



SANYO Semiconductors

# DATA SHEET

An ON Semiconductor Company

## SBS818 — Low VF Schottky Barrier Diode 30V, 2.0A Rectifier

### Applications

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

### Features

- Small switching noise.
- Low forward voltage ( $I_F=2.0A$ ,  $V_F \text{ max}=0.52V$ )
- Ultrasmall package permitting applied sets to be small and slim (Mounting height 0.75mm).

### Specifications

**Absolute Maximum Ratings** at  $T_a=25^\circ\text{C}$  (Value per element)

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	$I_O$	When mounted on ceramic substrate	2.0	A
		When mounted on glass epoxy substrate	1.5	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	$^\circ\text{C}$

Marking : SD

\*: The absolute maximum ratings and electrical characteristics refer to those between Terminal 1 and Terminal 7 (or 8), and between Terminal 3 and Terminal 5 (or 6).

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**SANYO Semiconductor Co., Ltd.**

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# SBS818

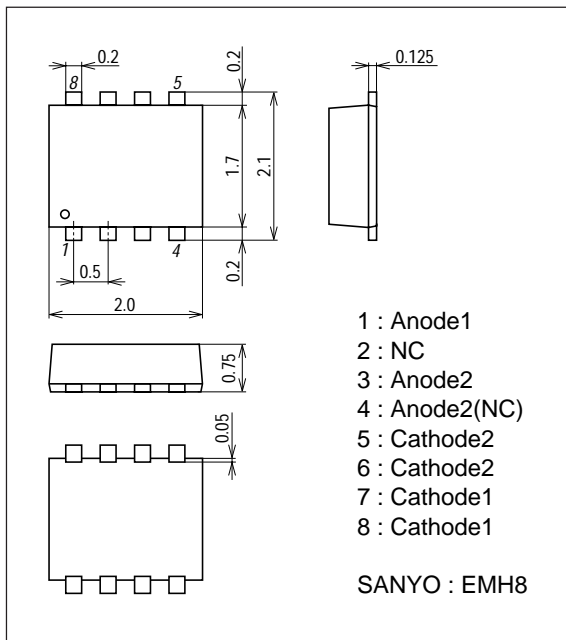
## Electrical Characteristics at Ta=25°C (Value per element)

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	$V_R$	$I_R=1mA$	30			V
Forward Voltage	$V_{F1}$	$I_F=1.0A$		0.37		V
	$V_{F2}$	$I_F=1.5A$		0.42	0.47	V
	$V_{F3}$	$I_F=2.0A$		0.46	0.52	V
Reverse Current	$I_R$	$V_R=15V$			350	$\mu A$
Interterminal Capacitance	C	$V_R=10V, f=1MHz$		30		pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=100mA$ , See specified Test Circuit.			10	ns
Thermal Resistance	$R_{th(j-a)1}$	When mounted in Cu-foiled area of 0.96mm <sup>2</sup> ×0.03mm on glass epoxy substrate		100		°C / W
	$R_{th(j-a)2}$	When mounted on ceramic substrate (900mm <sup>2</sup> ×0.8mm)		65		°C / W

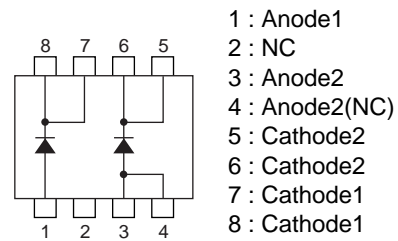
## Package Dimensions

unit : mm (typ)

