



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

SBE812

Schottky Barrier Diode
60V, 1.0A Rectifier

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

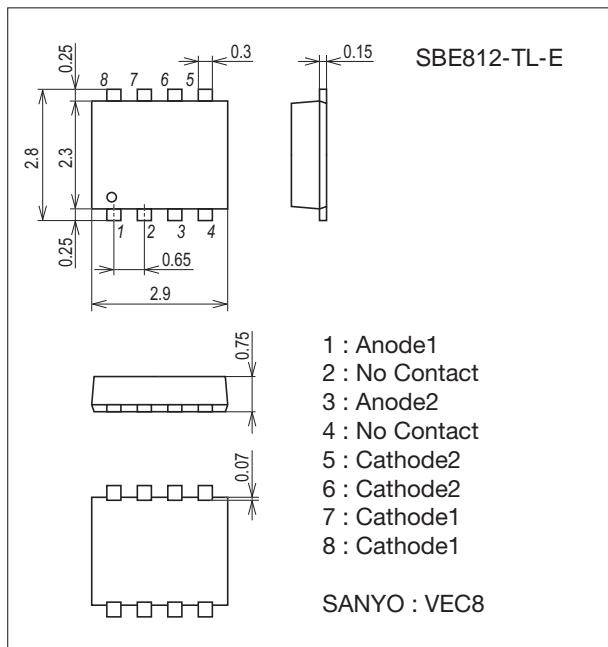
Absolute Maximum Ratings at Ta=25°C (Value per element)

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

Package Dimensions

unit : mm (typ)

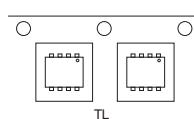
7012-001



Product & Package Information

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

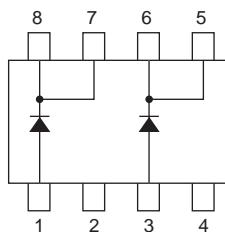
Packing Type : TL



Marking



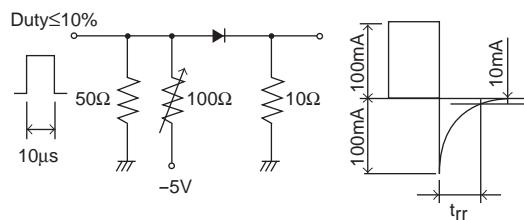
Electrical Connection



Electrical Characteristics at $T_a=25^{\circ}\text{C}$ (Value per element)

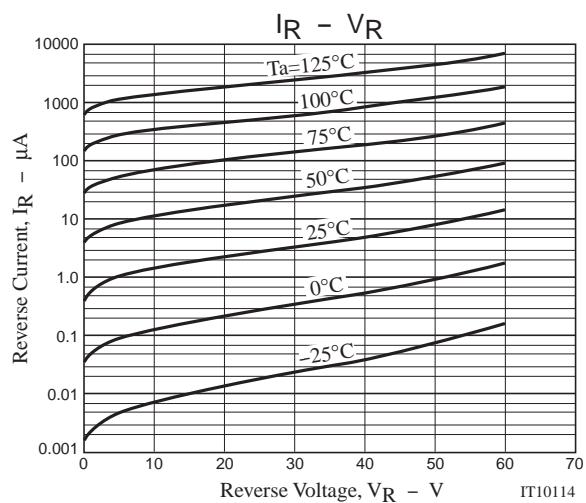
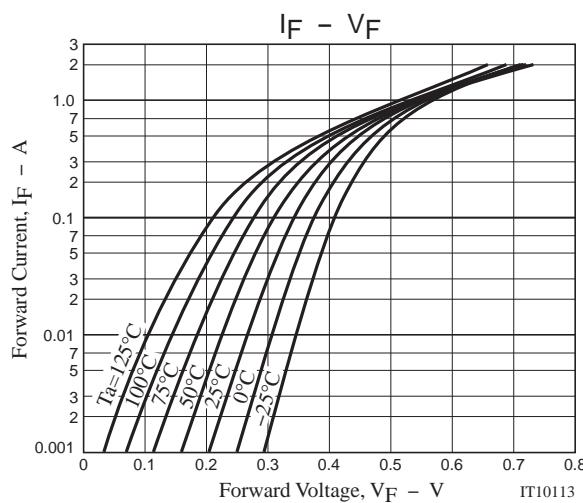
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=0.2\text{mA}$	60			V
Forward Voltage	V_F	$I_F=1\text{A}$		0.55	0.60	V
Reverse Current	I_R	$V_R=30\text{V}$			30	μA
Interterminal Capacitance	C	$V_R=10\text{V}, f=1\text{MHz}$		35		pF
Reverse Recovery Time	t_{rr}	$I_F=100\text{mA}$, See specified Test Circuit.			10	ns
Thermal Resistance	$R_{th(j-a)1}$	When Mounted in Cu-foiled area of $1.92\text{mm}^2 \times 0.03\text{mm}$ on glass epoxy substrate		80		$^{\circ}\text{C} / \text{W}$
	$R_{th(j-a)2}$	When mounted on ceramic substrate ($1000\text{mm}^2 \times 0.8\text{mm}$)		75		$^{\circ}\text{C} / \text{W}$

