



SBE001

Schottky Barrier Diode 30V, 2A, Low IR, Single CPH6

ON Semiconductor®

<http://onsemi.com>

Applications

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

Features

- Low forward voltage (VF max=0.55V)
- Fast reverse recovery time (trr max=20ns)
- Low switching noise
- Low leakage current and high reliability due to highly reliable planar structure
- Ultrasmall-sized package, permitting SBE001-applied sets to be compact and slim (0.9mm)
- Halogen free compliance

Specifications

Absolute Maximum Ratings at Ta=25°C

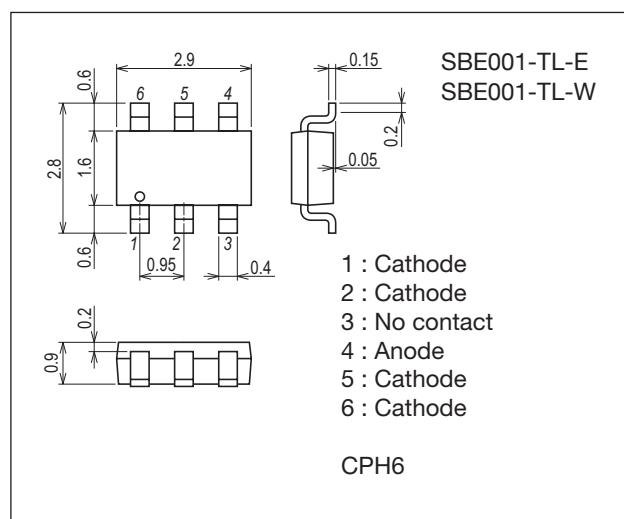
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V _{RRM}		30	V
Nonrepetitive Peak Reverse Surge Voltage	V _{RSM}		35	V
Average Output Current	I _O		2	A
Surge Forward Current	I _{FSM}	50Hz sine wave, 1 cycle	20	A
Junction Temperature	T _J		-55 to +125	°C
Storage Temperature	T _{Stg}		-55 to +125	°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)

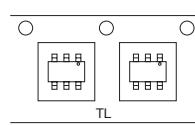
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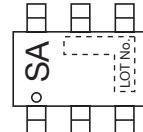
Product & Package Information

- Package : CPH6
- JEITA, JEDEC : SC-74, SOT-26, SOT-457
- Minimum Packing Quantity : 3,000 pcs./reel