7045-004



## Electrical Connection

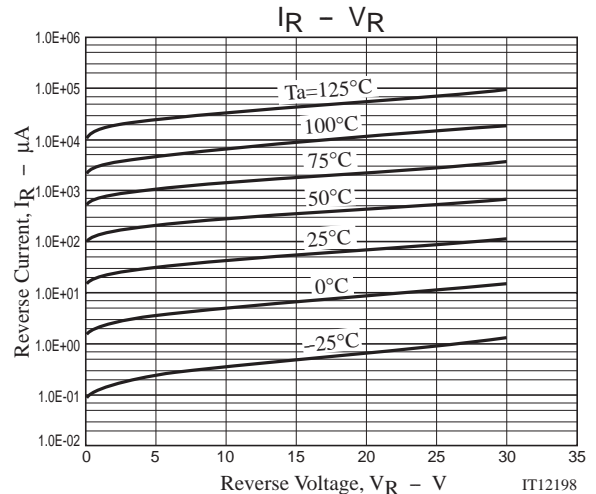
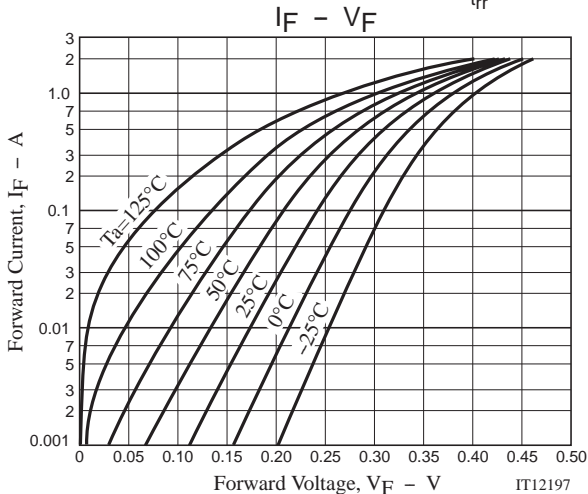
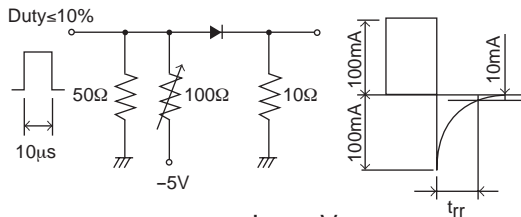


