



SANYO Semiconductors

## DATA SHEET

# SB0503EC

 — Low IR 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 planar structure.
- Ultraminiature (1008 size) and thin (0.6mm) leadless package.

## Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	VRRM		30	V
Nonrepetitive Peak Reverse Surge Voltage	VRSM		35	V
Average Output Current	IO		0.5	A
Surge Forward Current	IFSM	50Hz sine wave, 1 cycle	5	A
Junction Temperature	TJ		-55 to +150	°C
Storage Temperature	Tstg		-55 to +150	°C

### Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	VR	IR=0.2mA	30			V
Forward Voltage	VF	IF=0.5A			0.65	V
Reverse Current	IR	VR=15V			1.5	μA
Interterminal Capacitance	C	VR=10V, f=1MHz		6		pF
Reverse Recovery Time	trr	IF=IR=100mA, See specified Test Circuit.			10	ns
Thermal Resistance	Rth(j-a)	Mounted in Cu-foiled area of 0.72mm <sup>2</sup> X0.03mm on glass epoxy board		200		°C / W

Marking : DA

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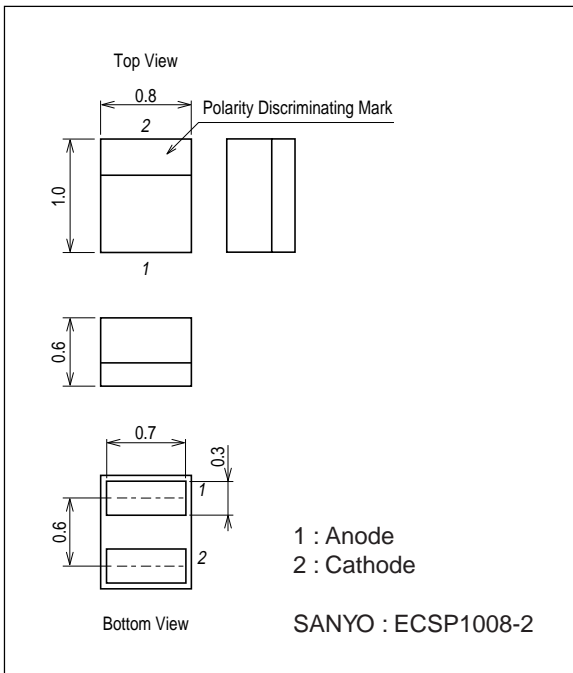
**SANYO Semiconductor Co., Ltd.**

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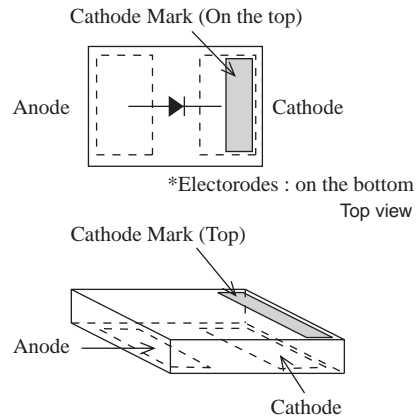
# SB0503EC

## Package Dimensions

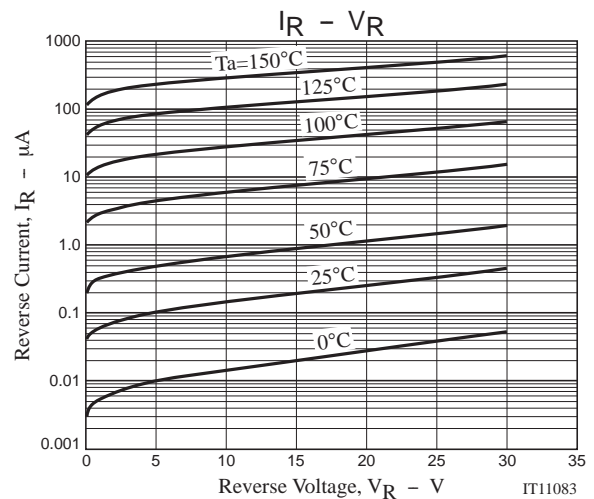
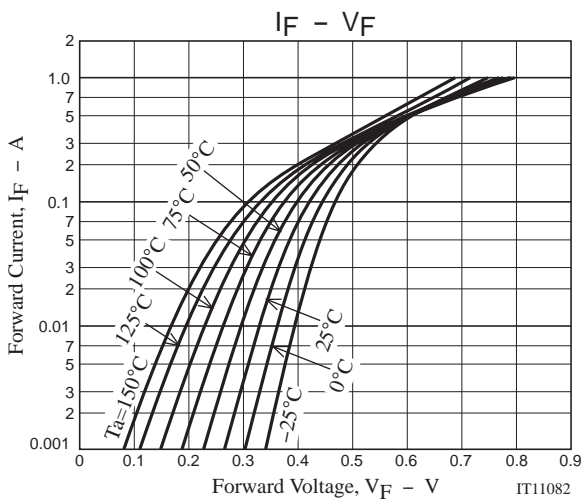
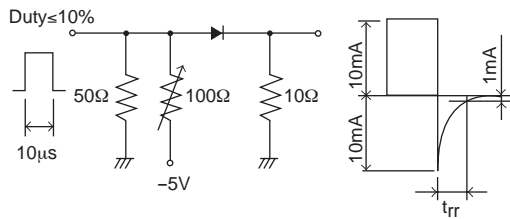
unit : mm (typ)  
7035-002

