



# SBS813

Low VF Schottky Barrier Diode  
**30V, 3.0A Rectifier**

## Applications

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

## Features

- Small switching noise.
- Low forward voltage ( $I_F=3A$ ,  $V_F \text{ max}=0.42V$ ).
- Ultrasmall package permitting applied sets to be small and slim.

## Specifications

### Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$		30	V
Nonrepetitive Peak Reverse Surge Voltage	$V_{RSM}$		30	V
Average Output Current	$I_O$		3.0	A
Surge Forward Current	$I_{FSM}$	50Hz sine wave, 1 cycle	20	A
Junction Temperature	$T_J$		-55 to +125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +125	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	$V_R$	$I_R=2.0\text{mA}$	30			V
Forward Voltage	$V_F$	$I_F=2.0A$		0.335	0.385	V
		$I_F=3.0A$		0.37	0.42	V
Reverse Current	$I_R$	$V_R=15V$			1.4	mA
Interterminal Capacitance	$C$	$V_R=10V, f=1\text{MHz}$		90		pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=100\text{mA}$ , See specified Test Circuit.			20	ns
Thermal Resistance	$R_{th(j-a)}$	Mouted on a ceramic board (1200mm <sup>2</sup> X0.8mm)		50		$^\circ\text{C} / W$

Marking : SF

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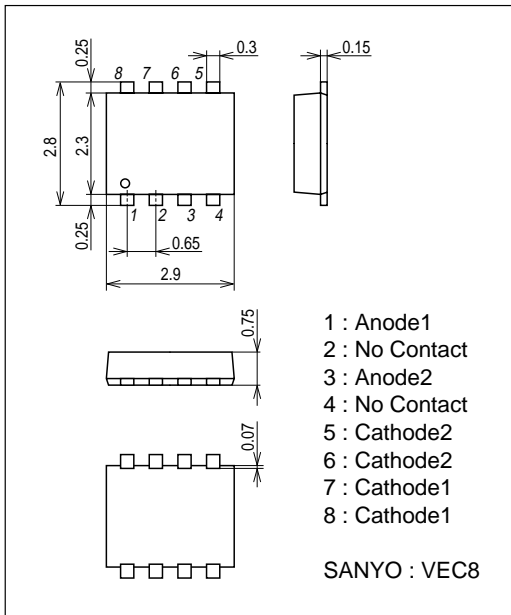
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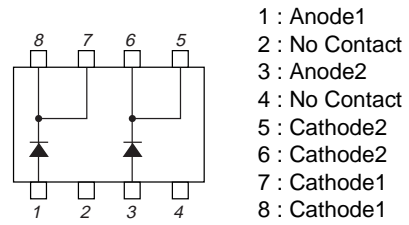
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Package Dimensions

