



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

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	$I_F=1.0A$		0.30	0.35	V
		$I_F=2.0A$		0.35	0.40	V
Reverse Current	I_R	$V_R=15V$			1.25	mA
Interterminal Capacitance	C	$V_R=10V$, $f=1\text{MHz}$		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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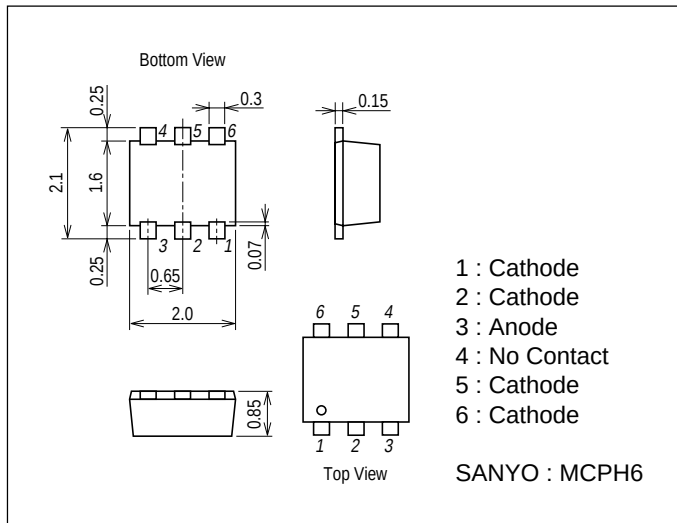
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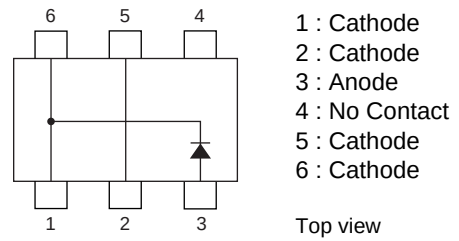
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Package Dimensions

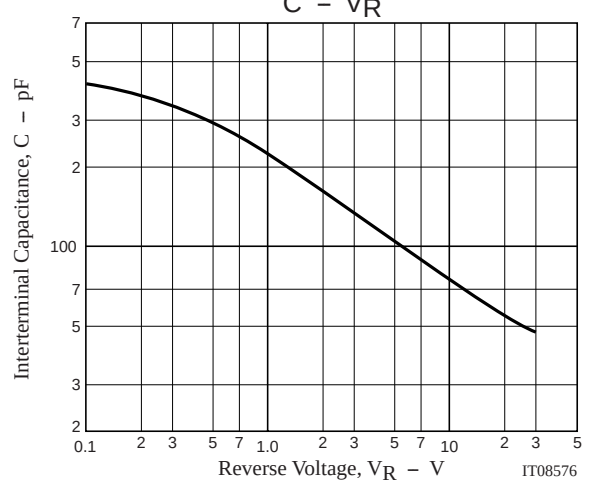
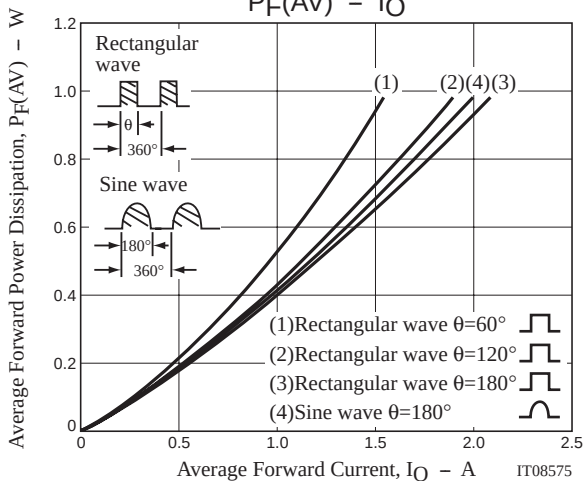
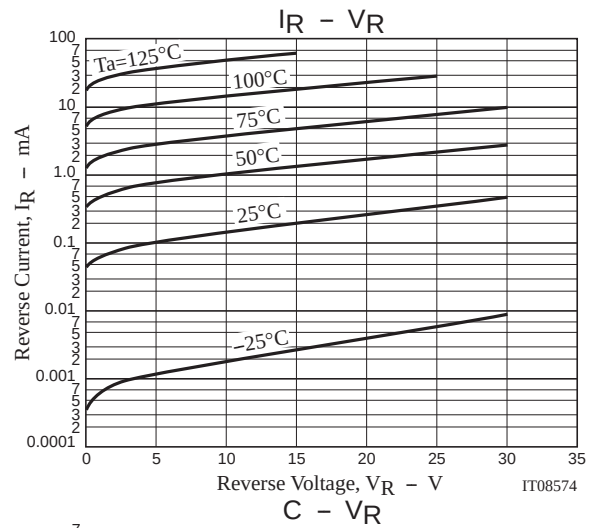
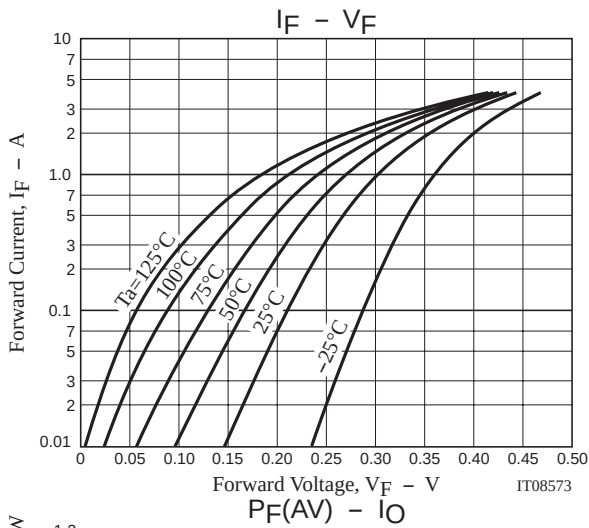
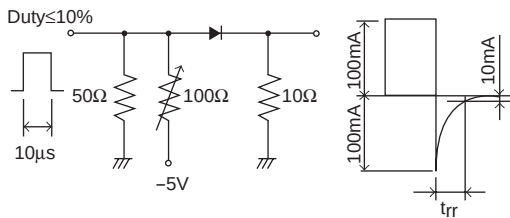
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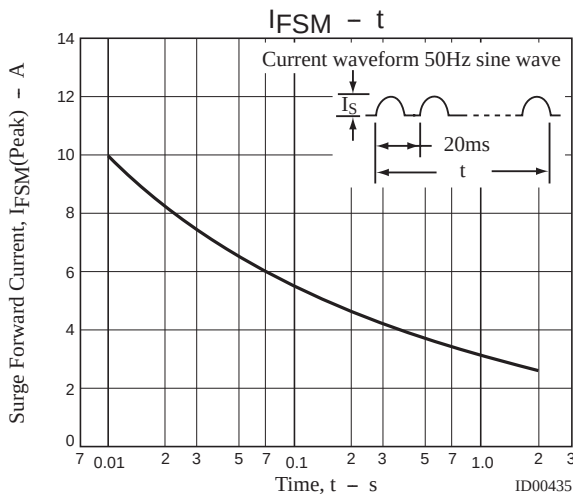


Electrical Connection



t_{rr} Test Circuit





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