



# SBE812

## Schottky Barrier Diode

60V, 1A, Low IR, Non-Monolithic Dual VEC8 Common Cathode

ON Semiconductor®

<http://onsemi.com>

### Applications

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

### Features

- Small switching noise
- Low leakage current and high reliability due to highly reliable planar structure
- Ultrasmall package allows applied sets to be made small and thin

### Specifications

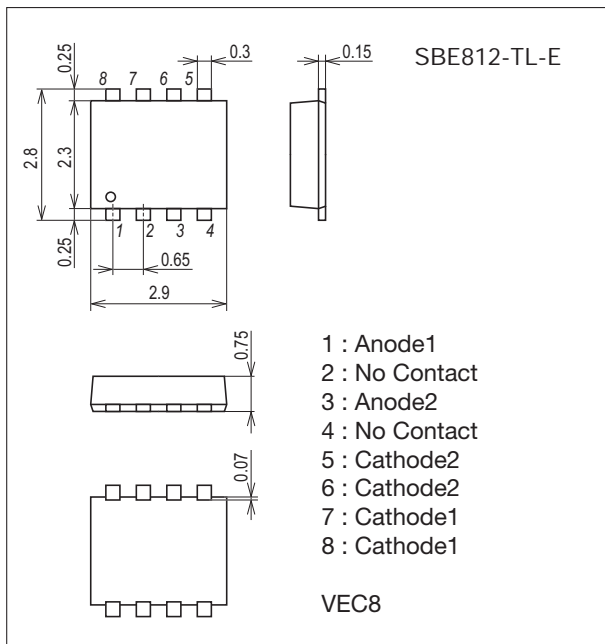
Absolute Maximum Ratings at Ta=25°C (Value per element)

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>		60	V
Nonrepetitive Peak Reverse Surge Voltage	V <sub>RSM</sub>		65	V
Average Output Current	I <sub>O</sub>		1.0	A
Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, 1 cycle	10	A
Junction Temperature	T <sub>j</sub>		-55 to +125	°C
Storage Temperature	T <sub>stg</sub>		-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

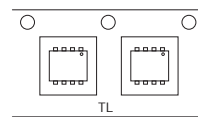
unit : mm (typ)  
7012-001



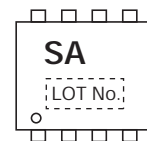
### Product & Package Information

- Package : VEC8
- JEITA, JEDEC : -
- Minimum Packing Quantity : 3,000 pcs./reel

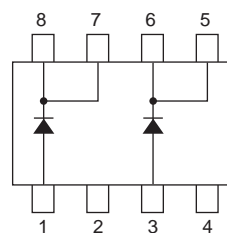
### Packing Type : TL



### Marking



### Electrical Connection

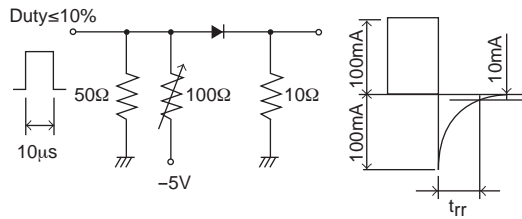


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## Electrical Characteristics at Ta=25°C (Value per element)

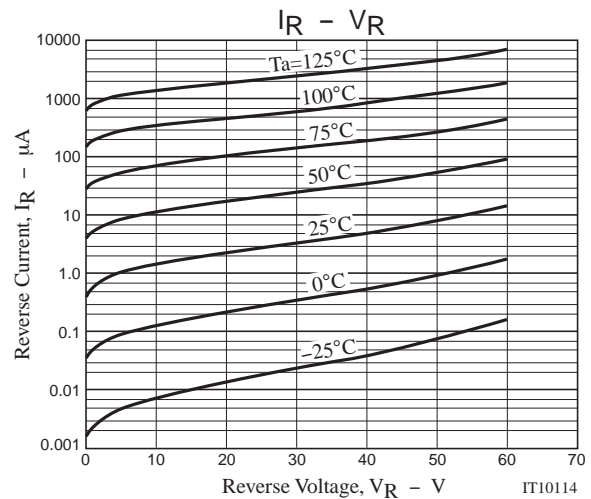
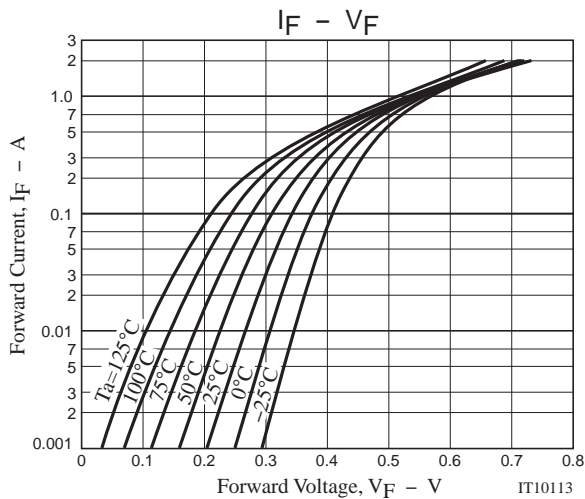
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V <sub>R</sub>	I <sub>R</sub> =0.2mA	60			V
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1A		0.55	0.60	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =30V			30	μA
Interterminal Capacitance	C	V <sub>R</sub> =10V, f=1MHz		35		pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =100mA, See specified Test Circuit.			10	ns
Thermal Resistance	Rth(j-a)1	When Mounted in Cu-foiled area of 1.92mm <sup>2</sup> ×0.03mm on glass epoxy substrate		80		°C / W
	Rth(j-a)2	When mounted on ceramic substrate (1000mm <sup>2</sup> ×0.8mm)		75		°C / W

