



ON Semiconductor®

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SBE807

Schottky Barrier Diode 30V, 1A, Low IR

Applications

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

Features

- Low switching noise
- Low reverse current ($V_R=16V$, $I_R \text{ max}=15\mu A$)

Specifications

Absolute Maximum Ratings at $T_a=25^\circ C$

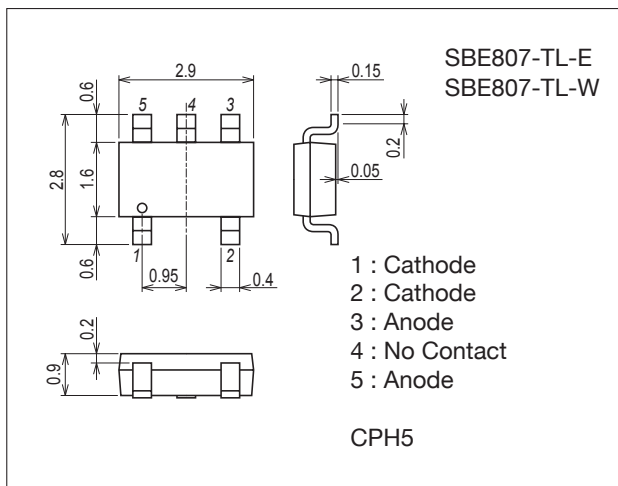
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		30	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		35	V
Average Output Current	I_O		1.0	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	10	A
Junction Temperature	T_J		-55 to +125	$^\circ C$
Storage Temperature	T_{stg}		-55 to +125	$^\circ C$

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

Package Dimensions

unit : mm (typ)

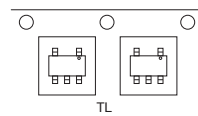
7017A-001



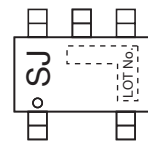
Product & Package Information

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

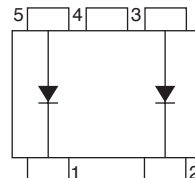
Packing Type : TL



Marking



Electrical Connection



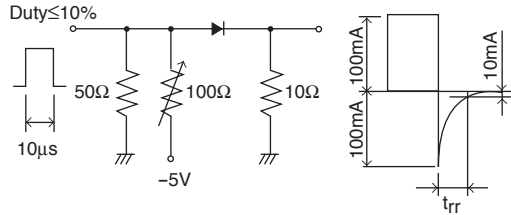
ORDERING INFORMATION

See detailed ordering and shipping information on page 2 of this data sheet.

