



SANYO Semiconductors

# DATA SHEET

An ON Semiconductor Company

## SBE805 — Silicon Schottky Barrier Diode 30V, 500mA Rectifier

### Features

- Low forward voltage ( $V_F$  max=0.55V)
- Fast reverse recovery time ( $t_{rr}$  max=10ns)
- Composite type with 2 diodes contained in the CPH package currently in use, improving the mounting efficiency greatly
- The chips incorporated are both equivalent to the SB05-03C

### Specifications

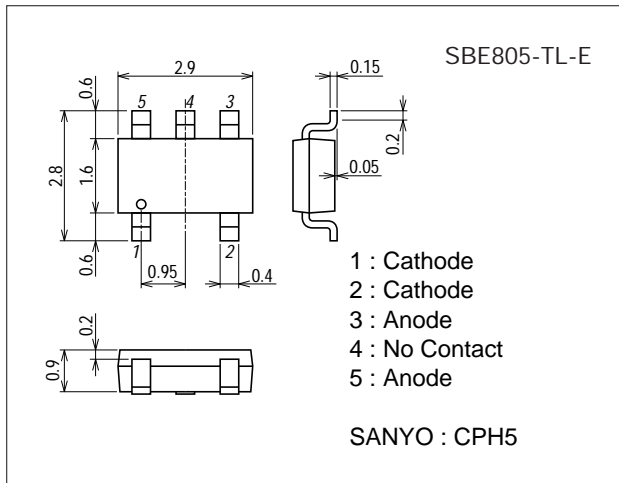
Absolute Maximum Ratings at  $T_a=25^\circ\text{C}$  (Value per element)

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$		30	V
Nonrepetitive Peak Reverse Surge Voltage	$V_{RSM}$		35	V
Average Output Current	$I_O$		500	mA
Surge Forward Current	$I_{FSM}$	50Hz sine wave, 1 cycle	5	A
Junction Temperature	$T_j$		-55 to +125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +125	$^\circ\text{C}$

### Package Dimensions

unit : mm (typ)

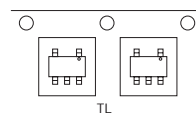
7017A-001



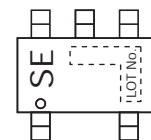
### Product & Package Information

- Package : CPH5
- JEITA, JEDEC : SC-74A, SOT-25
- Minimum Packing Quantity : 3,000 pcs./reel

