Ordering number : ENA1055A

SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

SBE807 — Schottky Barrier Diode 30V, 1.0A Rectifier

Applications

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

Features

- Low switching noise
- Low reverse current (V_R=16V, I_R max=15μA)

Specifications

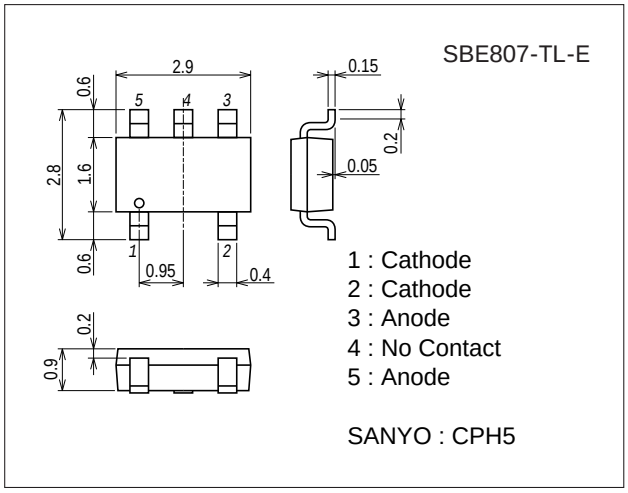
Absolute Maximum Ratings at Ta=25°C

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		1.0	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	10	A
Junction Temperature	Tj		−55 to +125	°C
Storage Temperature	Tstg		−55 to +125	°C

Package Dimensions

unit : mm (typ)

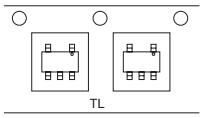
7017A-001



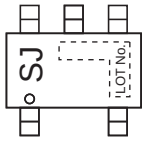
Product & Package Information

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

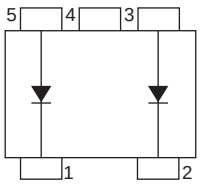
Packing Type : TL



Marking



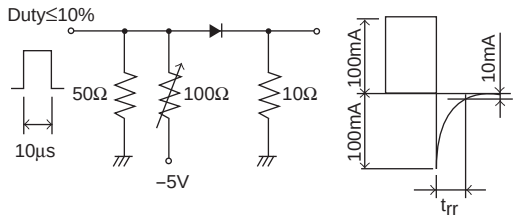
Electrical Connection



Electrical Characteristics at Ta=25°C

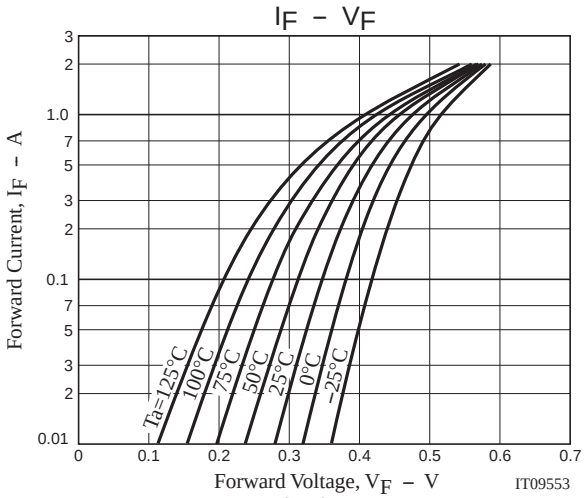
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	I_R=0.2mA	30			V
Forward Voltage	V_F1	I_F=0.7A		0.45	0.50	V
	V_F2	I_F=1.0A		0.48	0.53	V
Reverse Current	I_R	V_R=16V			15	μA
Interterminal Capacitance	C	V_R=10V, f=1MHz		27		pF
Reverse Recovery Time	t_{rr}	I_F=I_R=100mA, See specified Test Circuit.			10	ns
Thermal Resistance	Rth(j-a)	When mounted on ceramic substrate (900mm²×0.8mm)		111		°C / W