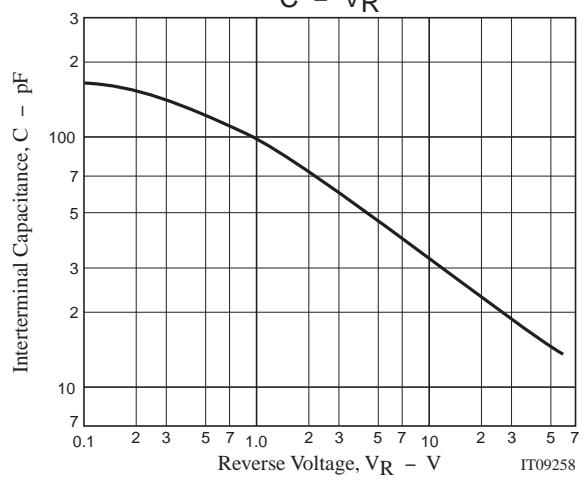
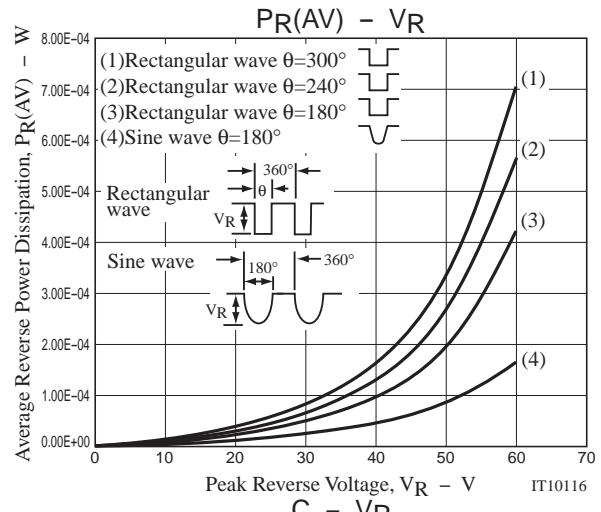
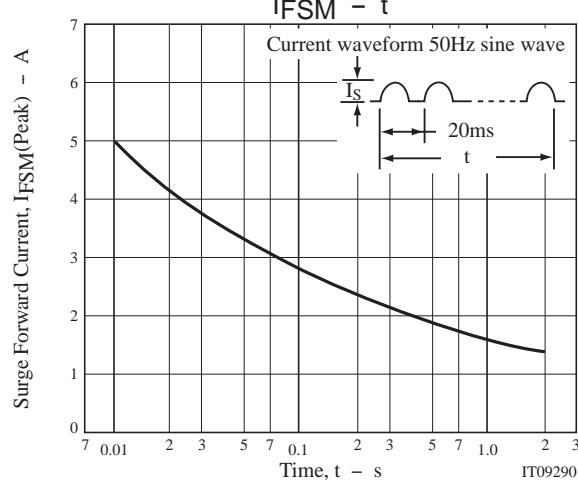
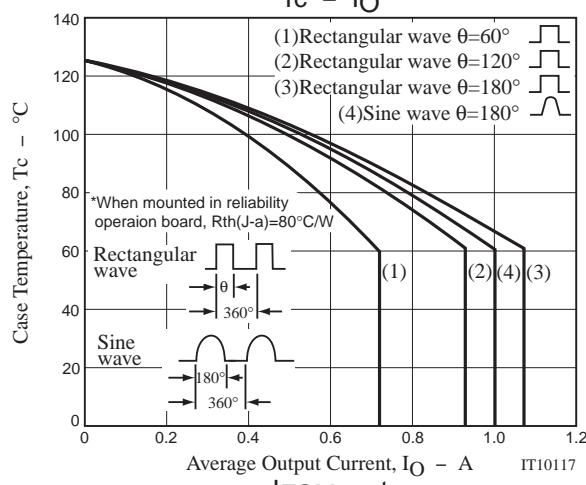
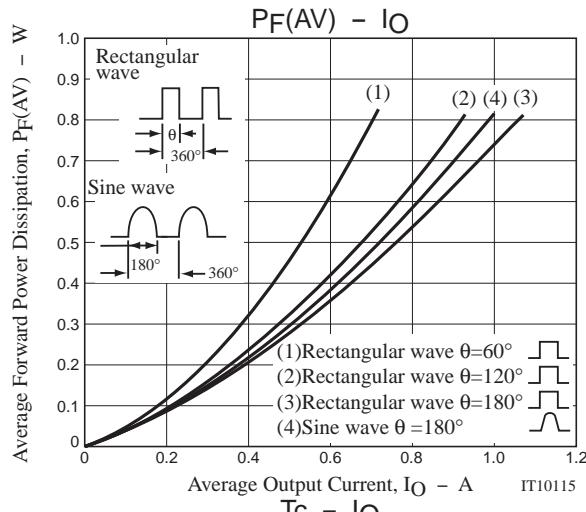
t_{rr} Test Circuit



