



SANYO Semiconductors

## DATA SHEET

# SS2003M

 — Schottky Barrier Diode  

## 30V, 2.0A Rectifier

### Applications

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

### Features

- Small Switching noise.
- Low forward voltage ( $I_F=2A$ ,  $V_F \text{ max}=0.40V$ ).
- 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	$I_O$		2.0	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	$V_F$	$I_F=1.0\text{A}$		0.30	0.35	V
		$I_F=2.0\text{A}$		0.35	0.40	V
Reverse Current	$I_R$	$V_R=15\text{V}$			1.25	mA
Interterminal Capacitance	C	$V_R=10\text{V}$ , $f=1\text{MHz}$		75		pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=100\text{mA}$ , See specified Test Circuit.			20	ns
Thermal Resistance	$R_{th(j-a)1}$	Mounted in Cu-foiled area of $1.44\text{mm}^2 \times 0.03\text{mm}$ on glass epoxy board		93.4		$^\circ\text{C} / \text{W}$
	$R_{th(j-a)2}$	Mounted on a ceramic board ( $500\text{mm}^2 \times 0.8\text{mm}$ )		71.4		$^\circ\text{C} / \text{W}$

Marking : SF

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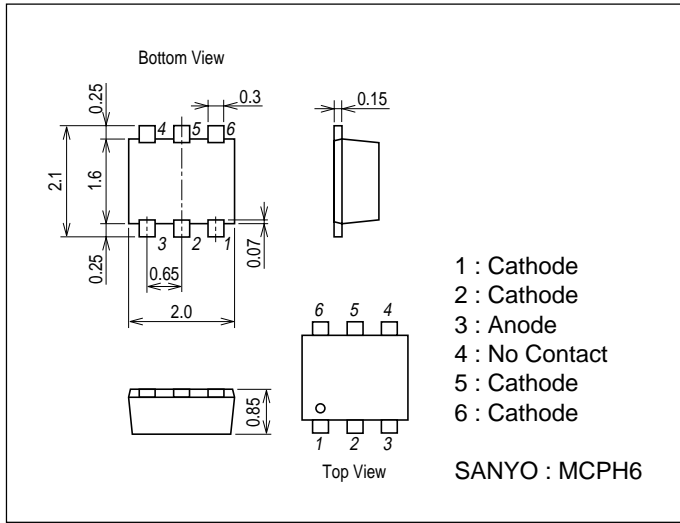
SANYO Electric Co., Ltd. Semiconductor Company

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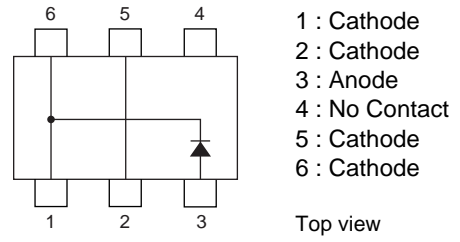
# SS2003M