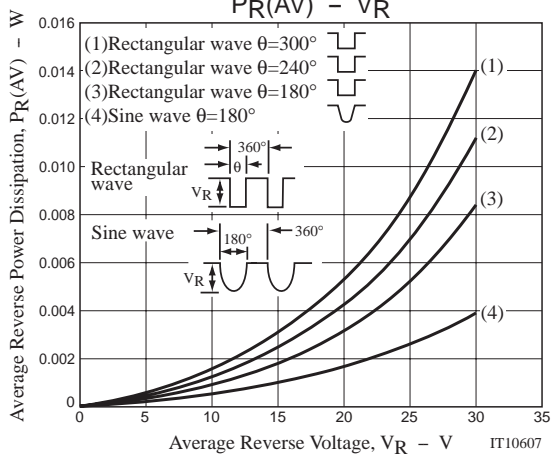
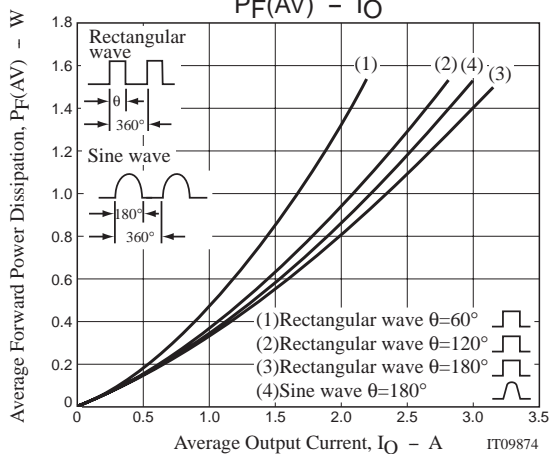
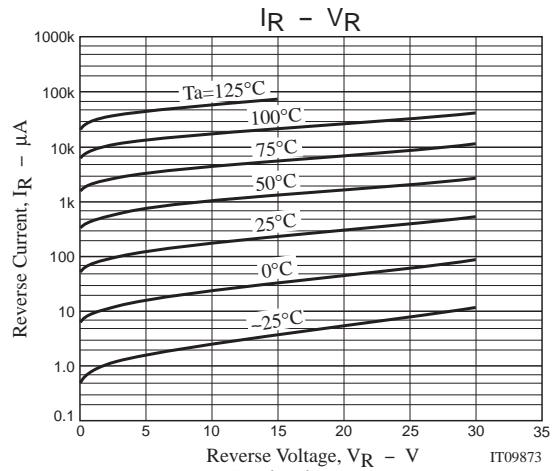
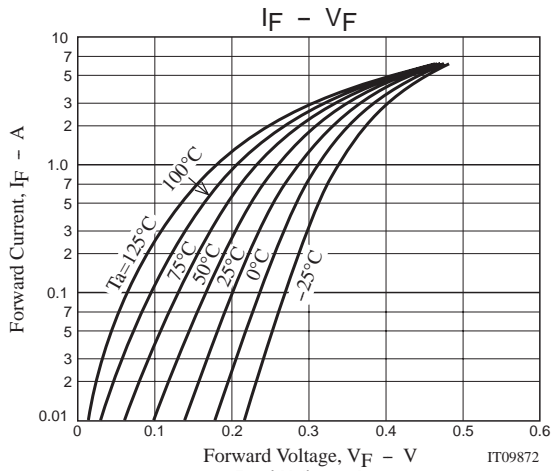
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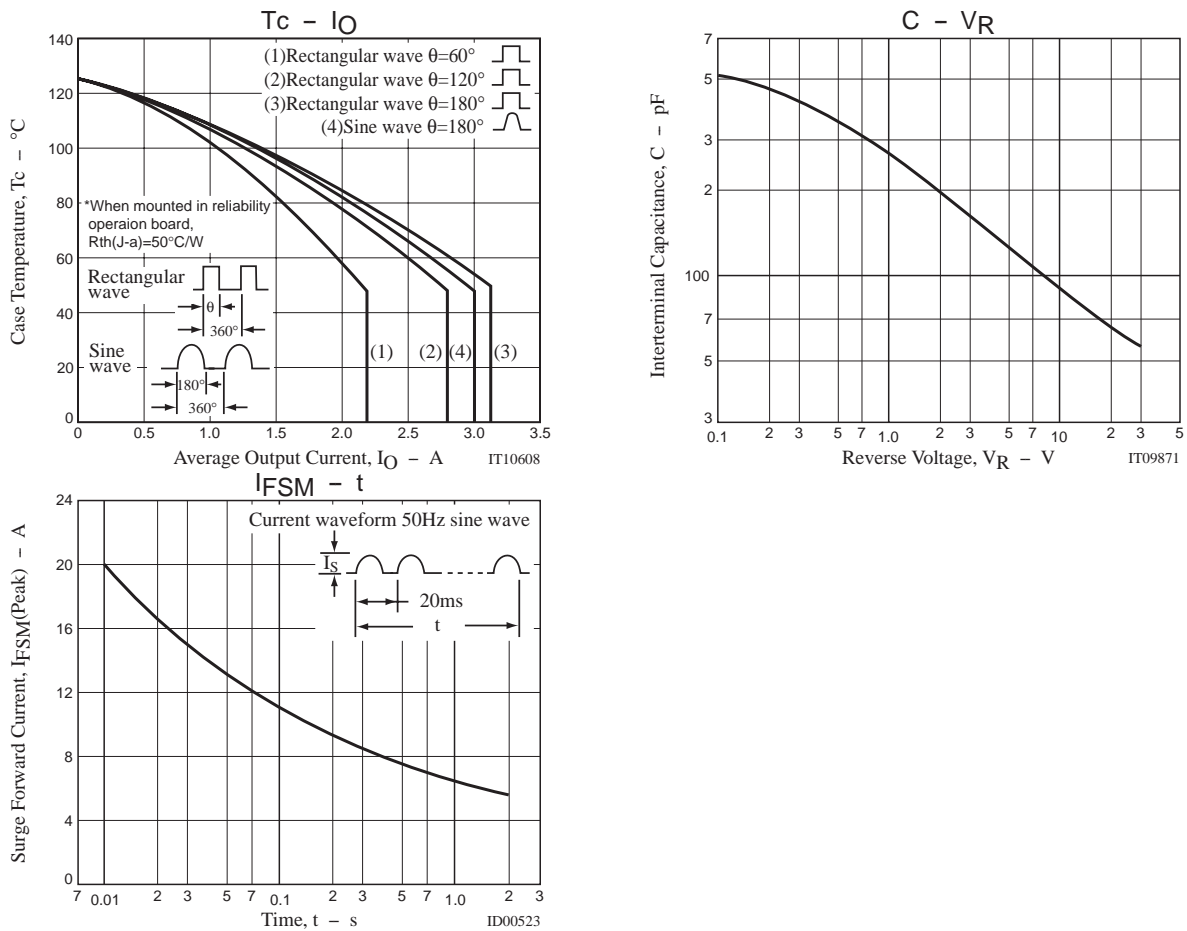


Electrical Connection



Top view





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