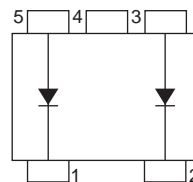
### Packing Type : TL



### Marking



### Electrical Connection

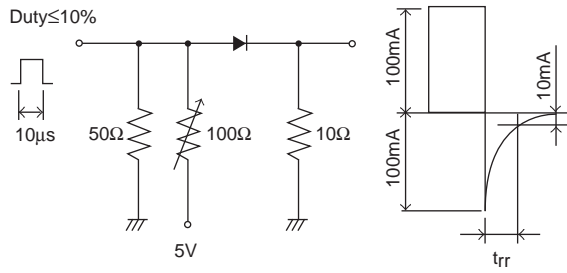


# SBE805

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

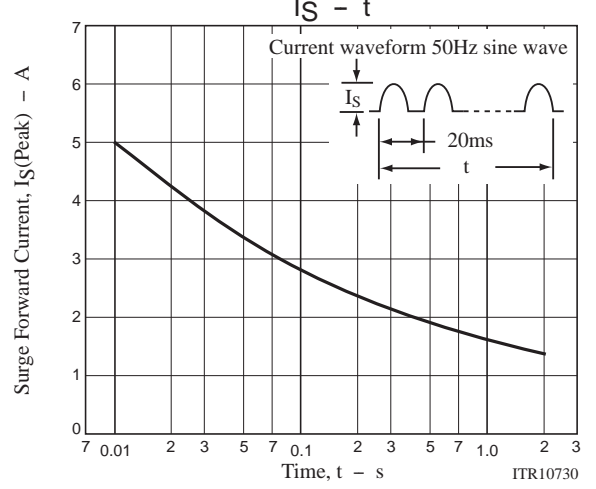
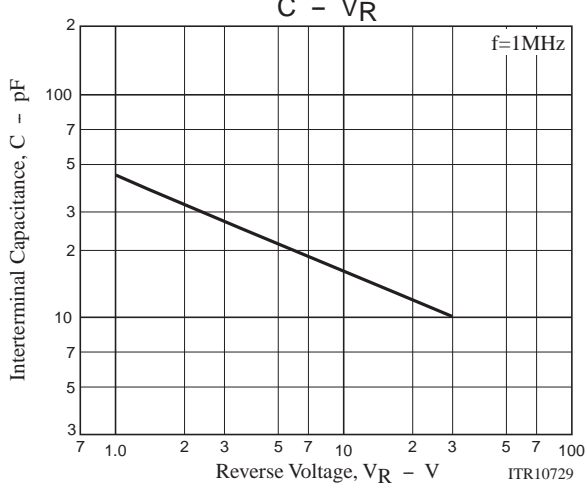
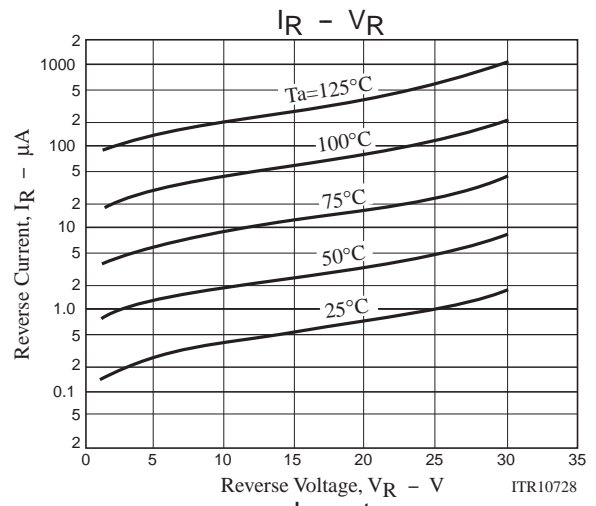
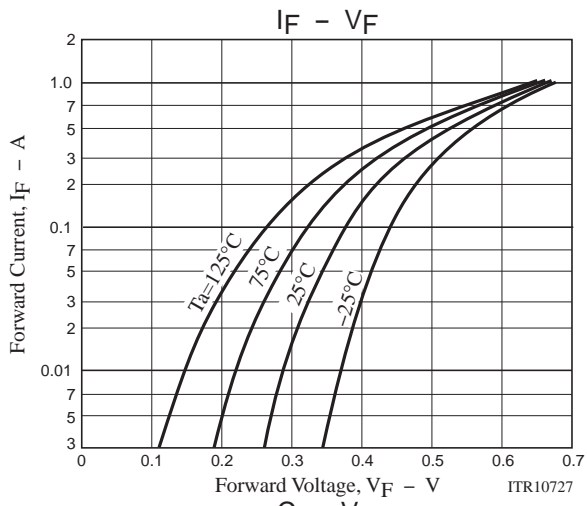
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	$V_R$	$I_R=150\mu A$	30			V
Forward Voltage	$V_F$	$I_F=500mA$			0.55	V
Reverse Current	$I_R$	$V_R=15V$			30	$\mu A$
Interterminal Capacitance	C	$V_R=10V, f=1MHz$		16		pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=100mA$ , See specified Test Circuit.			10	ns
Thermal Resistance	$R_{th(j-a)}$			300		$^{\circ}C / W$

### $t_{rr}$ Test Circuit



### Ordering Information

Device	Package	Shipping	memo
SBE805-TL-E	CPH5	3,000pcs./reel	Pb Free



Embossed Taping Specification

SBE805-TL-E

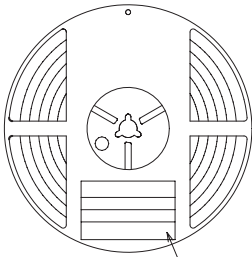
1. Packing Format

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)
CPH5	CPH6	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

Reel label, Inner box label  
(unit :mm)

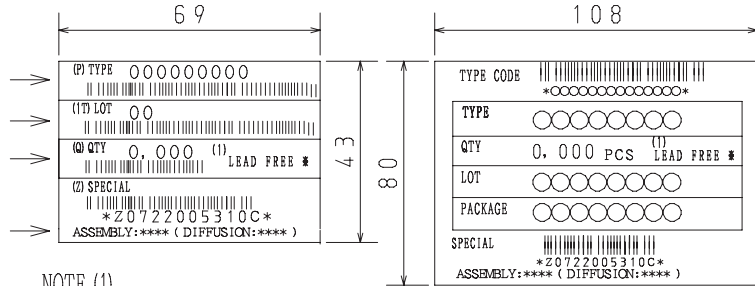
Outer box label  
It is a label at the time of factory shipments.  
The form of a label may change in physical distribution process.

Packing method



Reel label

Type No.  
LOT No.  
Quantity  
Origin



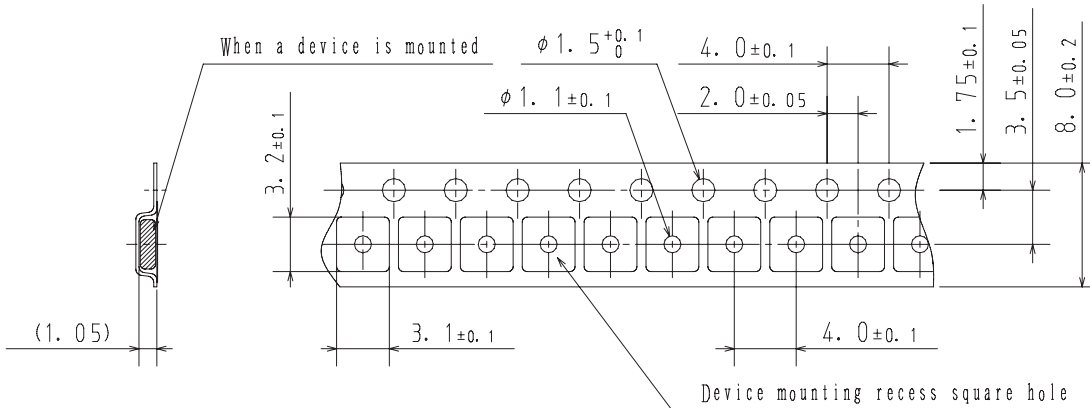
NOTE (1)

