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SB05-05CP

**Shottky Barrier Diode** 

# 50V, 500mA Rectifier



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

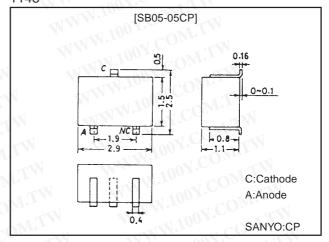
#### **Features**

- · Low forward voltage ( $V_F$  max=0.55V).
- · Fast reverse recorvery time (trr max=10ns).
- · Low switching noise.
- · Low leakage current and high reliability due to highly reliable planar structure.

## **Package Dimensions**

unit:mm

1148



## **Specifications**

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

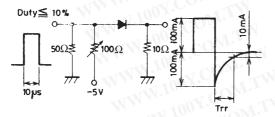
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	W. Cox. Co. TW	-50	V
Nonrepetitive Peak Reverse Surge Voltage	V <sub>RSM</sub>	NN. TOOM.	-55	٧
Average Output Current	Io	100x. ON:IV	500	mA
Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, 1cycle	5	Α
Junction Temperature	Tj	COM.	-55 to +125	°C
Storage Temperature	Tstg	W. 1007.	-55 to +125	°C

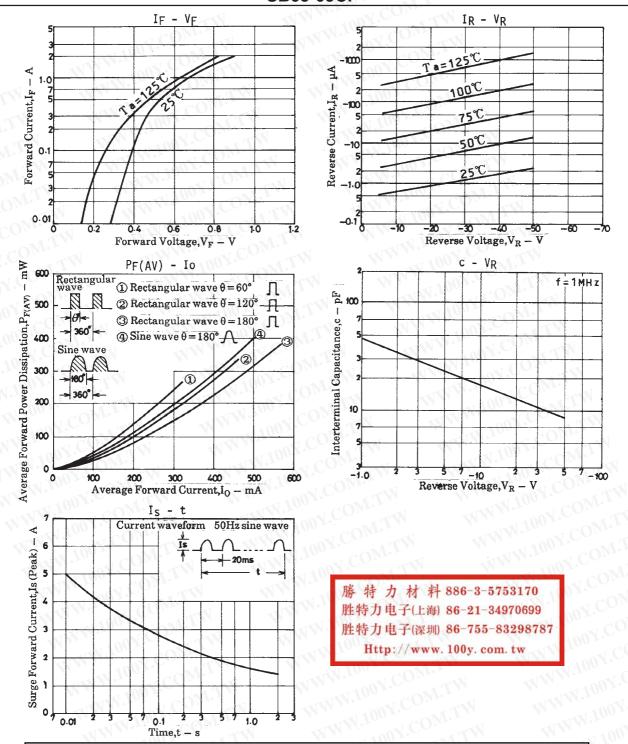
#### Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			1.1-14
			min	typ	max	Unit
Reverse Voltage	$V_{R}$	I <sub>R</sub> =-200μA	<del>-</del> 50		W.In.	V
Forward Voltage	٧ <sub>F</sub>	I <sub>F</sub> =-500mA		MAG	0.55	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =-25V		-NIV	-50	μA
Interterminal Capacitance	С	V <sub>R</sub> =-10V, f=1MHz		17	TIN.	pF
Reverse Recorvery Time	trr	I <sub>F</sub> =I <sub>R</sub> =100mA, See specified Test Circuit			10	ns
Thermal Resistance	Rthj-a(1)	TOW. TO COM.	<b>*</b> I	420		°C/W
	Rthj-a(2)	Mounted on Cu-foild area of 16mm <sup>2</sup> ×0.2mm on glass epoxy board		330		°C/W

#### · Marking:B

#### trr Test Circuit





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