



SANYO Semiconductors

## DATA SHEET

# SB2003M

 — Schottky Barrier Diode  

## 30V, 2.0A Rectifier

### Applications

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

### Features

- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.
- Ultrasmall package permitting applied sets to be small and slim (mounting height 0.85mm).

### Specifications

#### Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>		30	V
Nonrepetitive Peak Reverse Surge Voltage	V <sub>RSM</sub>		35	V
Average Output Current	I <sub>O</sub>		2.0	A
Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, 1 cycle	10	A
Junction Temperature	T <sub>J</sub>		-55 to +125	°C
Storage Temperature	T <sub>stg</sub>		-55 to +125	°C

#### Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V <sub>R</sub>	I <sub>R</sub> =0.2mA	30			V
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1.0A		0.40	0.45	V
		I <sub>F</sub> =2.0A		0.45	0.50	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =15V			30	μA
Interterminal Capacitance	C	V <sub>R</sub> =10V, f=1MHz		75		pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =100mA, See specified Test Circuit.			20	ns
Thermal Resistance	R <sub>th(j-a)1</sub>	Mounted in Cu-foiled area of 1.44mm <sup>2</sup> ×0.03mm on glass epoxy board		93.4		°C / W
	R <sub>th(j-a)2</sub>	Mounted on a ceramic board (500mm <sup>2</sup> ×0.8mm)		71.4		°C / W

Marking : SE

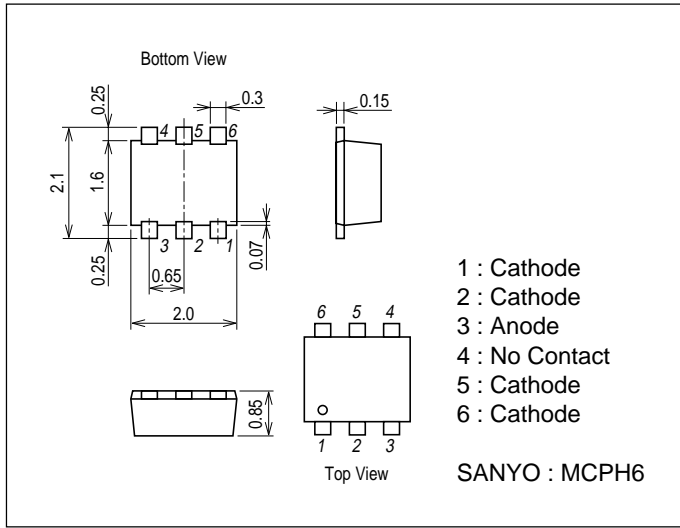
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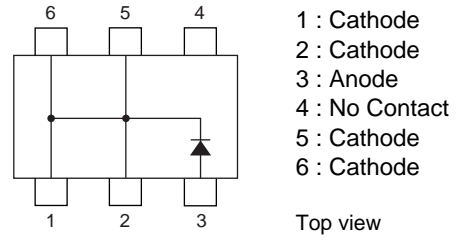
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## Package Dimensions

