



SANYO Semiconductors

# DATA SHEET

An ON Semiconductor Company

## SS0503EC — Low V<sub>F</sub> Schottky Barrier Diode 30V, 0.5A 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.
- Ultraminiature (1008 size) and thin (0.6mm) leadless package.

### Specifications

#### Absolute Maximum Ratings at T<sub>a</sub>=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>		30	V
Average Output Current	I <sub>O</sub>		0.5	A
Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, 1 cycle	5	A
Junction Temperature	T <sub>J</sub>		-55 to +125	°C
Storage Temperature	T <sub>stg</sub>		-55 to +125	°C

#### Electrical Characteristics at T<sub>a</sub>=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>F1</sub>	I <sub>F</sub> =0.1A		0.31	0.36	V
	V <sub>F2</sub>	I <sub>F</sub> =0.5A		0.51	0.56	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =15V			100	μA
Interterminal Capacitance	C	V <sub>R</sub> =10V, f=1MHz		6		pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =100mA, See specified Test Circuit.			10	ns
Thermal Resistance	R <sub>th(j-a)</sub>	Mounted in Cu-foiled area of 0.72mm <sup>2</sup> ×0.03mm on glass epoxy board		70		°C / W

Marking : DB

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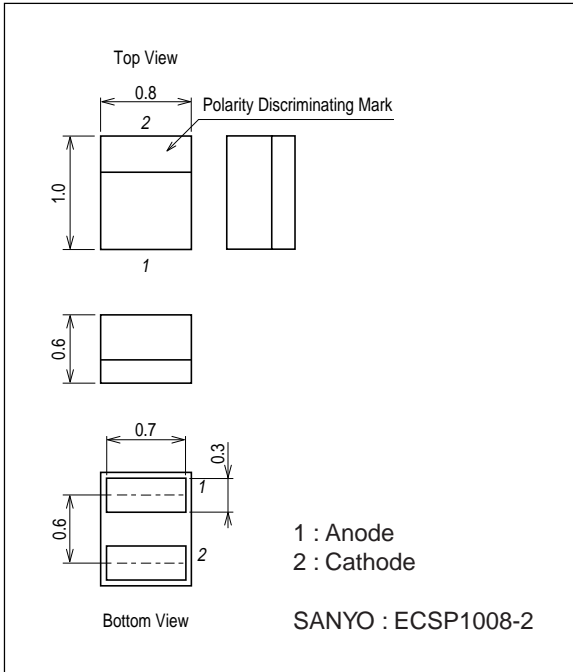
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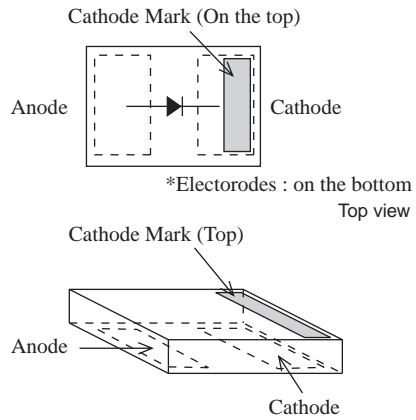
# SS0503EC

## Package Dimensions

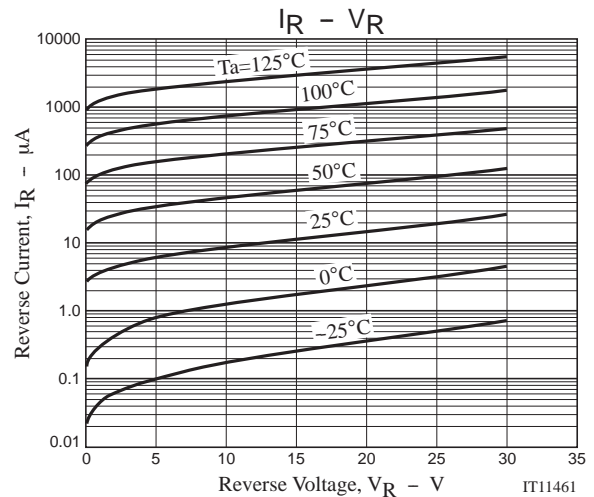
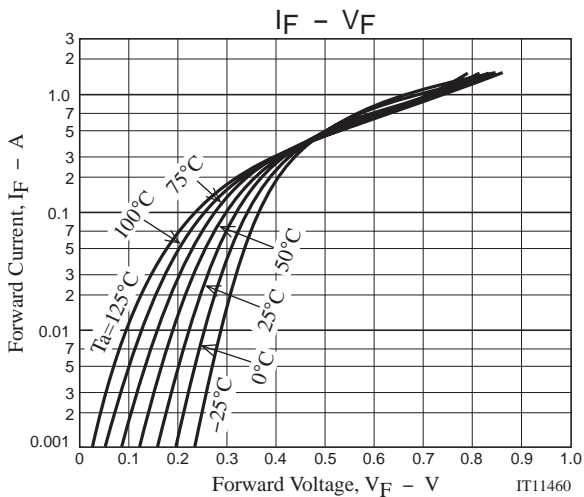
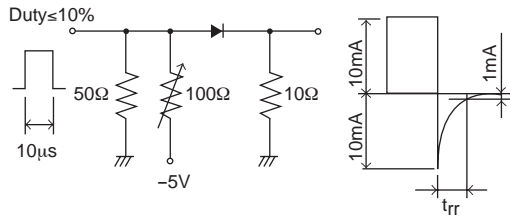
unit : mm (typ)  
7035-002

