



SANYO Semiconductors

DATA SHEET

SS1003M3

 — Schottky Barrier Diode
30V, 1.0A Rectifier

Applications

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

Features

- Low switching noise.
- Low forward voltage ($I_F=1.0A$, $V_F \text{ max}=0.43V$).
- Ultrasmall package permitting applied sets to be small and slim.

Specifications

Absolute Maximum Ratings at $T_a=25^\circ C$

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		1.0	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	10	A
Junction Temperature	T_J		-55 to +125	$^\circ C$
Storage Temperature	T_{stg}		-55 to +125	$^\circ C$

Electrical Characteristics at $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=0.5mA$	30			V
Forward Voltage	V_{F1}	$I_F=0.5A$		0.32	0.37	V
	V_{F2}	$I_F=1.0A$		0.38	0.43	V
Reverse Current	I_R	$V_R=16V$			360	μA
Interterminal Capacitance	C	$V_R=10V$, $f=1MHz$		27		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100mA$, See specified Test Circuit.			10	ns

Marking : SJ

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SS1003M3

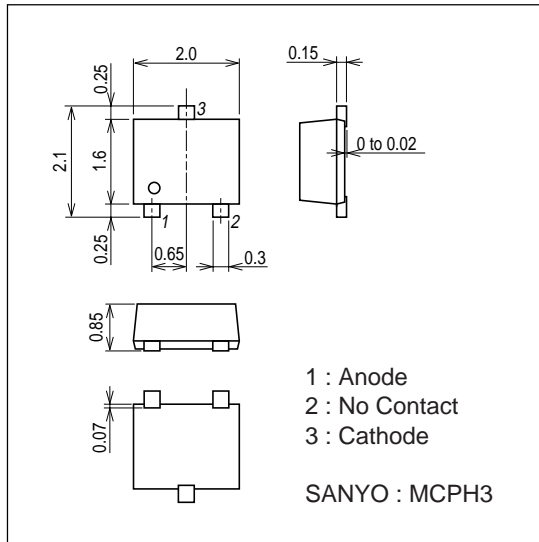
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Thermal Resistance	Rth(j-a)1	Mounted in Cu-foiled area of 0.72mm ² ×0.03mm on glass epoxy board		94.7		°C / W
	Rth(j-a)2	Mounted on a ceramic board (500mm ² ×0.8mm)		67.7		°C / W

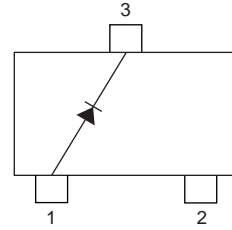
Package Dimensions

unit : mm (typ)

7019A-001



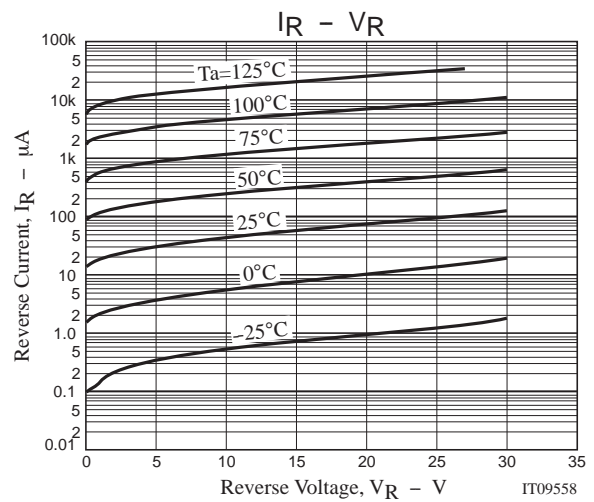
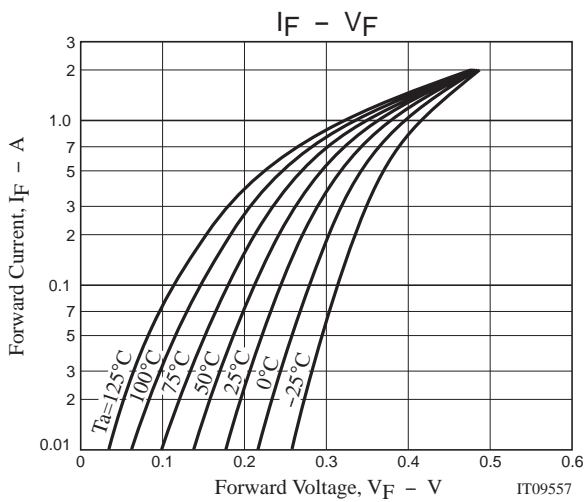
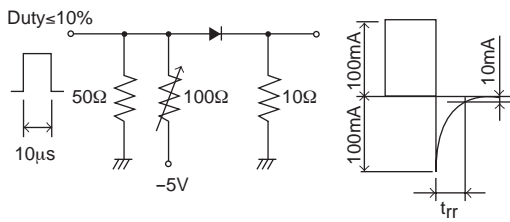
Electrical Connection