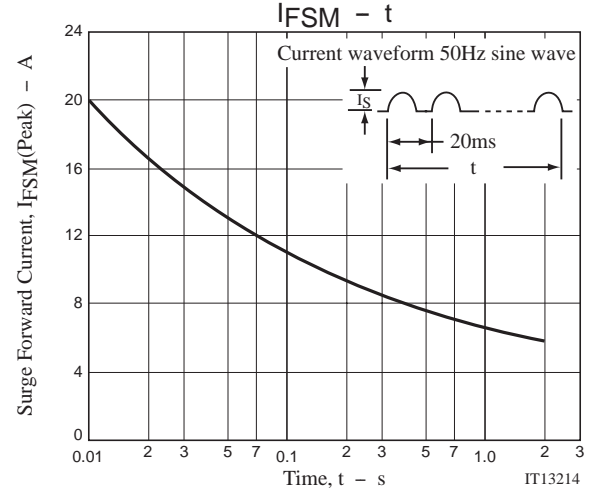
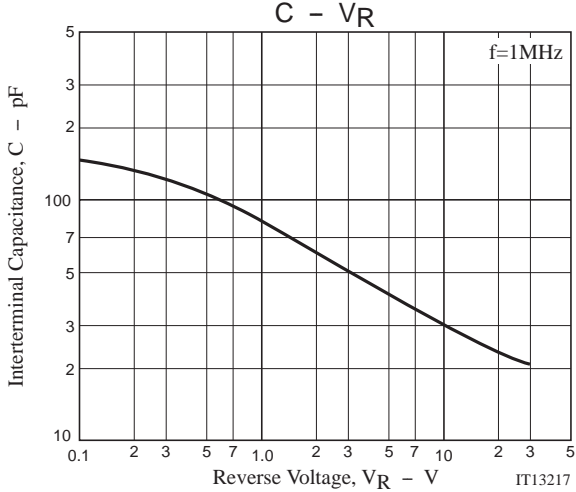
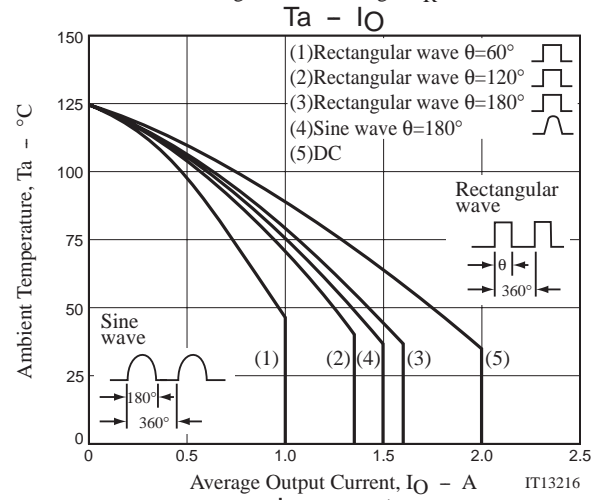
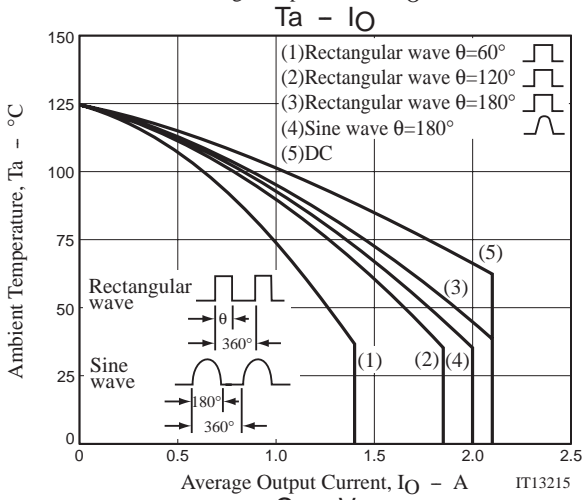
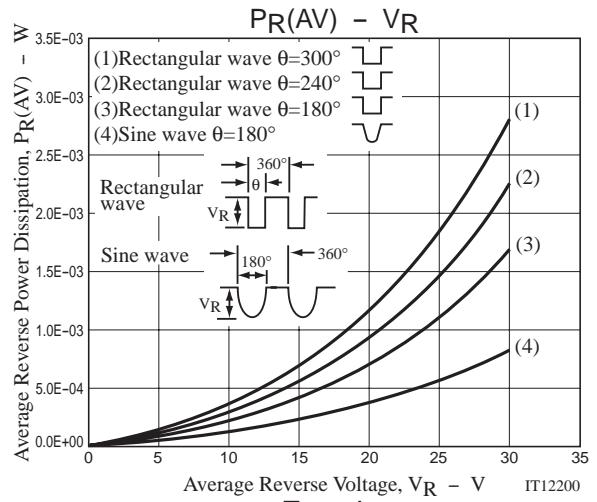
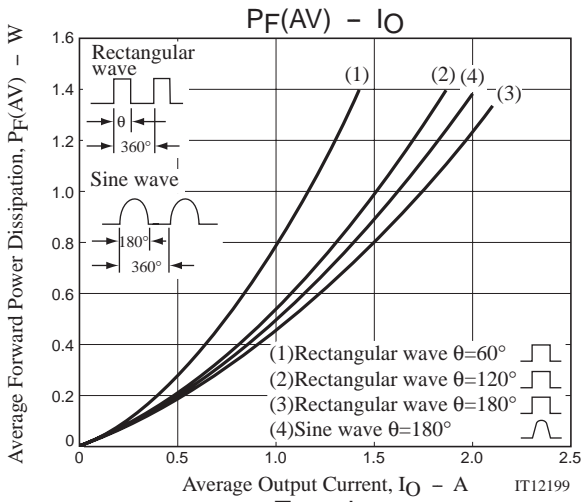
- 1 : Anode1
- 2 : NC
- 3 : Anode2
- 4 : Anode2(NC)
- 5 : Cathode2
- 6 : Cathode2
- 7 : Cathode1
- 8 : Cathode1

Top view

\*: Terminal 4 is used for the purposes such as test. Although it is connected to Anode 2, please handle it as NC Terminal

## t<sub>rr</sub> Test Circuit





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