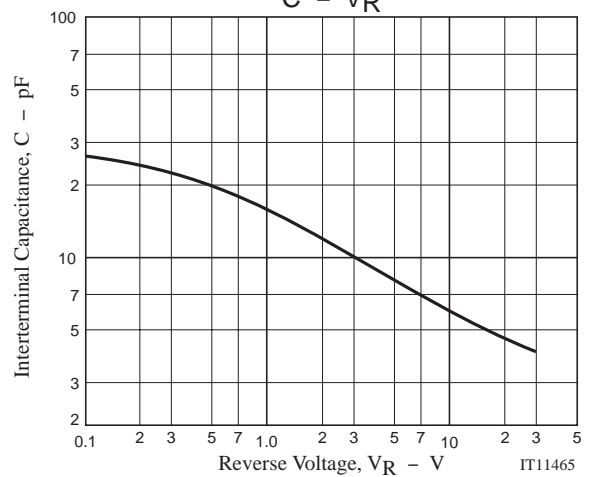
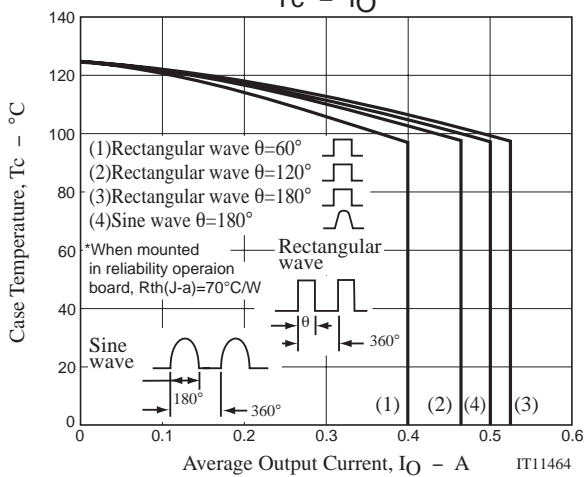
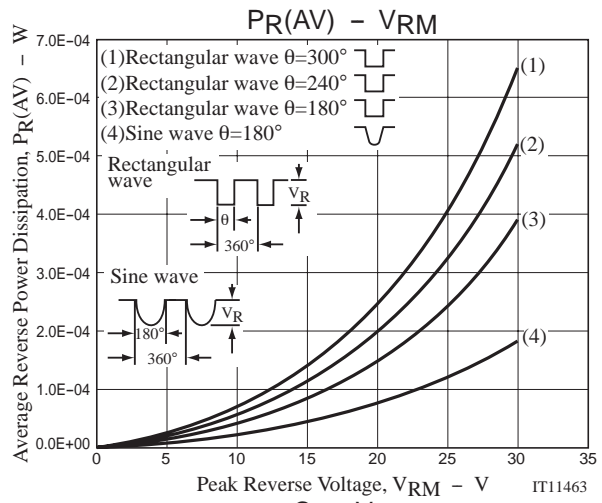
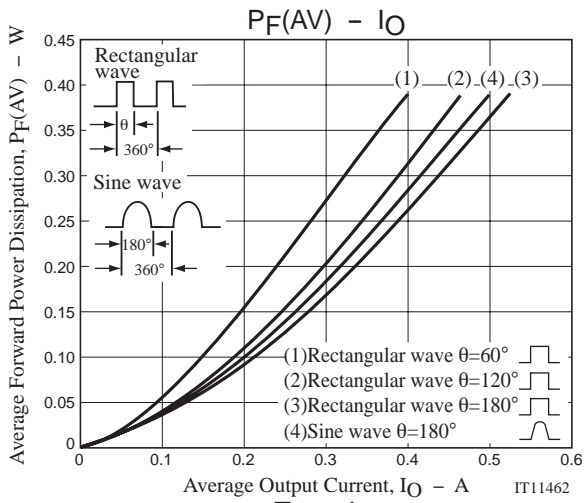


## Electrical Connection



## $t_{rr}$ Test Circuit





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