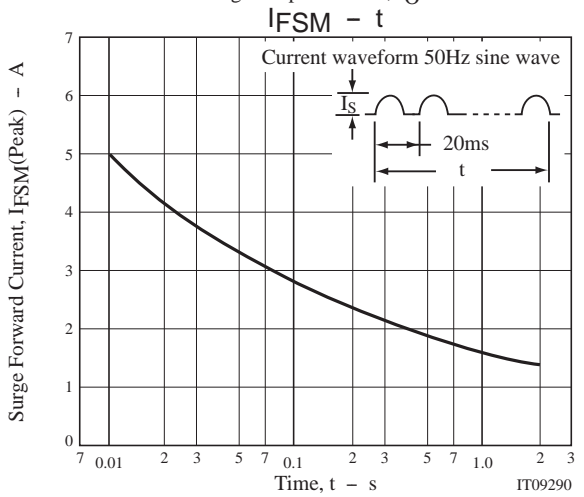
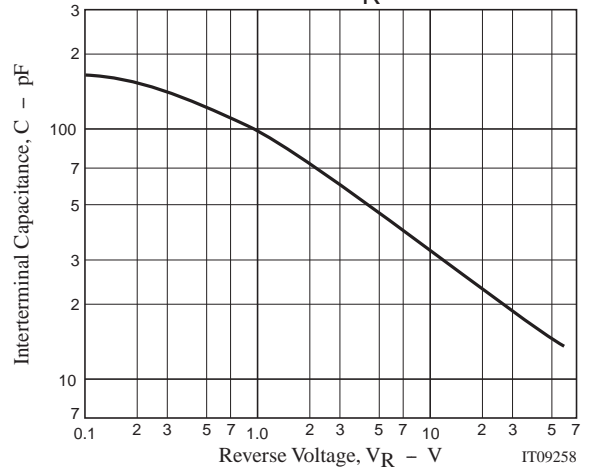
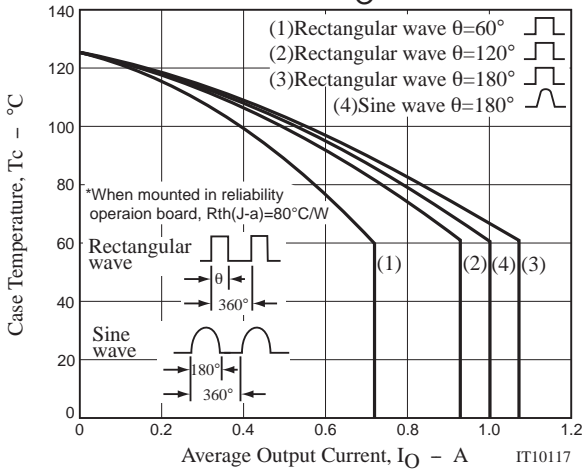
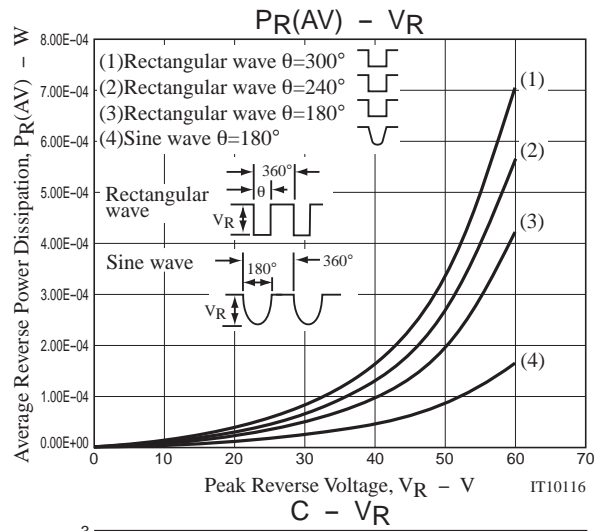
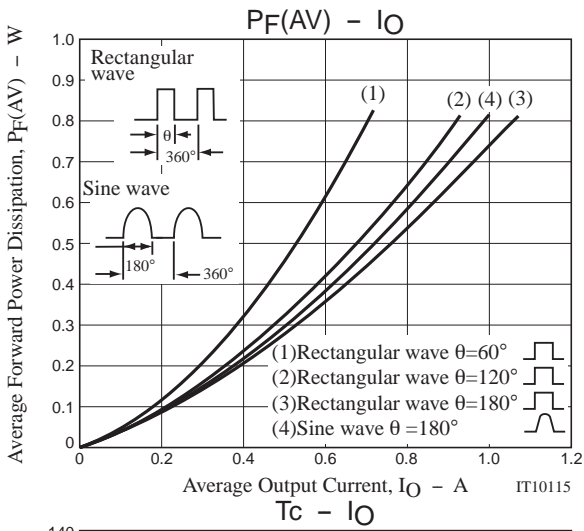
## t<sub>rr</sub> Test Circuit



