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SBE812

Schottky Barrier Diode

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

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)

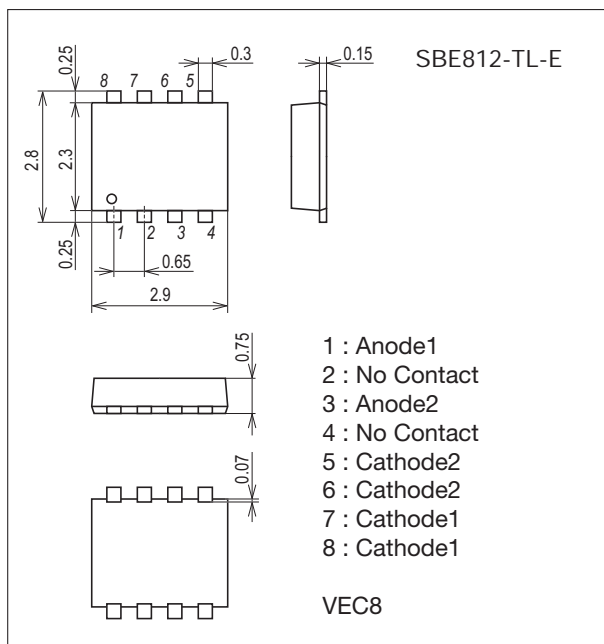
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V _{RRM}		60	V
Nonrepetitive Peak Reverse Surge Voltage	V _{RSM}		65	V
Average Output Current	I _O		1.0	A
Surge Forward Current	I _{FSM}	50Hz sine wave, 1 cycle	10	A
Junction Temperature	T _j		-55 to +125	°C
Storage Temperature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

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)

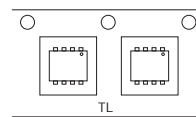
7012-001



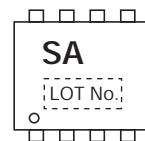
Product & Package Information

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

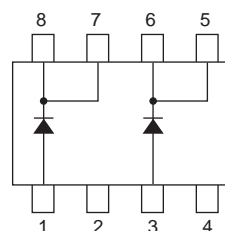
Packing Type : TL



Marking



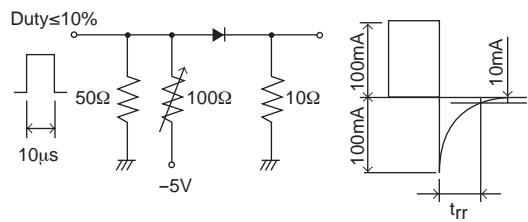
Electrical Connection



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

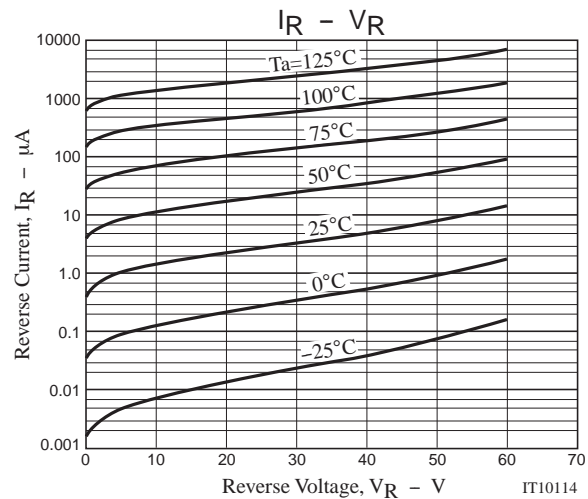
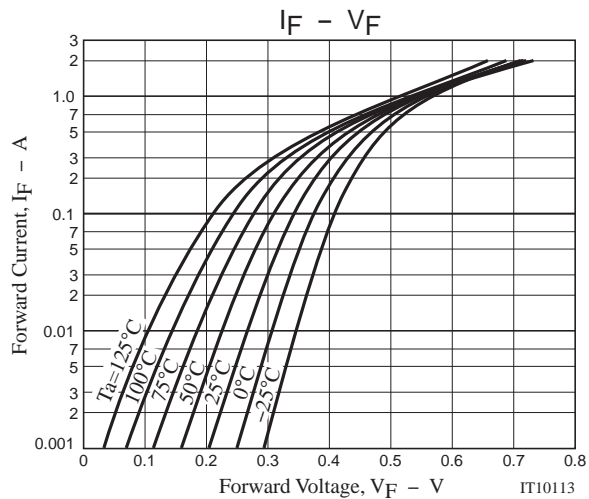
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=0.2\text{mA}$	60			V
Forward Voltage	V_F	$I_F=1\text{A}$		0.55	0.60	V
Reverse Current	I_R	$V_R=30\text{V}$			30	μA
Interterminal Capacitance	C	$V_R=10\text{V}$, $f=1\text{MHz}$		35		pF
Reverse Recovery Time	t_{rr}	$I_F=100\text{mA}$, 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		$^{\circ}\text{C} / \text{W}$