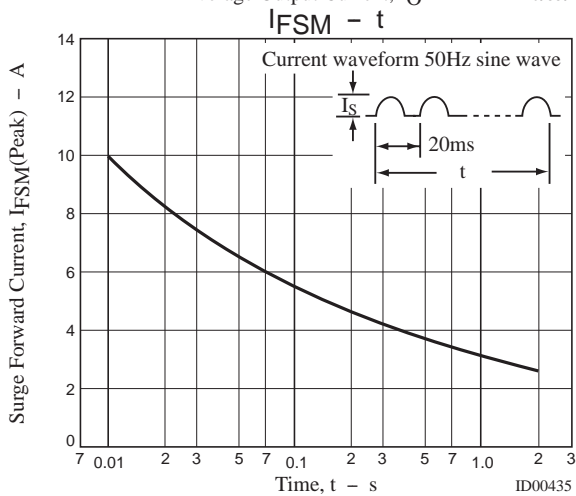
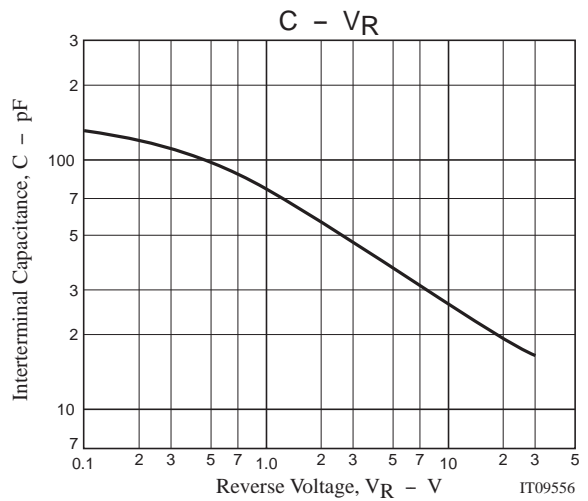
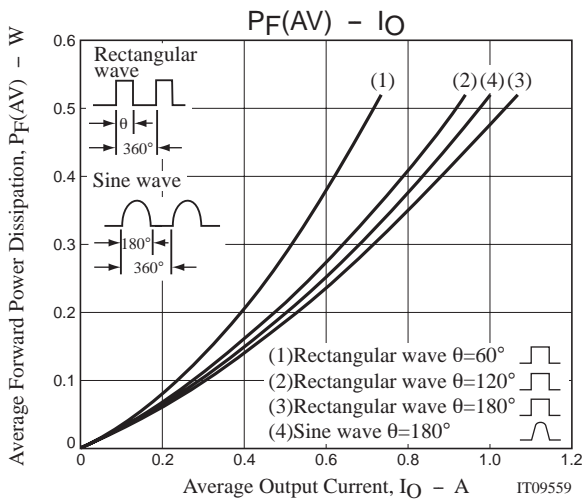


1 : Anode
2 : No Contact
3 : Cathode

Top view

t_{rr} Test Circuit





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