## Package Dimensions

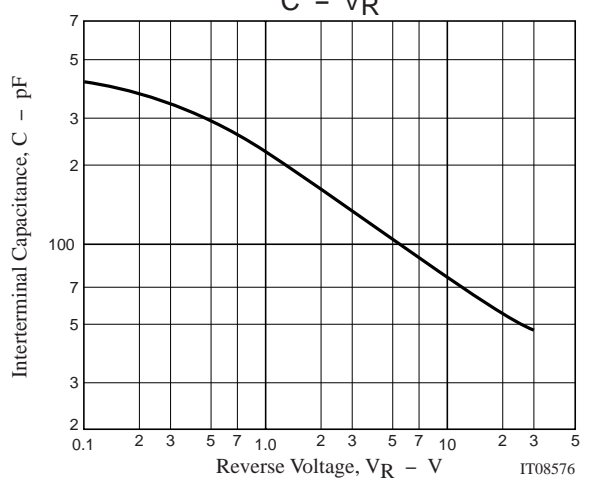
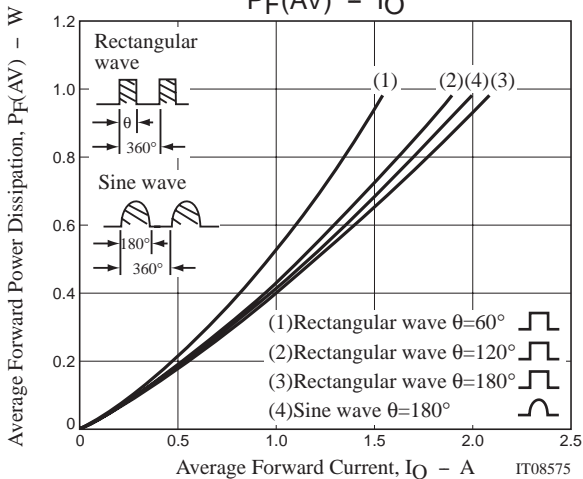
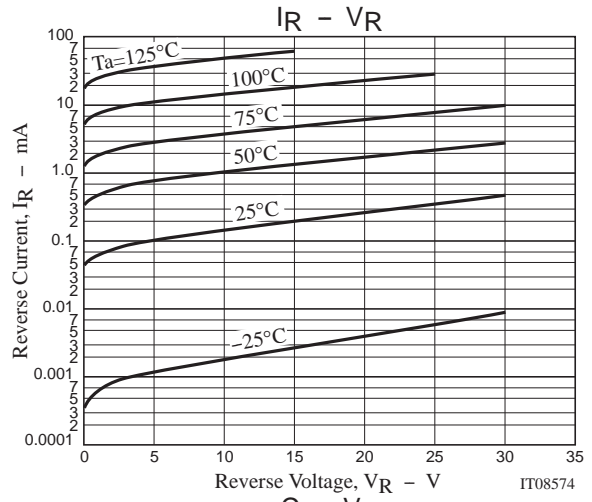
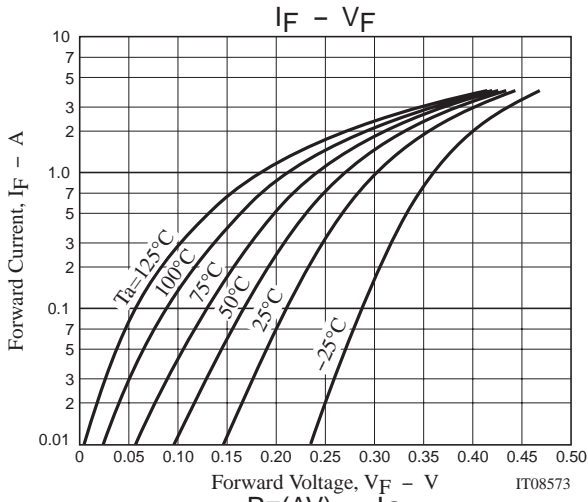
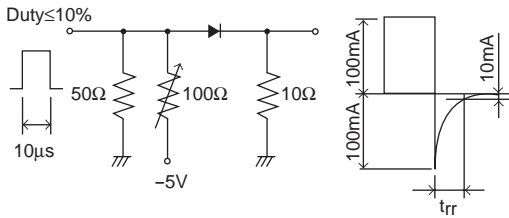
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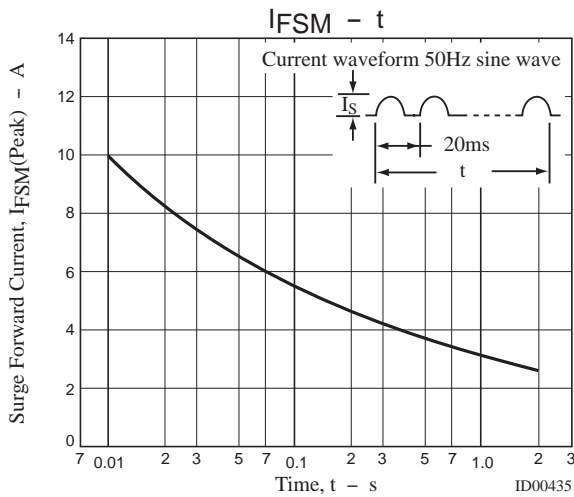


## Electrical Connection



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





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