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

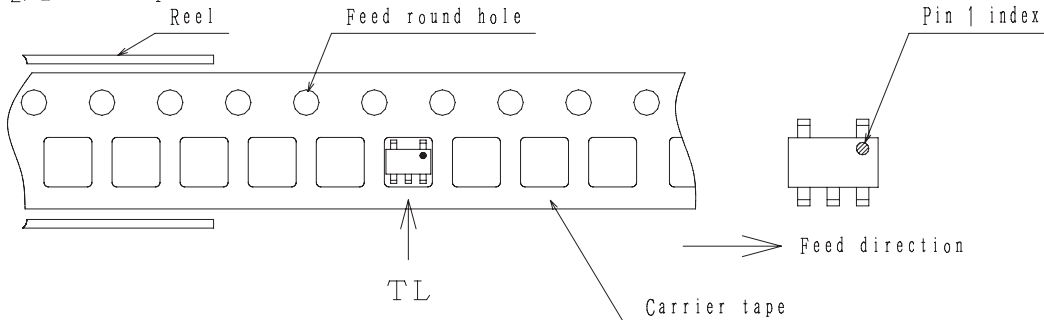
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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

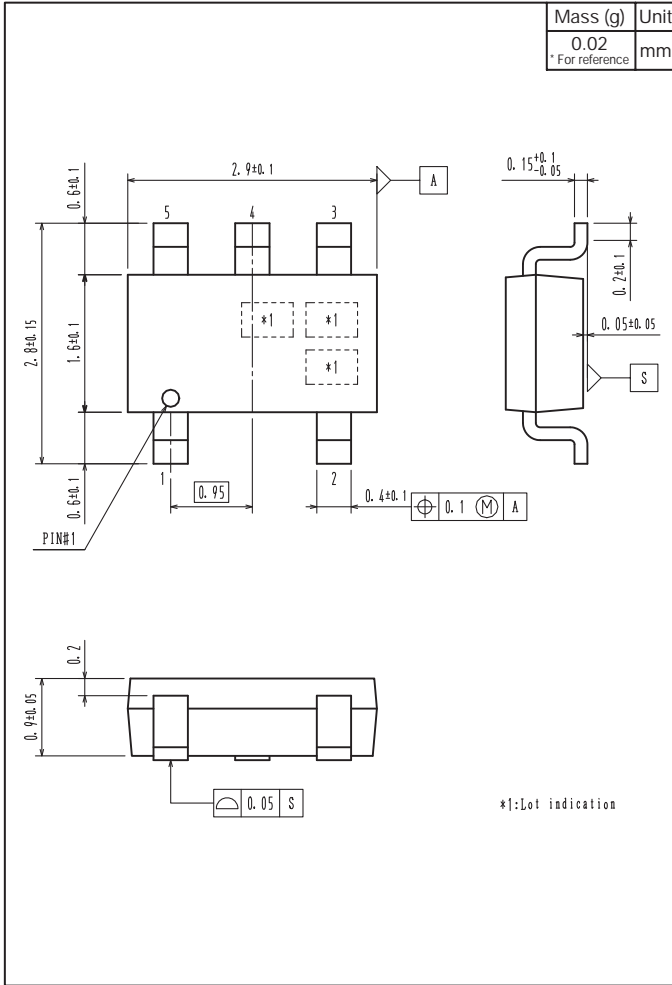


2-2. Device placement direction

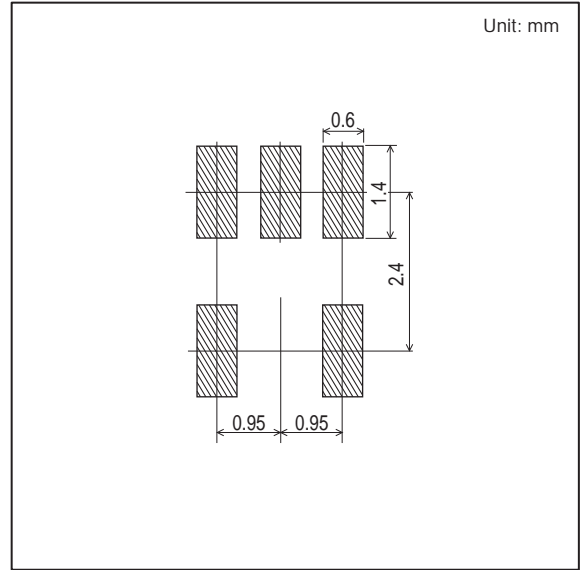


Those with pin 1 index on the feed hole side.....TL

Outline Drawing  
SBE805-TL-E



Land Pattern Example



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