## Ordering Information

Device	Package	Shipping	memo
SBE812-TL-E	VEC8	3,000pcs./reel	Pb Free





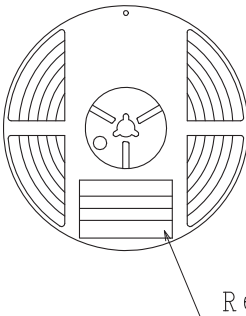
Taping Specification

SBE812-TL-E

1. Packing Format

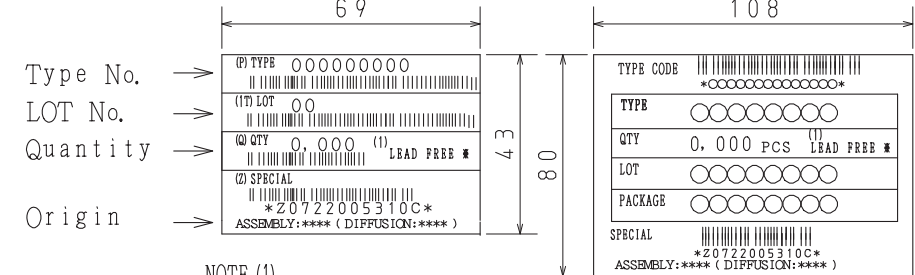
Package Name	Carrier Tape Type	Maximum Number of devices contained (pcs)			Packing format	
		Reel	Inner box	Outer box	Inner BOX (C-1)	Outer BOX (A-7)
VEC8	CPH6	3,000	15,000	90,000	5 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

Packing method



Reel label, 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.

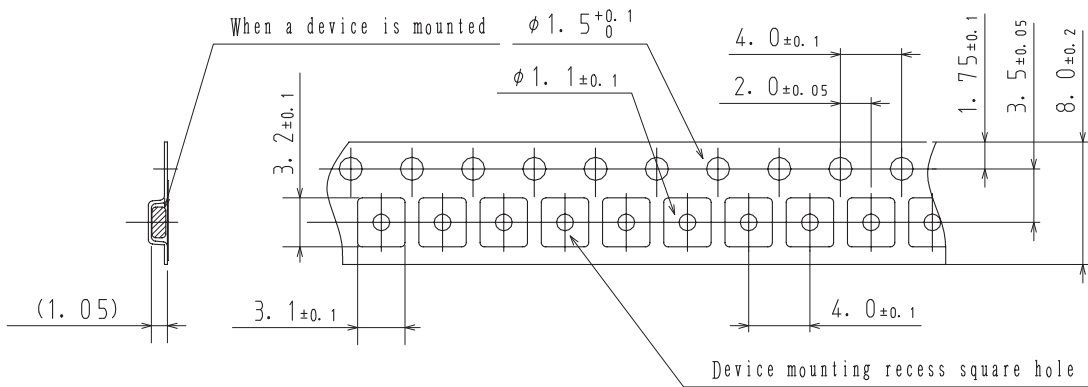


NOTE (1)  
The LEAD FREE \* description shows that the surface treatment of the terminal is lead free.