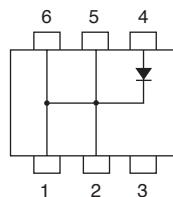
Packing Type: TL



Marking



Electrical Connection



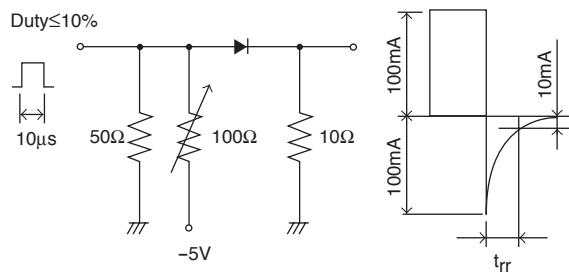
ORDERING INFORMATION

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

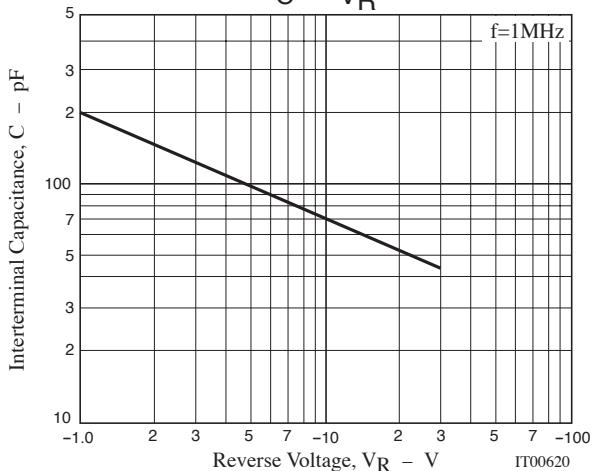
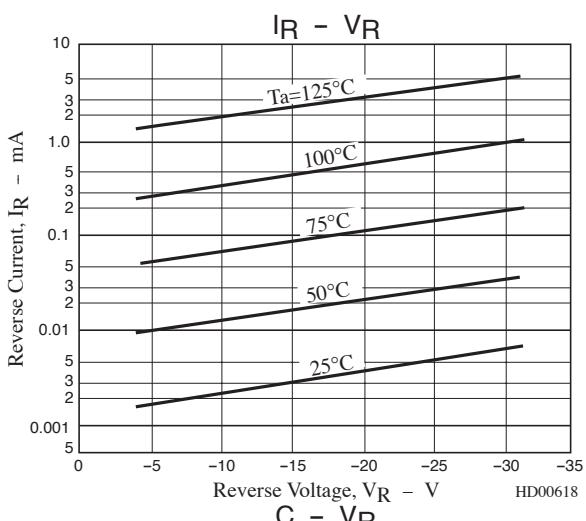
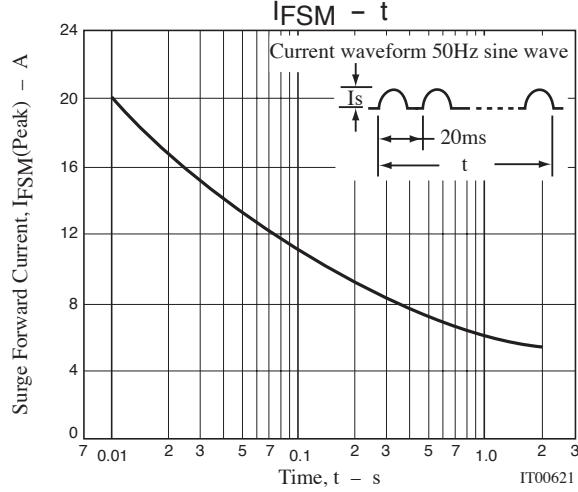
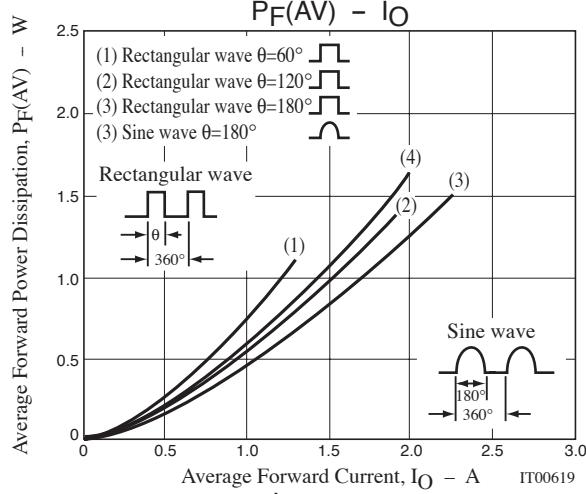
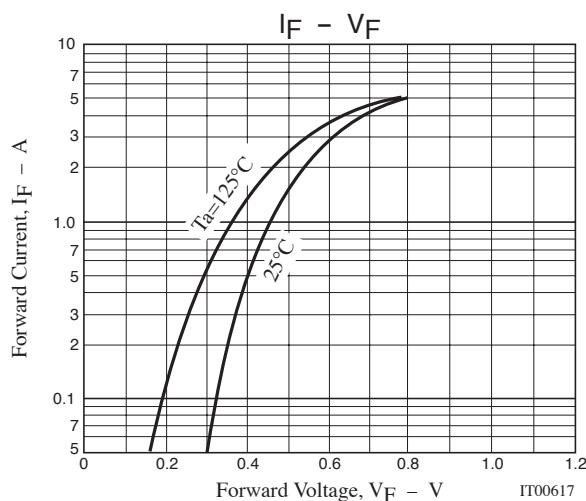
Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=500\mu\text{A}$	30			V
Forward Voltage	V_F	$I_F=2\text{A}$			0.55	V
Reverse Current	I_R	$V_R=15\text{V}$			100	μA
Interterminal Capacitance	C	$V_R=10\text{V}, f=1\text{MHz}$		70		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100\text{mA}$, See specified Test Circuit.			20	ns
Thermal Resistance	$R_{th(j-a)}$	When mounted on ceramic substrate (600mm ² ×0.8mm)		110		$^\circ\text{C} / \text{W}$

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.