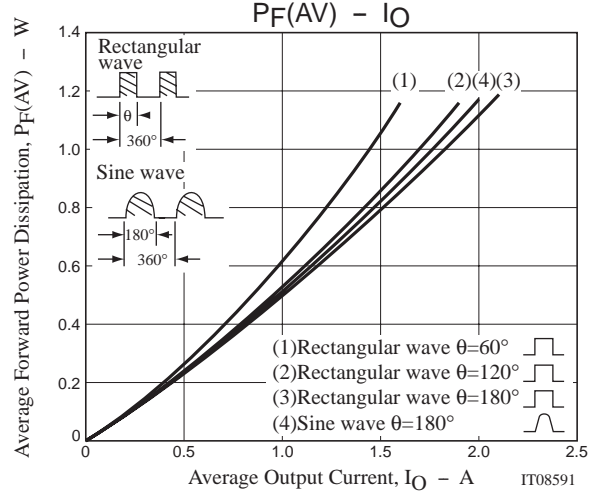
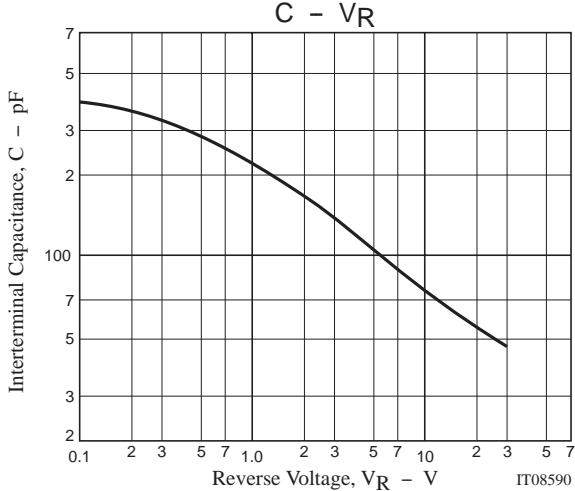
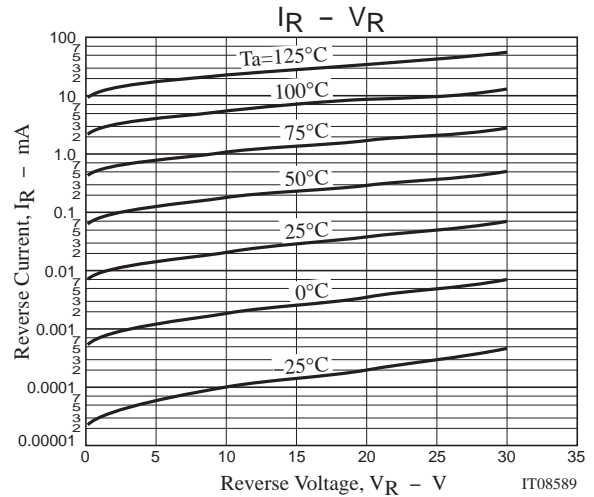
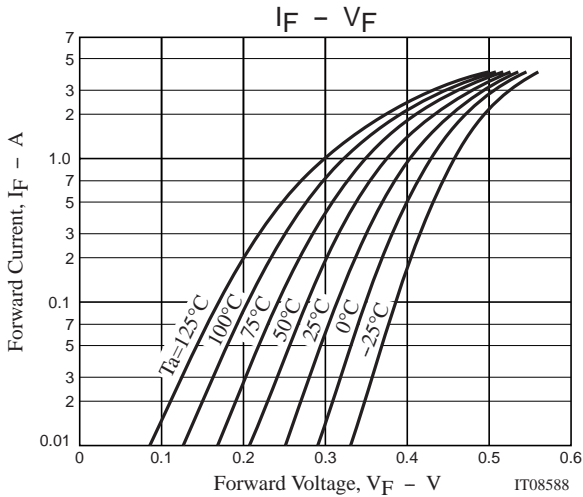
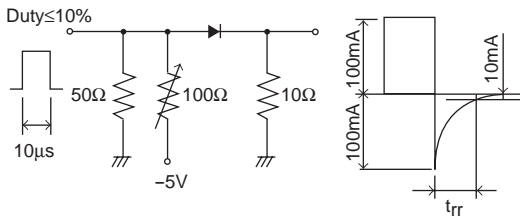
unit : mm  
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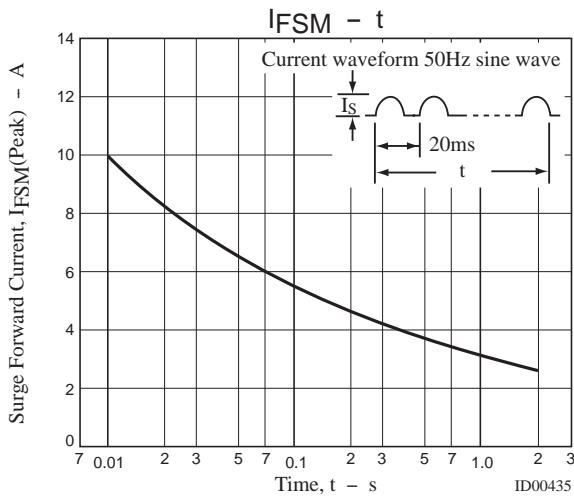
## Electrical Connection



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



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