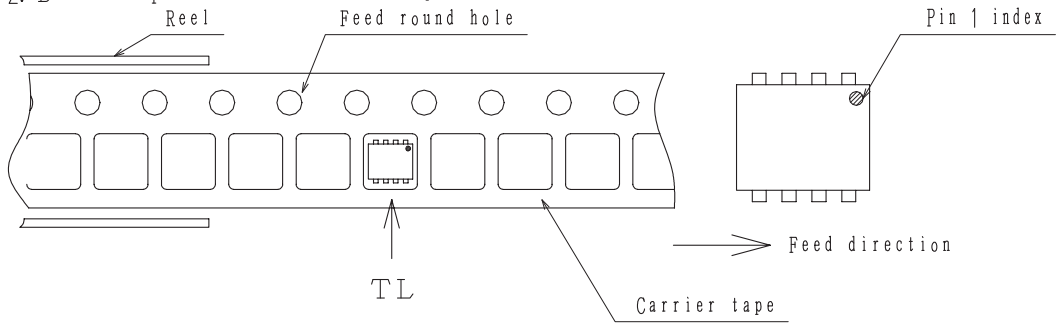
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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



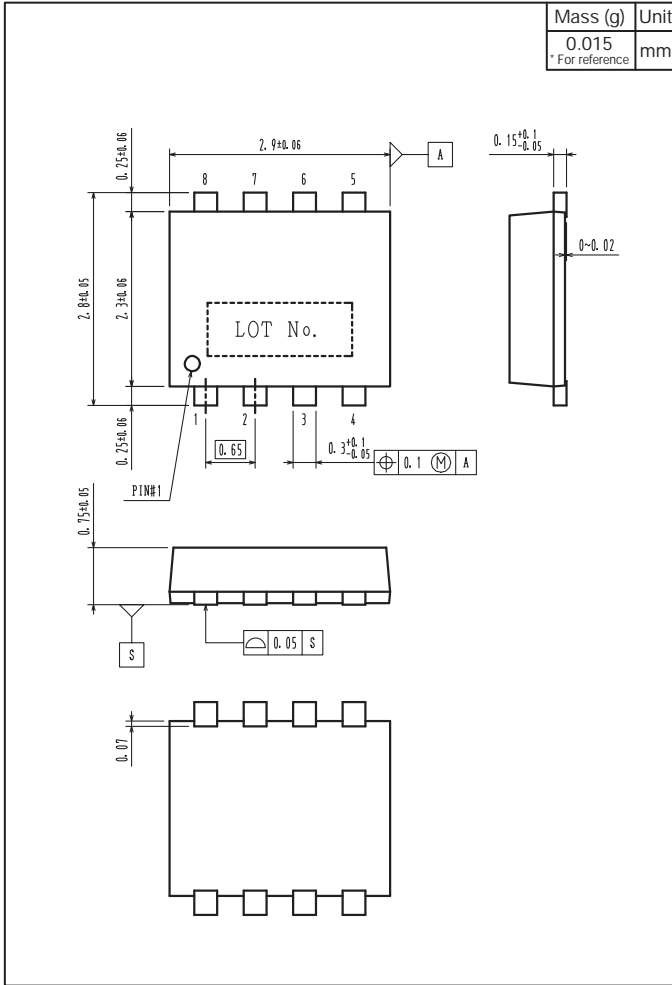
2-2. Device placement direction



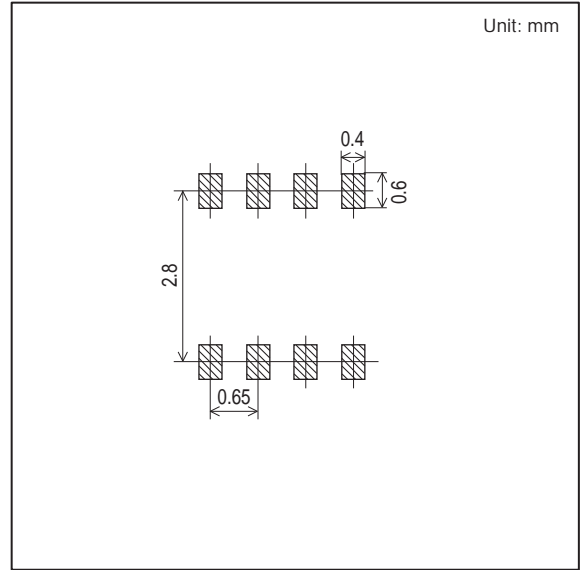
Those with oen electrode terminal on the feed hole side.....TL

# SBE812

## Outline Drawing SBE812-TL-E



## Land Pattern Example



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