Electrical Characteristics at $T_a=25^{\circ}\text{C}$

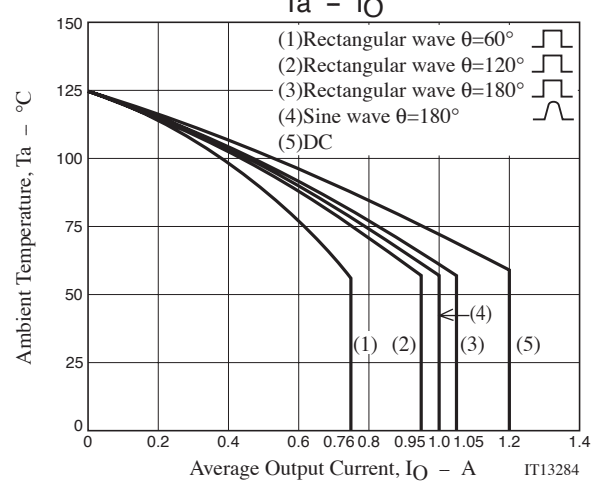
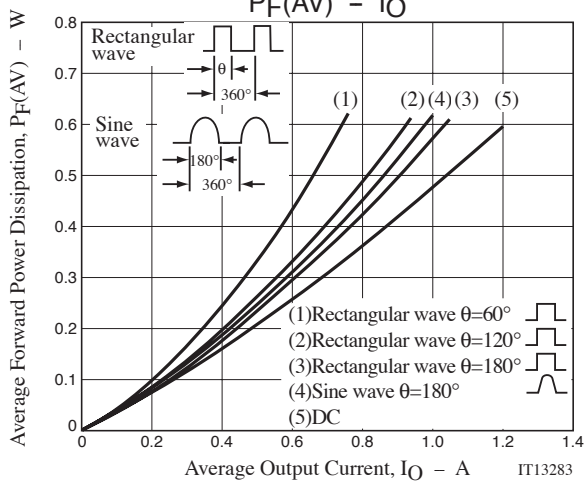
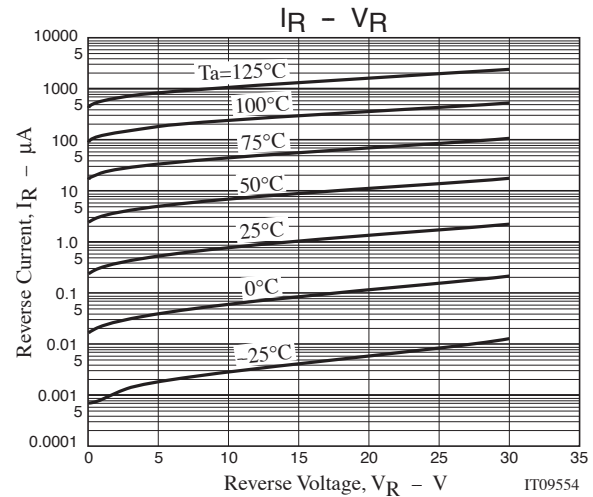
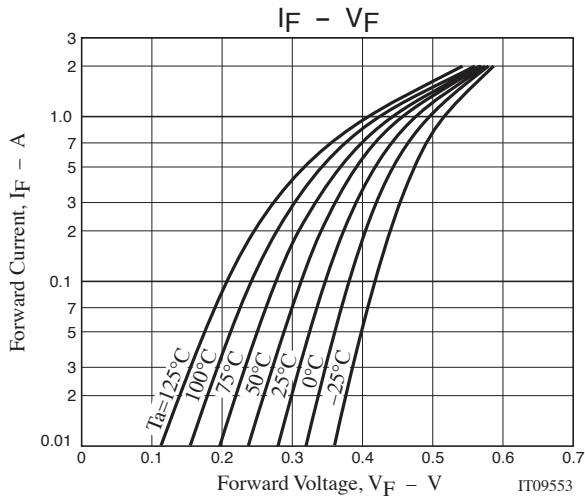
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=0.2\text{mA}$	30			V
Forward Voltage	V_{F1}	$I_F=0.7\text{A}$		0.45	0.50	V
	V_{F2}	$I_F=1.0\text{A}$		0.48	0.53	V
Reverse Current	I_R	$V_R=16\text{V}$			15	μA
Interterminal Capacitance	C	$V_R=10\text{V}$, $f=1\text{MHz}$		27		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100\text{mA}$, See specified Test Circuit.			10	ns
Thermal Resistance	$R_{th(j-a)}$	When mounted on ceramic substrate (900mm $\times$ 0.8mm)		111		$^{\circ}\text{C} / \text{W}$

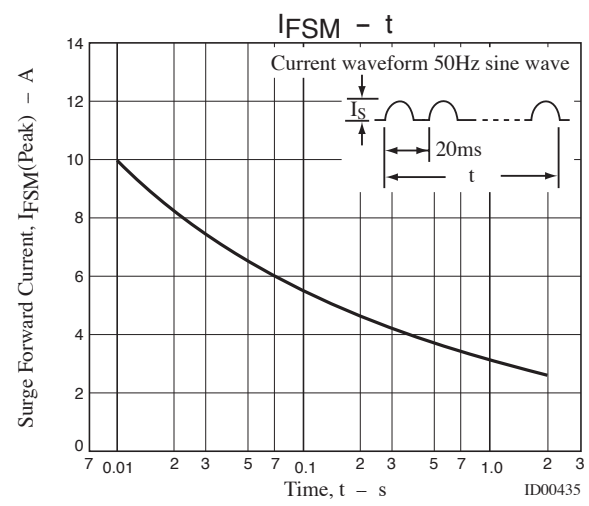
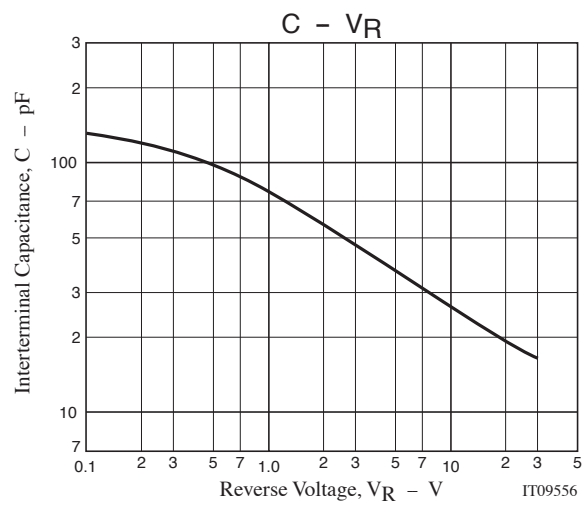
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