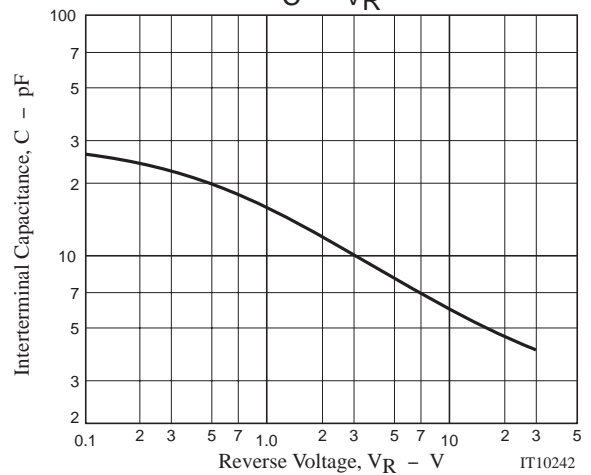
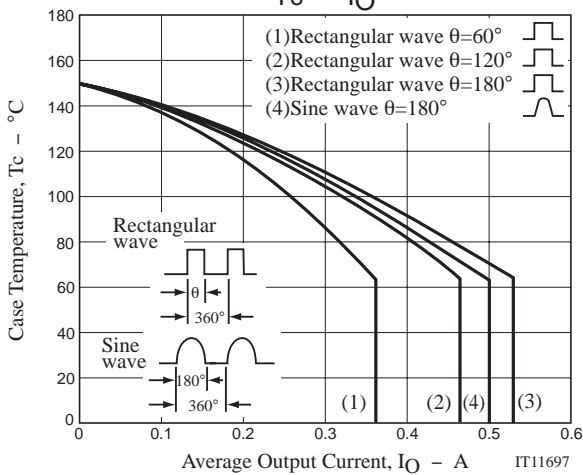
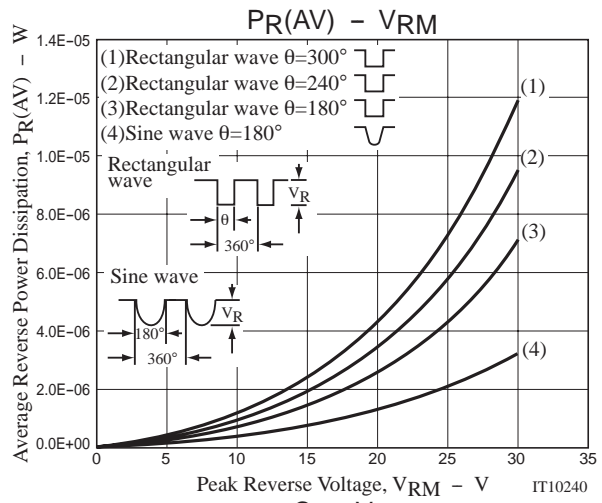
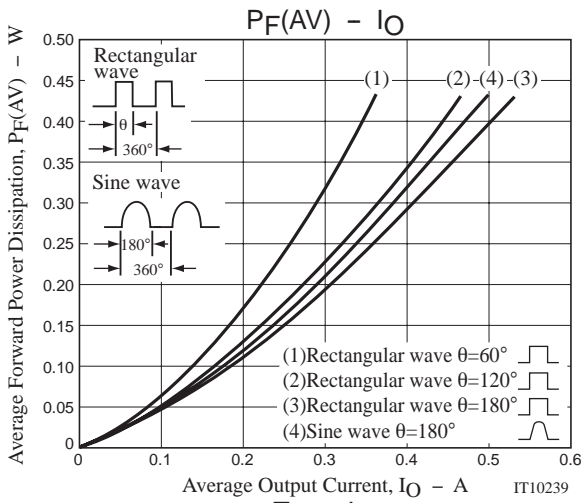


## Electrical Connection



## $t_{rr}$ Test Circuit





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