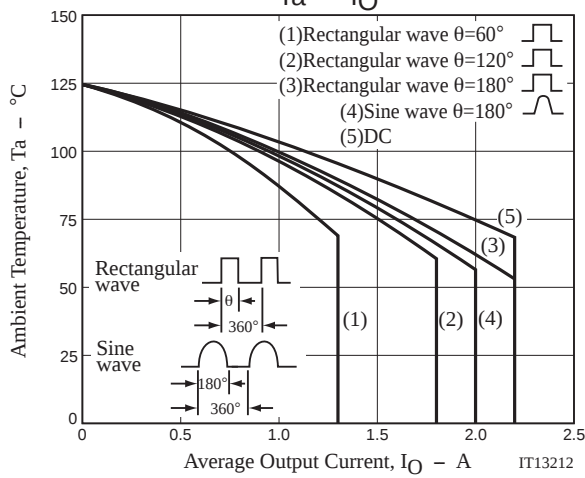
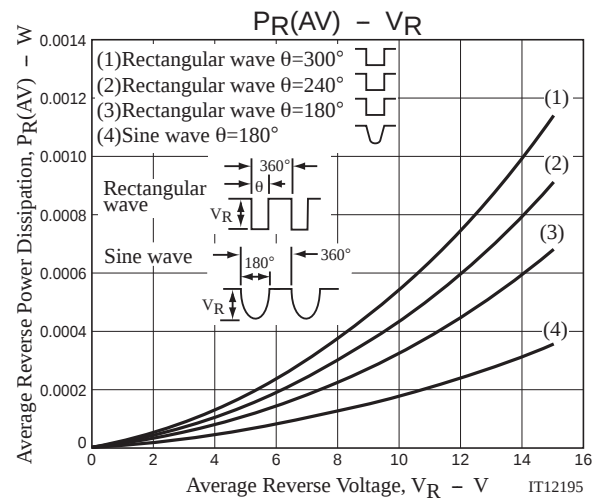
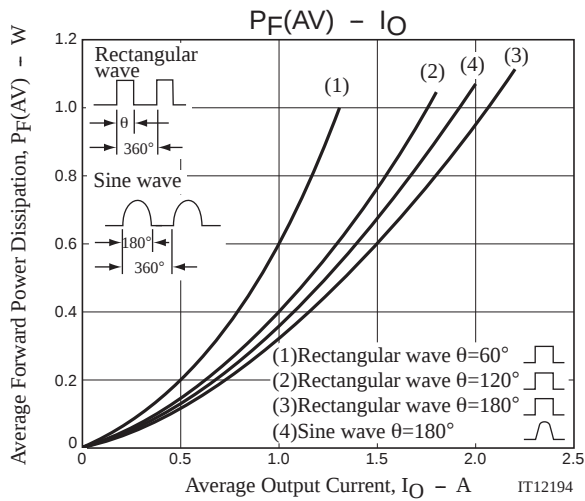
t_{rr} Test Circuit



Ordering Information

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





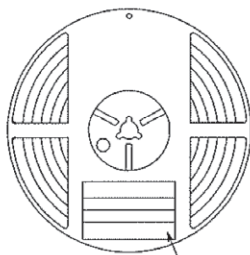
Embossed Taping Specification

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)

69	
(0) TYPE 000000000	
(1) LOT 00	
(2) QTY 0,000 (3) LEAD FREE *	
(4) SPECIAL	
20722005310C	
ASSEMBLY:**** (DIFFUSION:****)	

Outer box label

It is a label at the time of factory shipments.
 The form of a label may change in physical
 distribution process.

108	
TYPE CODE	
TYPE	
QTY 0,000 PCS (1) LEAD FREE *	
LOT	
PACKAGE	
SPECIAL	
20722005310C	
ASSEMBLY:**** (DIFFUSION:****)	

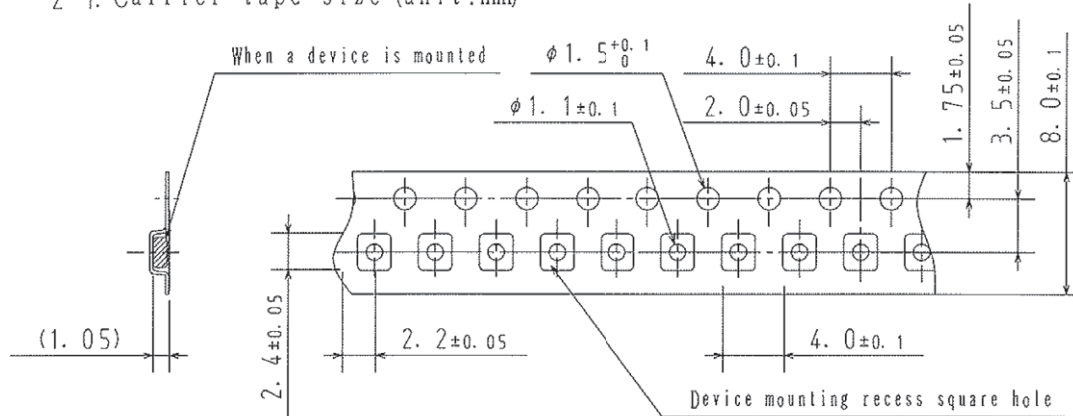
NOTE (1)