 t_{rr} Test Circuit

Ordering Information

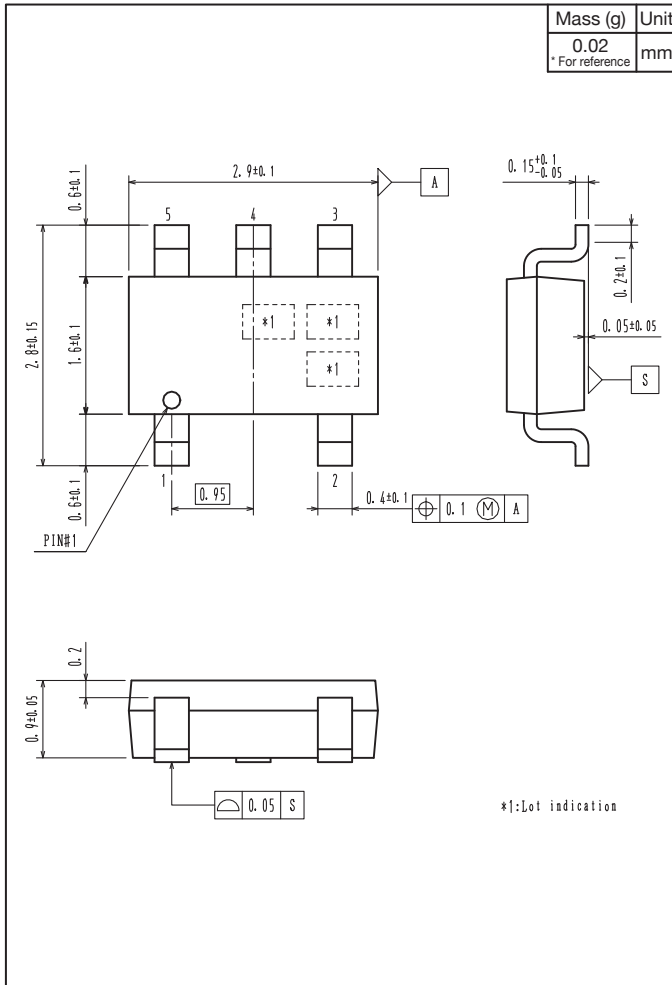
Device	Package	Shipping	memo
SBE807-TL-E	CPH5	3,000pcs./reel	Pb-Free
SBE807-TL-W			Pb-Free and Halogen Free



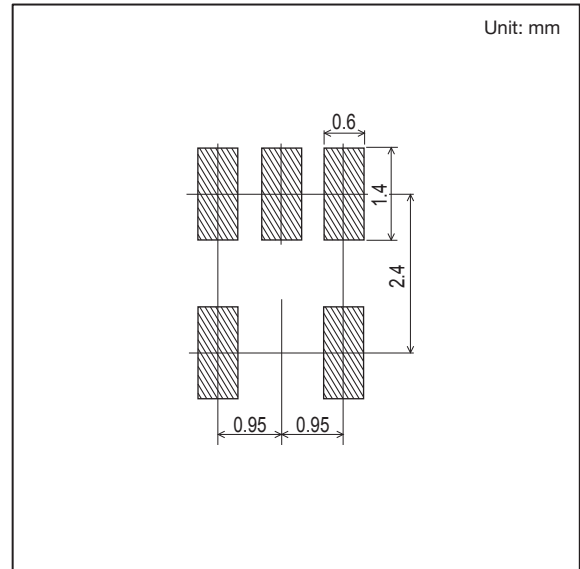


Outline Drawing

SBE807-TL-E, SBE807-TL-W



Land Pattern Example



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