



# SANYO Semiconductors

## DATA SHEET

# SBS814

Low VF Schottky Barrier Diode  
**30V, 1.0A Rectifier**

### Applications

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

### Features

- Small switching noise.
- Low forward voltage ( $I_F=1A$ ,  $V_F$  max=0.45V).
- 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	$I_O$		1.0	A
Surge Forward Current	$I_{FSM}$	50Hz sine wave, 1 cycle	10	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	$V_{F1}$	$I_F=500\text{mA}$			0.39	V
	$V_{F2}$	$I_F=1.0\text{A}$			0.45	V
Reverse Current	$I_R$	$V_R=15\text{V}$			360	$\mu\text{A}$
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	$R_{th(j-a)1}$	Mounted in Cu-foiled area of $1.92\text{mm}^2 \times 0.03\text{mm}$ on glass epoxy board		95		$^\circ\text{C} / \text{W}$
	$R_{th(j-a)2}$	Mouted on a ceramic board ( $1200\text{mm}^2 \times 0.8\text{mm}$ )		65		$^\circ\text{C} / \text{W}$

Marking : SG

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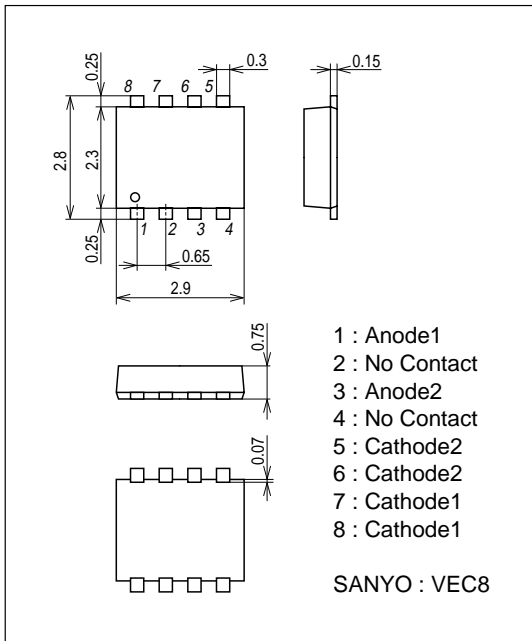
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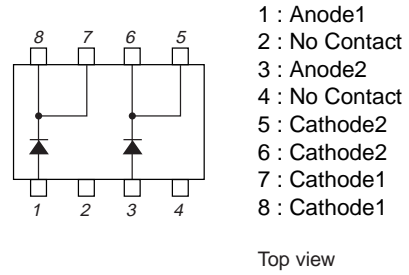
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Package Dimensions