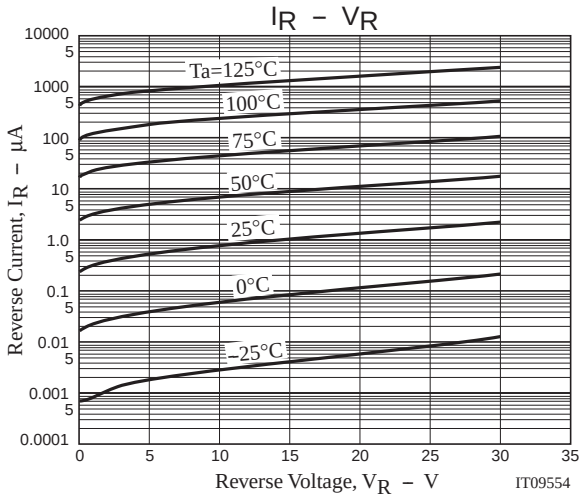
t_{rr} Test Circuit

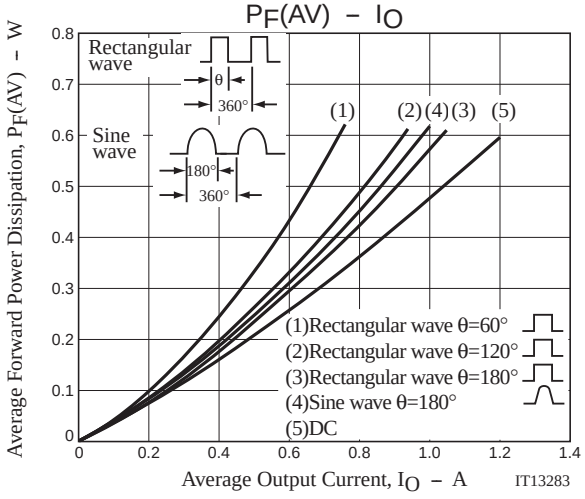


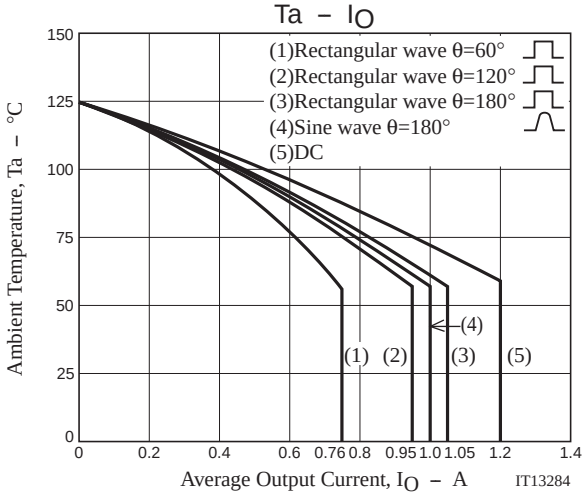
Ordering Information

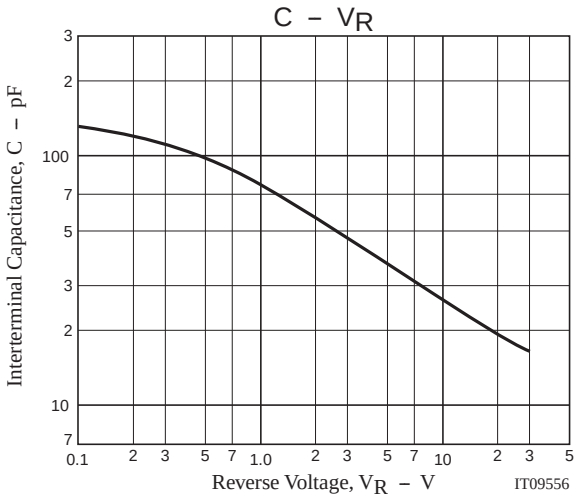
Device	Package	Shipping	memo
SBE807-TL-E	CPH5	3,000pcs./reel	Pb Free