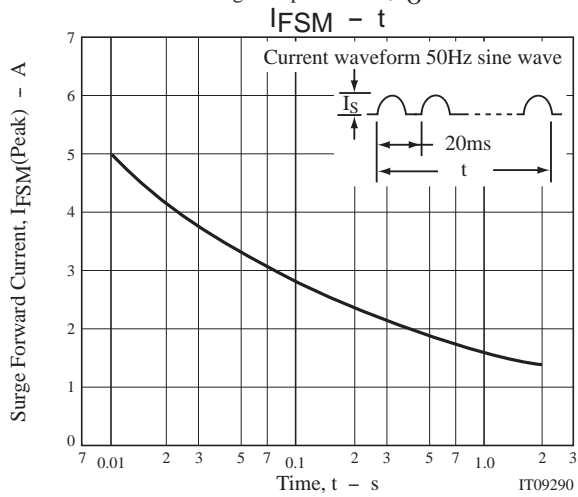
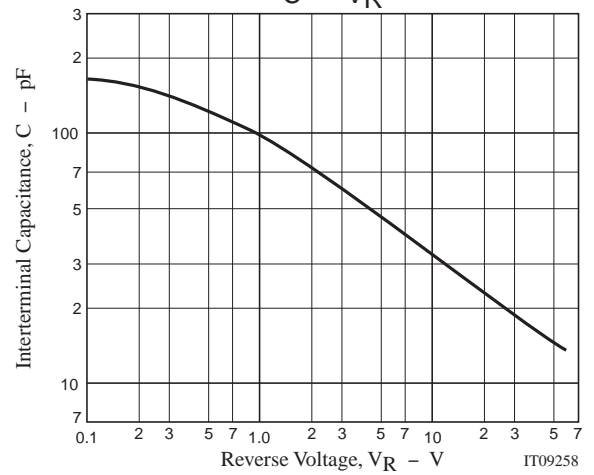
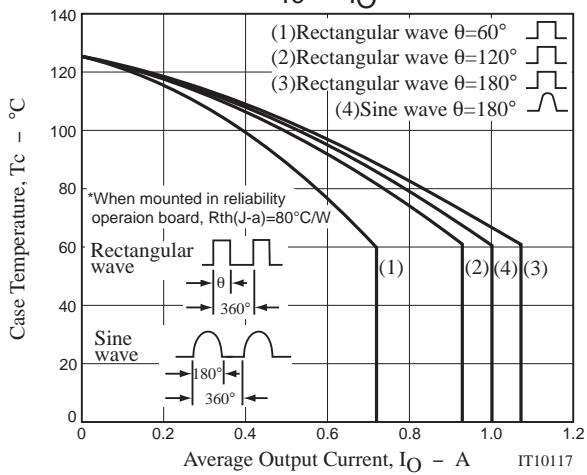
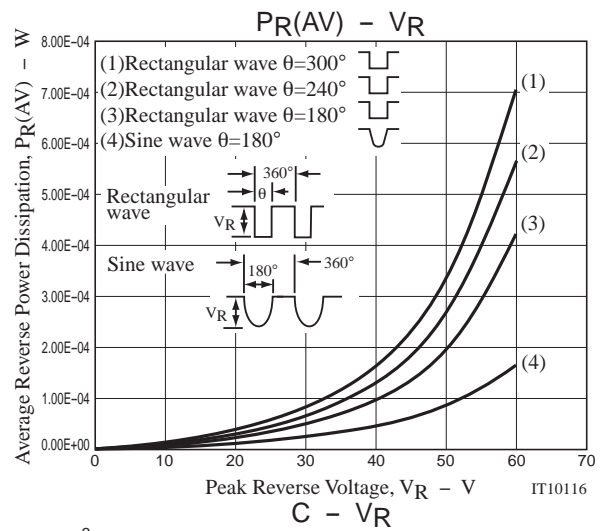
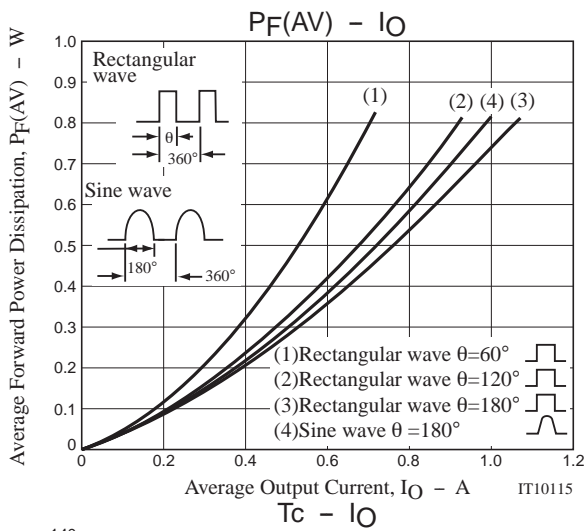
t_{rr} Test Circuit