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

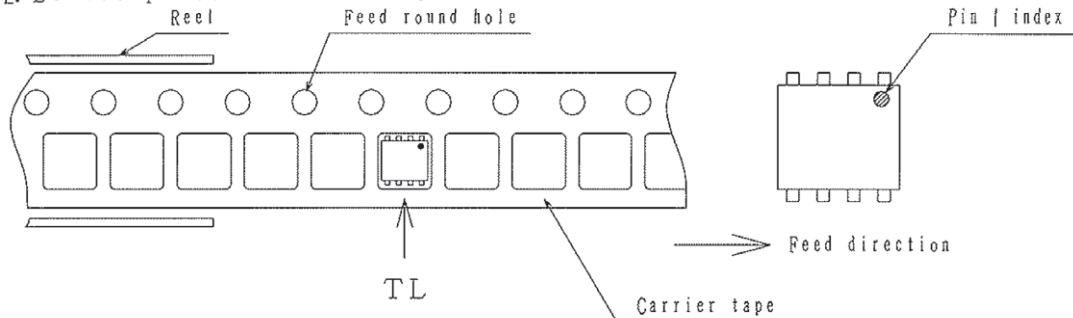
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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

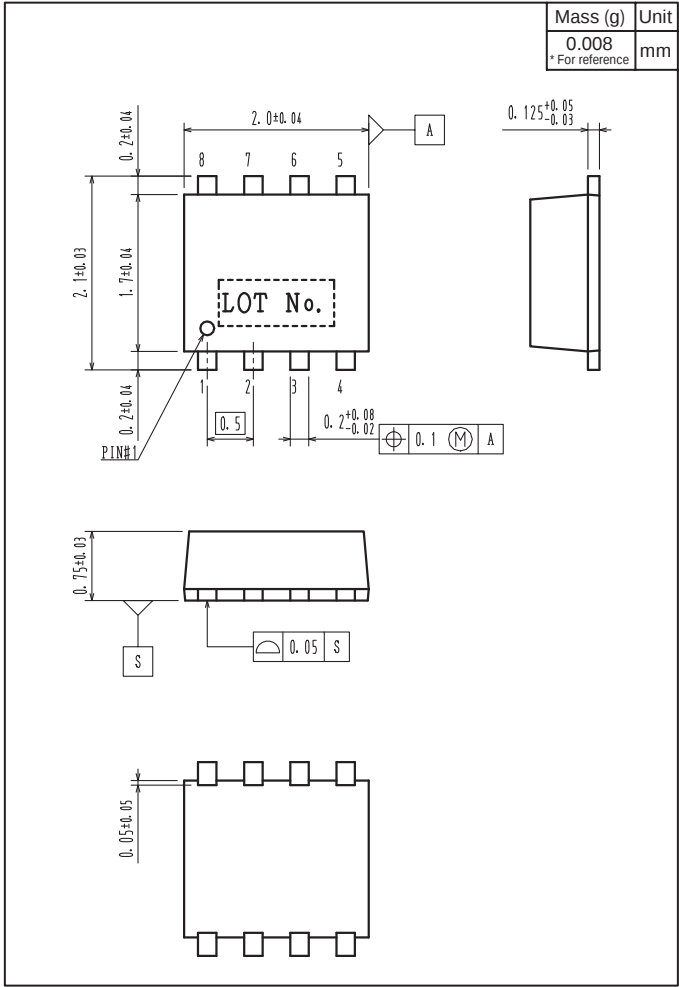


2-2. Device placement direction

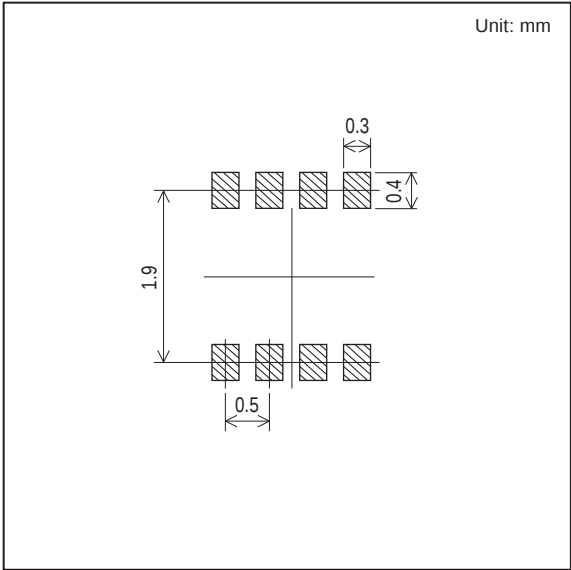


Those with pin 1 index on the feed hole side.....TL

Outline Drawing
SBS817-TL-E



Land Pattern Example



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