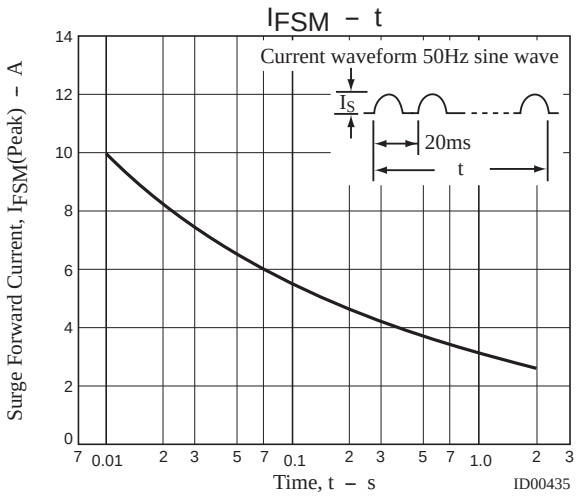









C – VR
Interterminal Capacitance, C – pF
3
2
100
7
5
3
2
10
7
0.1
2
3
5
7
1.0
2
3
5
7
10
2
3
5
Reverse Voltage, VR – V
IT09556


IFSM – t
Current waveform 50Hz sine wave
Is
20ms
t
Surge Forward Current, IFSM(Peak) – A
14
12
10
8
6
4
2
0
7
0.01
2
3
5
7
0.1
2
3
5
7
1.0
2
3
Time, t – s
ID00435

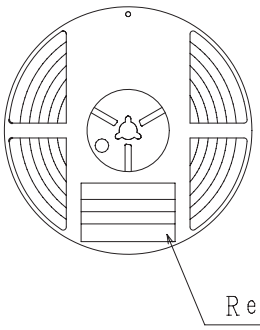
Embossed Taping Specification

SBE807-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

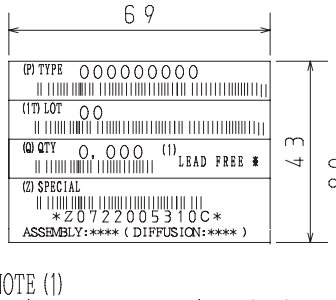
Packing method



Reel label

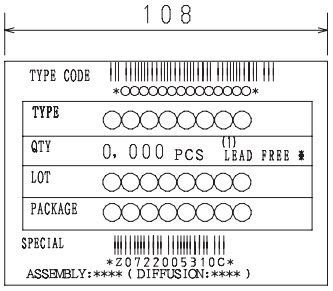
Reel label, Inner box label

(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.



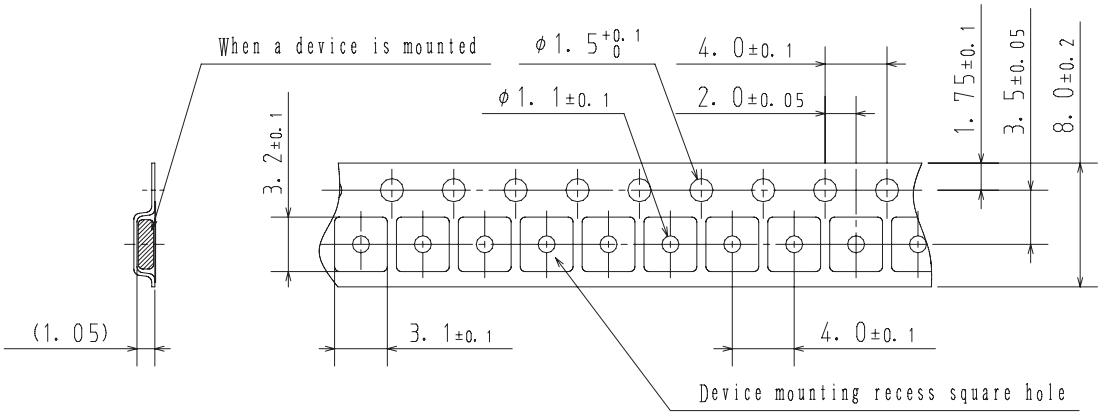
NOTE (1)

