

**SBE001****30V, 2A Rectifier**

## Applications

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

## Features

- Low forward voltage ( $V_F$  max=0.55V).
- Fast reverse recovery time ( $t_{rr}$  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).

## 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	$V_{RSM}$		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	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +125	$^\circ\text{C}$

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

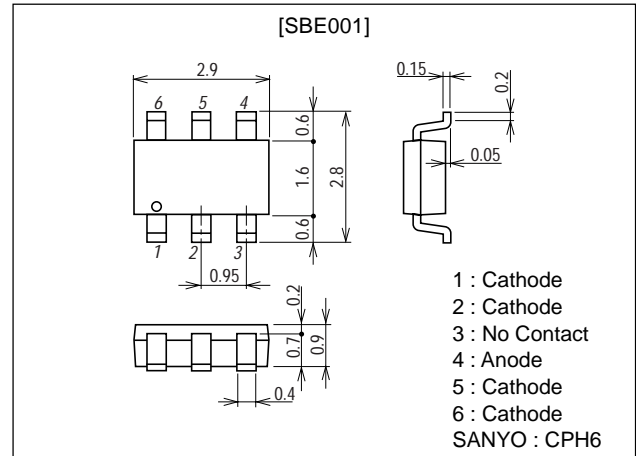
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	$V_R$	$I_R=500\mu\text{A}$	30			V
Forward Voltage	$V_F$	$I_F=2\text{A}$			0.55	V
Reverse Current	$I_R$	$V_R=15\text{V}$			100	$\mu\text{A}$
Interterminal Capacitance	C	$V_R=10\text{V}$ , $f=1\text{MHz}$		70		pF
Reverse Recovery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

Marking : SA

## Package Dimensions

unit:mm

1295



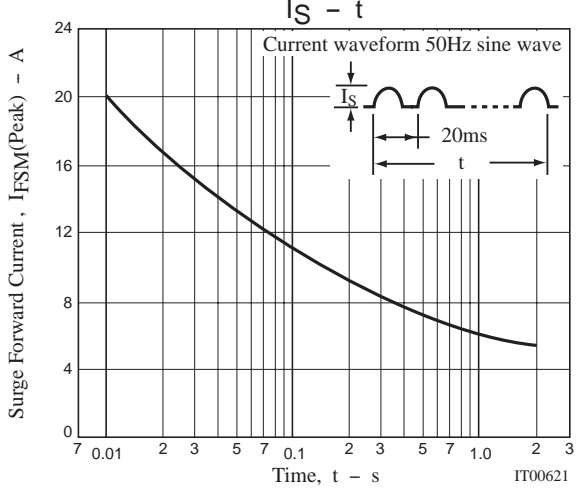
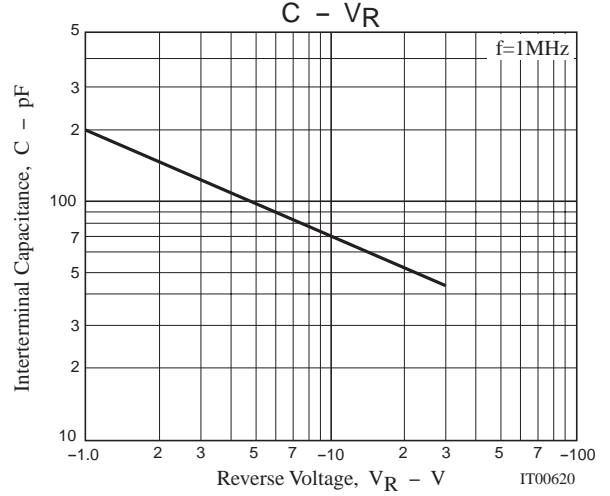
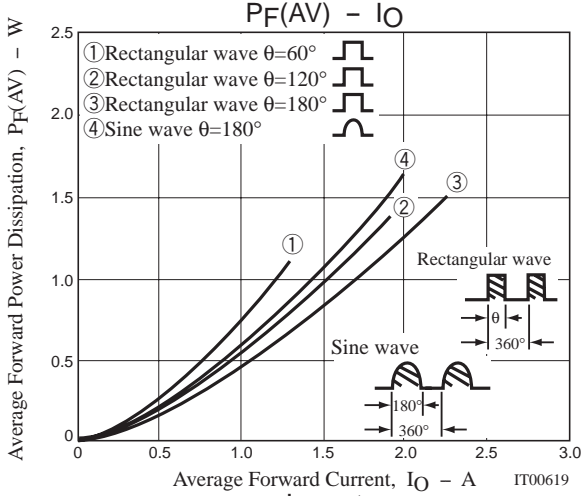
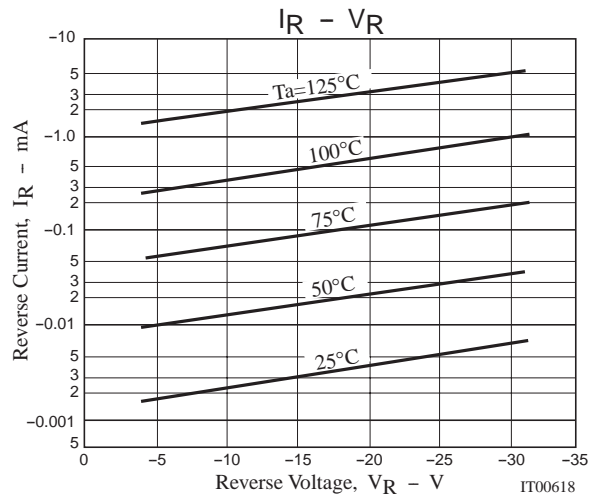
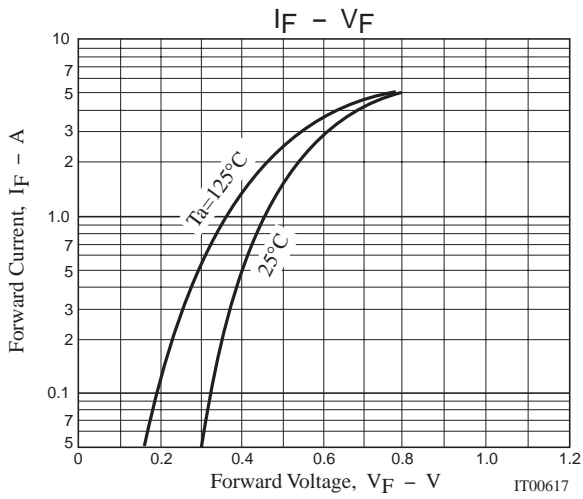
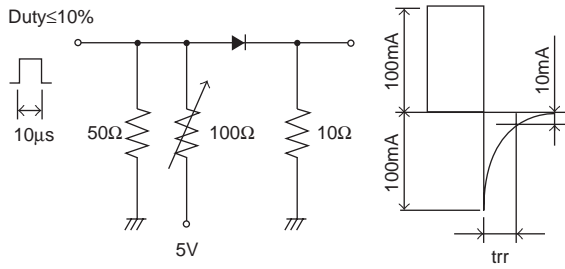
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**SANYO Electric Co., Ltd. Semiconductor Company**

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

**$t_{rr}$  Test Circuit**



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