

# SANYO Semiconductors DATA SHEET

# SS20015M-

Low VF Schottky Barrier Diode 15V, 2.0A Rectifier

# **Applications**

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

### **Features**

- · Small switching noise.
- Low forward voltage (IF=2A, VF max=0.43V).
- Ultrasmall package permitting applied sets to be small and slim (mounting height 0.85mm).

## **Specifications**

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

Absolute Maximum Ratings at	Ta=25°C	to the second					
Parameter	Symbol	Conditions	Ratings	Unit			
Repetitive Peak Reverse Voltage	VRRM		15	V			
Nonrepetitive Peak Reverse Surge Voltage	VRSM		15	V			
Average Output Current	IO	Mounted on a ceramic board (500mm <sup>2</sup> X0.8mm)	2.0	А			
Surge Forward Current	IFSM	50Hz sine wave, 1 cycle	10	А			
Junction Temperature	Tj		-55 to +125	°C			
Storage Temperature	Tstg		-55 to +125	°C			

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

Parameter		Symbol	Conditions	Ratings			Unit
				min	typ	max	Unit
Reverse Voltage		VR	IR=3mA	15			V
Forward Voltage		VF	IF=2.0A			0.44	V
Reverse Current		IR	V <sub>R</sub> =6V			325	μΑ
Interterminal Capacitance		С	VR=10V, f=1MHz		27		pF
Reverse Recovery Time		t <sub>rr</sub>	IF=IR=100mA, See specified Test Circuit.			10	ns
Thermal Resistance		Rth(j-a)	Mounted on a ceramic board (500mm <sup>2</sup> X0.8mm)		70		°C / W

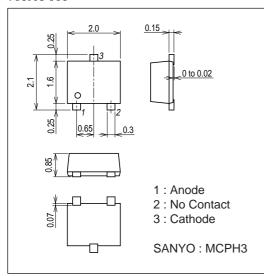
Marking : SP

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#### **Package Dimensions**

unit : mm 7019A-001



100mA

100mA

tr

-10Ω ≲

IF - VF

#### trr Test Circuit

Duty≤10%

10µs

10 7 5

> 3 2

1.0

7 5

3 2

0.1

5

3 2 0.01

1.2

1.0

0.8

0.6

0.4

0.2

0

Rectangular

Sine wave

360

0.5

Forward Current, IF - A

Average Forward Power Dissipation, PF(AV) - W

 $50\Omega \lesssim$ 

₹100Ω

0.2

0.3

Forward Voltage, V<sub>F</sub> - V

PF(AV) - IO

0.4

(1)

(4)Sine wave  $\theta = 180^{\circ}$ 

Average Output Current, IO - A

1.5

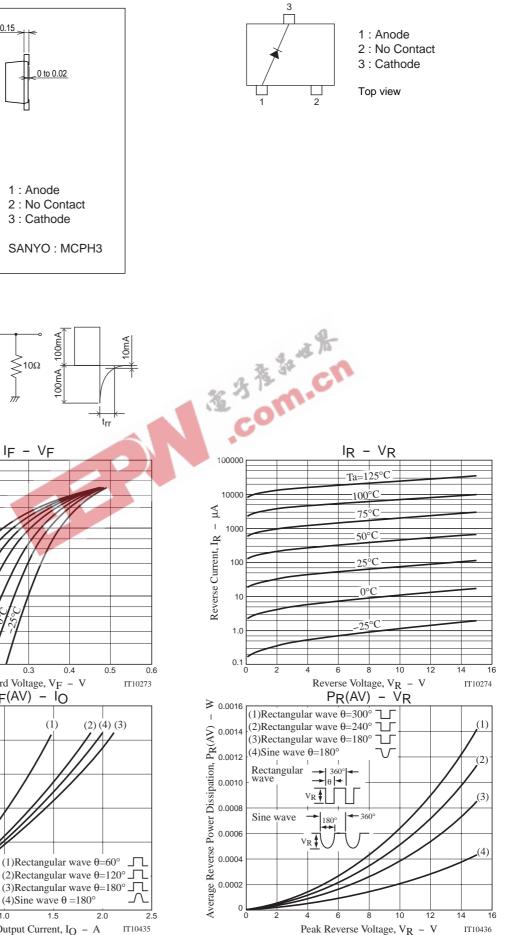
2.0

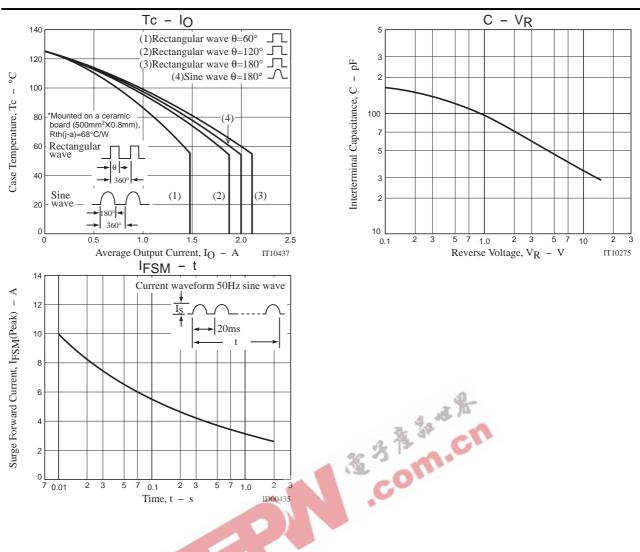
1.0

0.5

-5\

#### **Electrical Connection**





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