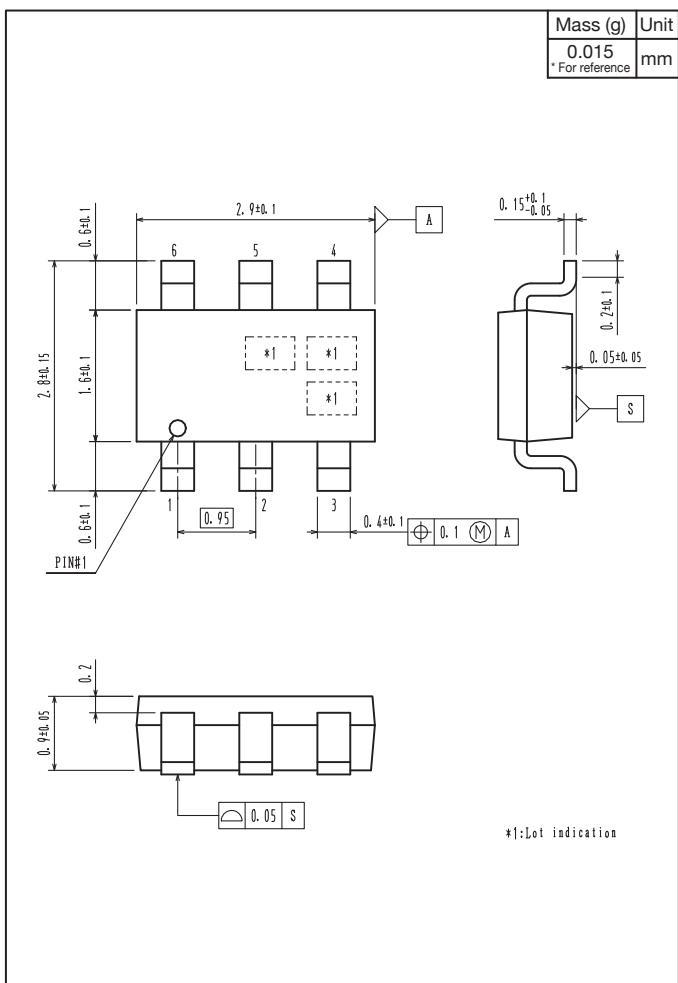
 t_{rr} Test Circuit**Ordering Information**

Device	Package	Shipping	memo
SBE001-TL-E	CPH6	3,000pcs./reel	Pb-Free
SBE001-TL-W	CPH6	3,000pcs./reel	Pb-Free and Halogen Free

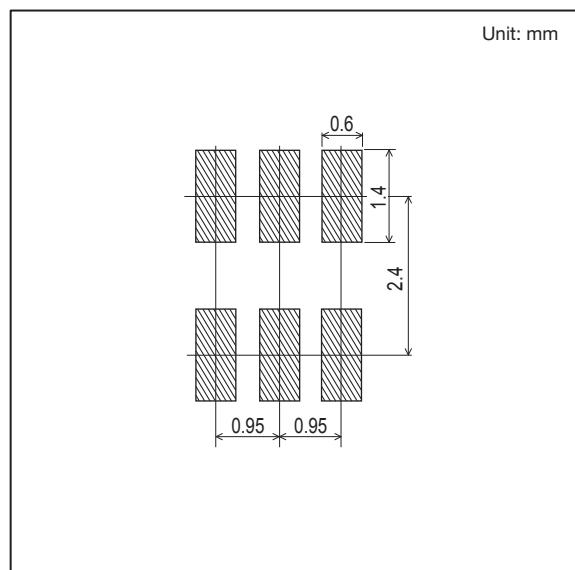


Outline Drawing

SBE001-TL-E, SBE001-TL-W



Land Pattern Example



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