Ordering Information

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



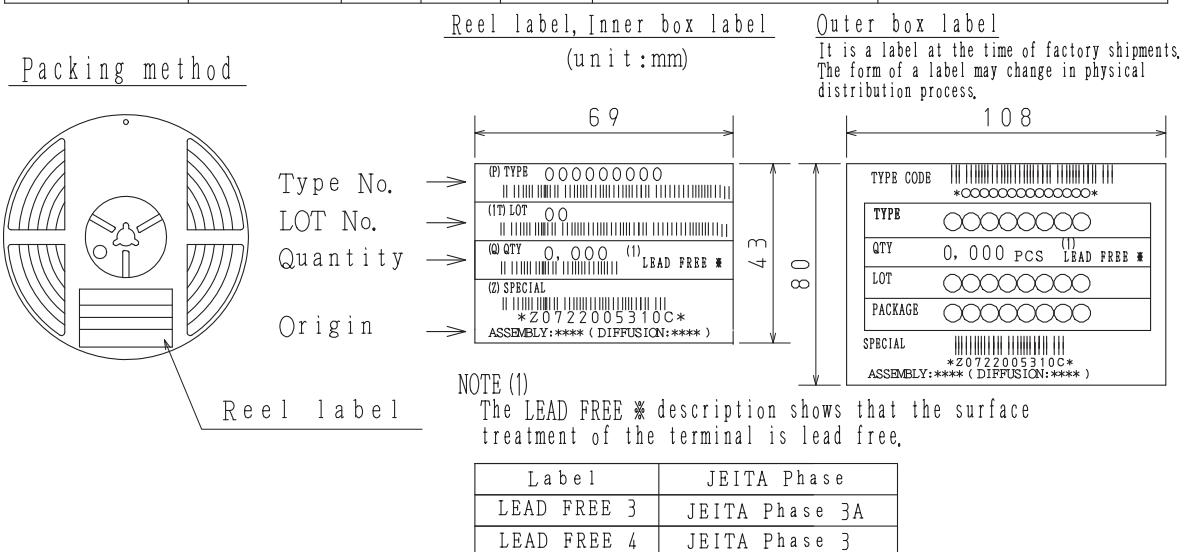
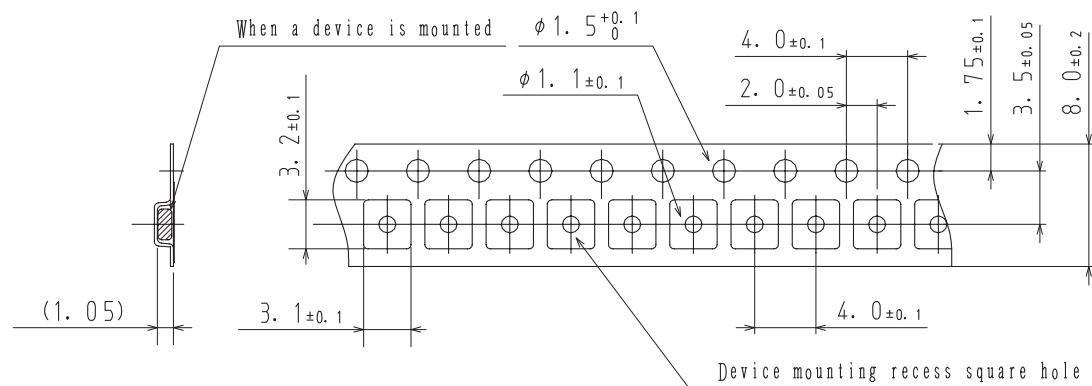
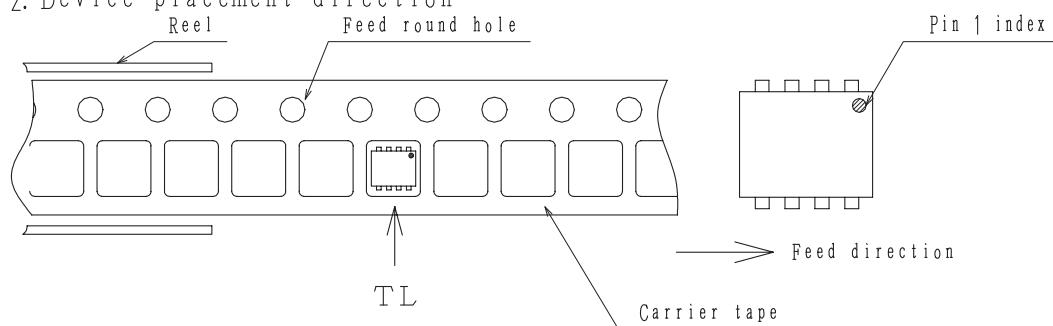