Ordering Information

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





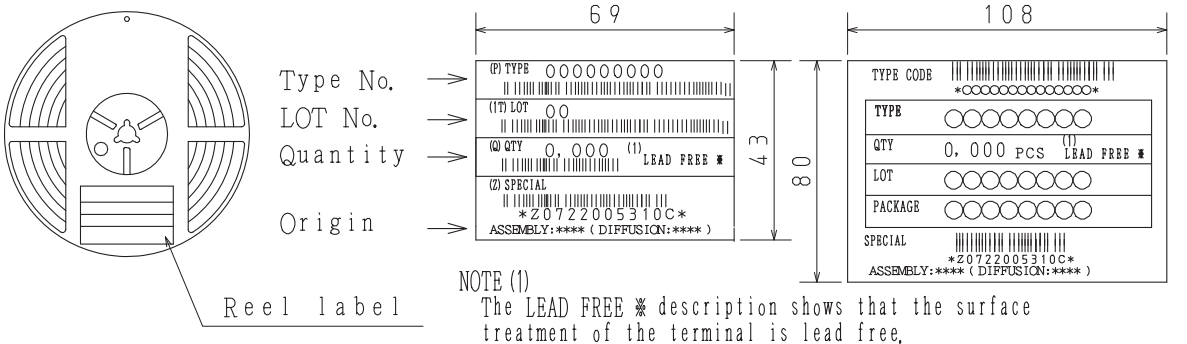
Taping Specification

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

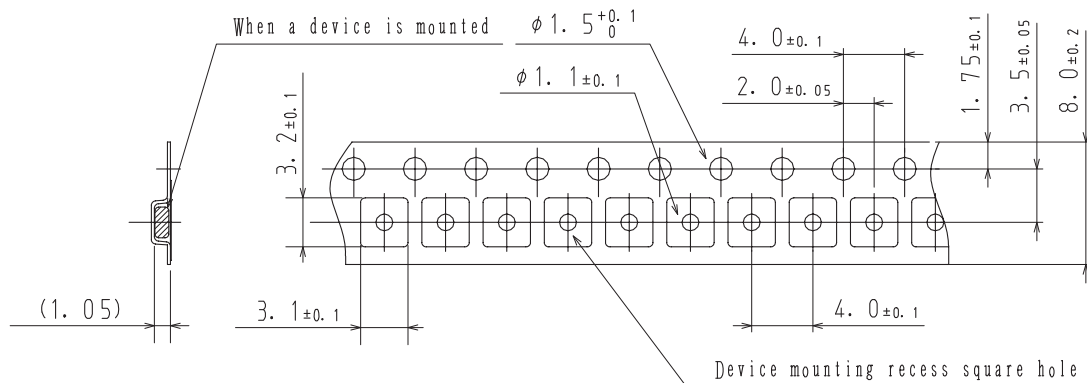
Packing method



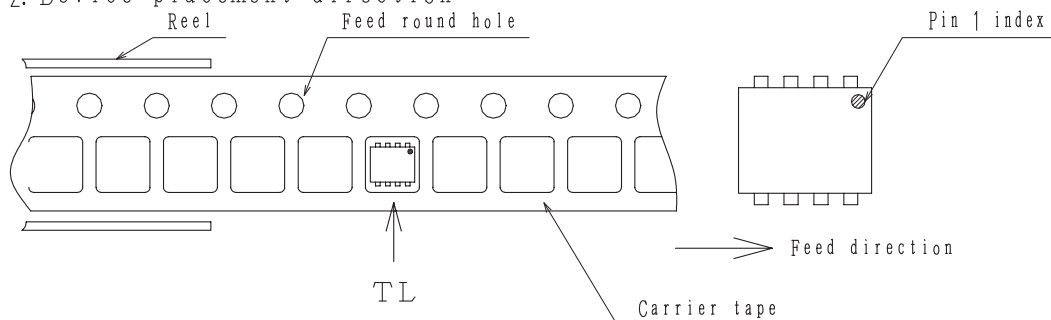
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

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

Technical drawing of a stepped shaft. The shaft has a total length of 2.8 units and a total diameter of 0.6 units. It consists of four steps, each with a width of 0.4 units. The distance between the centers of the first and second steps is 0.65 units. The shaft is shown in a perspective view with a cross-section at the right end.

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