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

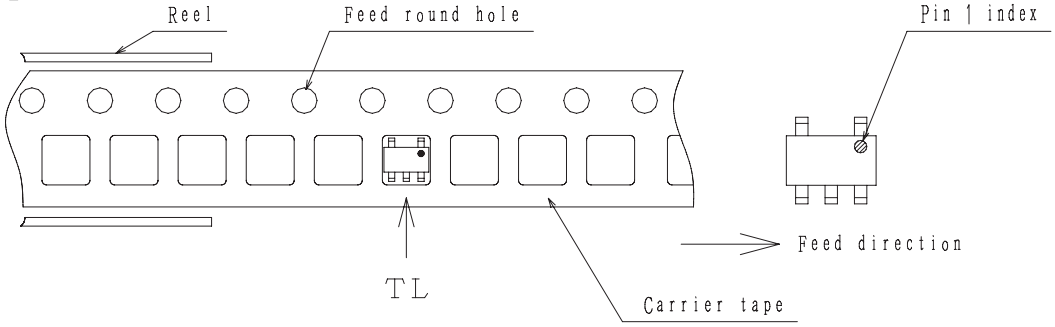
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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



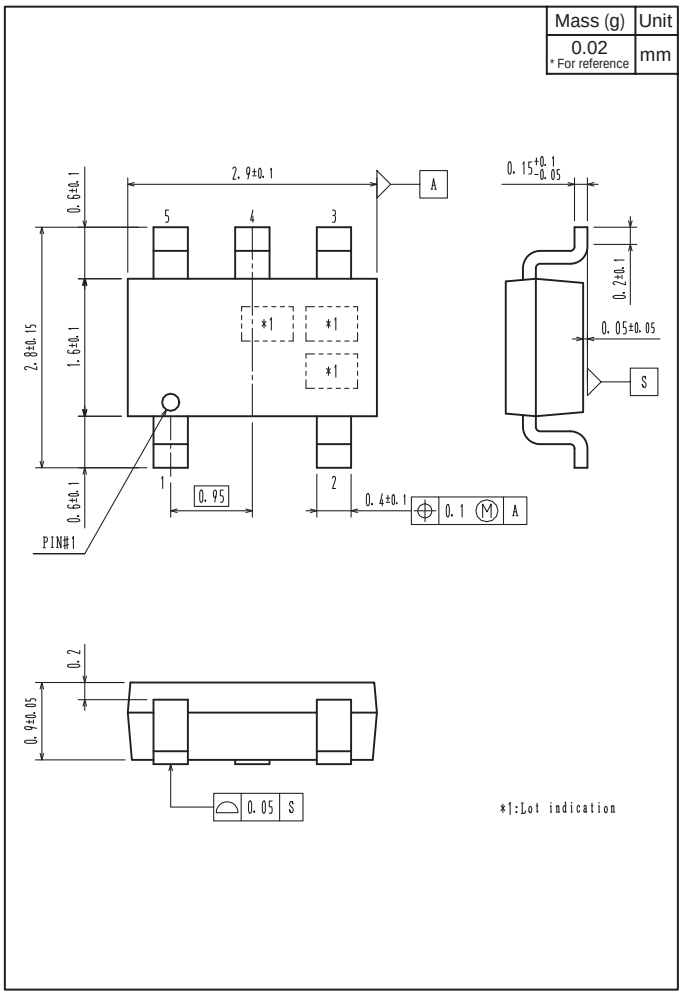
2-2. Device placement direction



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

Outline Drawing

SBE807-TL-E



Land Pattern Example