Taping Specification

SBE812-TL-E

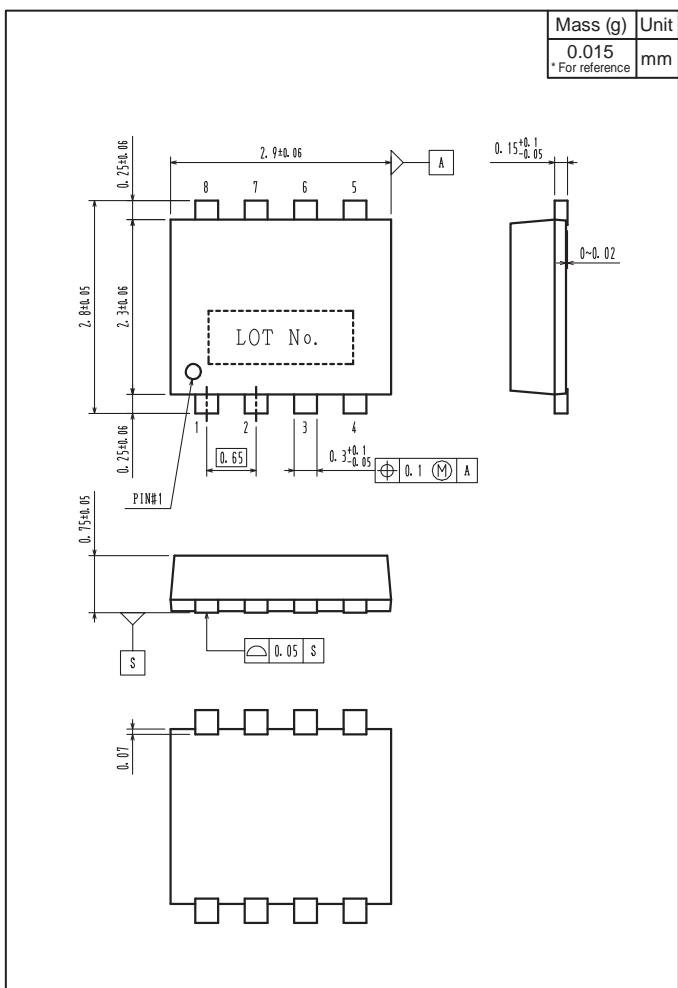
1. Packing Format

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

**2. Taping configuration****2-1. Carrier tape size (unit:mm)****2-2. Device placement direction**

Outline Drawing

SBE812-TL-E



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