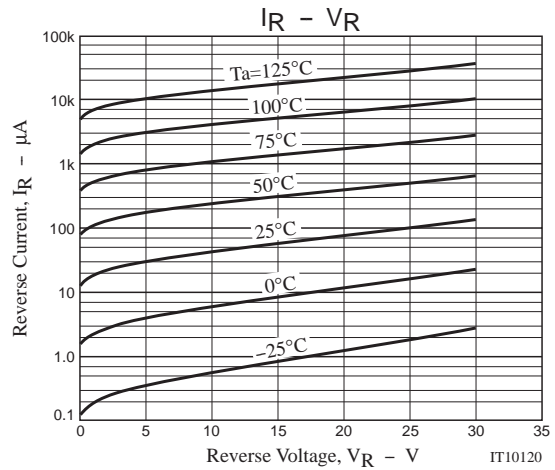
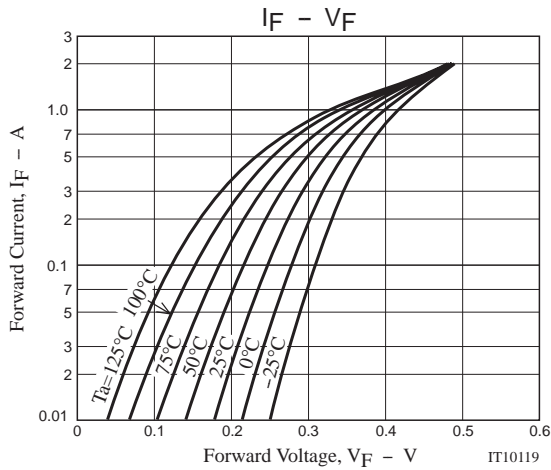
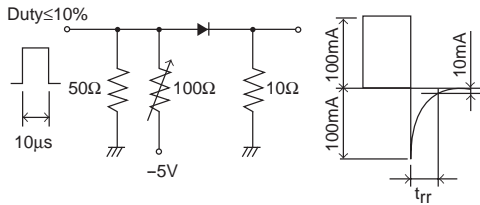
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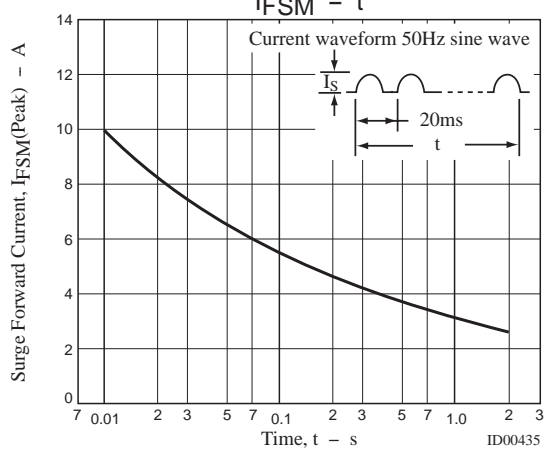
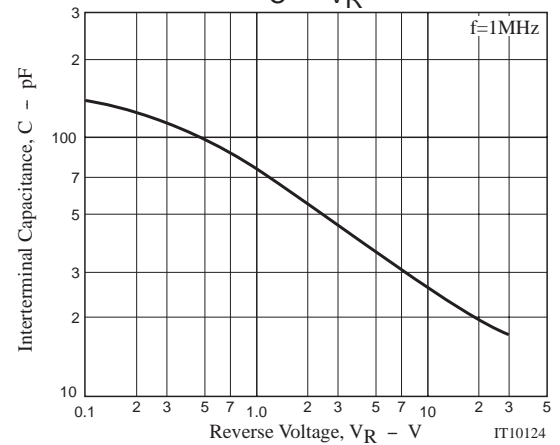
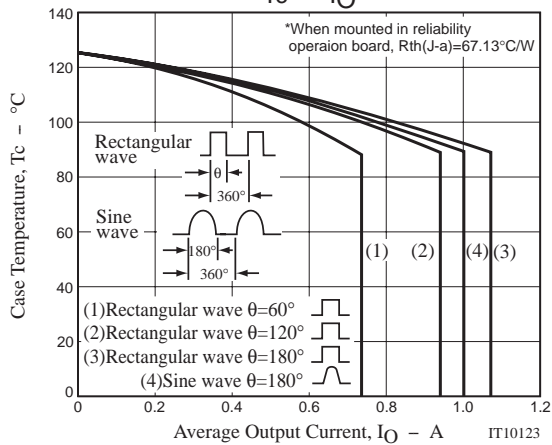
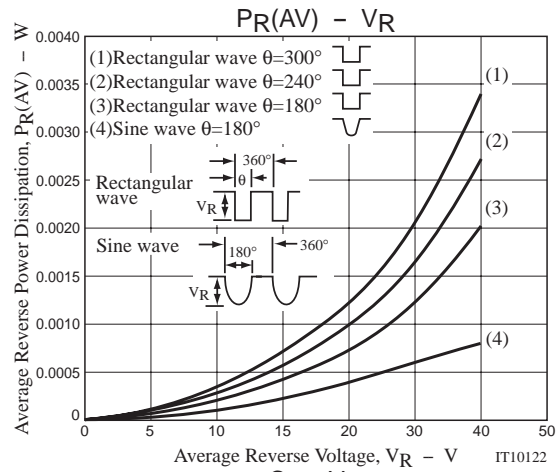
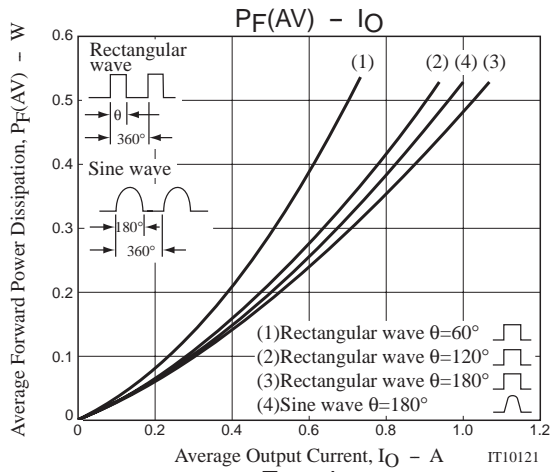


Electrical Connection



$t_{rr}$  Test Circuit





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