



# SB10W05P

Schottky Barrier Diode (Twin Type · Cathode Common)

## 50V, 1A Rectifier

### Applications

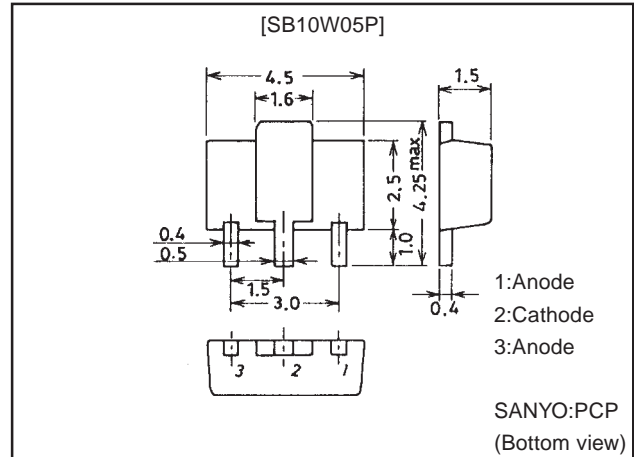
- High frequency rectification (switching regulators, converters, choppers).

### Features

- Low forward voltage ( $V_F \text{ max}=0.55\text{V}$ ).
- Fast reverse recovery time ( $t_{rr} \text{ max}=10\text{ns}$ ).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.

### Package Dimensions

unit:mm  
1222A



### Specifications

Absolute Maximum Ratings at  $T_a = 25^\circ\text{C}$  (Value per element)

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$		50	V
Nonrepetitive Peak Reverse Surge Voltage	$V_{RSM}$		55	V
Average Output Current	$I_O$		1	A
Surge Forward Current	$I_{FSM}$	50Hz sine wave, 1 cycle	10	A
Junction Temperature	$T_j$		-55 to +125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +125	$^\circ\text{C}$

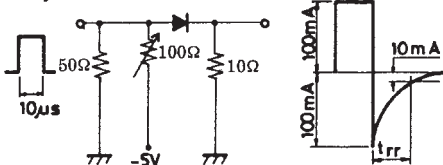
Electrical Characteristics at  $T_a = 25^\circ\text{C}$  (Value per element)

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	$V_R$	$I_R=300\mu\text{A}$	50			V
Forward Voltage	$V_F$	$I_F=1\text{A}$		0.55		V
Reverse Current	$I_R$	$V_R=25\text{V}$			80	$\mu\text{A}$
Interterminal Capacitance	C	$V_R=10\text{V}$ , $f=1\text{MHz}$		52		pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=100\text{mA}$ , See specified Test Circuit.			10	ns
Thermal Resistance	$R_{th(j-a)}$ (1)			280		$^\circ\text{C/W}$
	$R_{th(j-c)}$ (2)	Mounted on $250\text{mm}^2 \times 0.8\text{mm}$ ceramic board		100		$^\circ\text{C/W}$

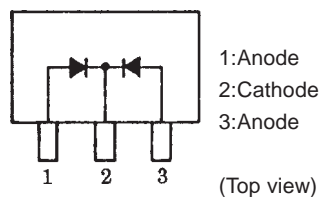
· Marking:SL

### $t_{rr}$ Test Circuit

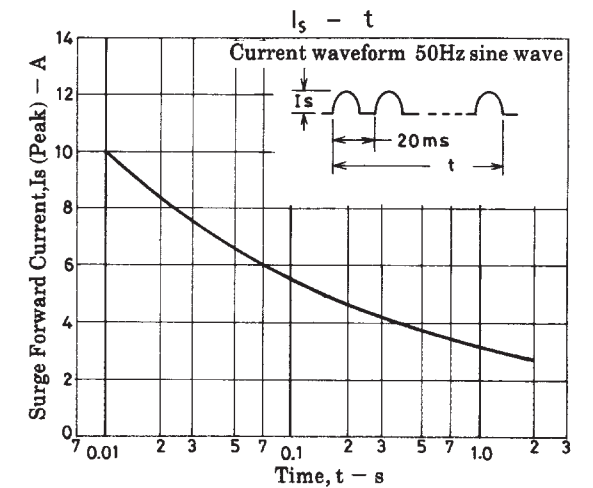
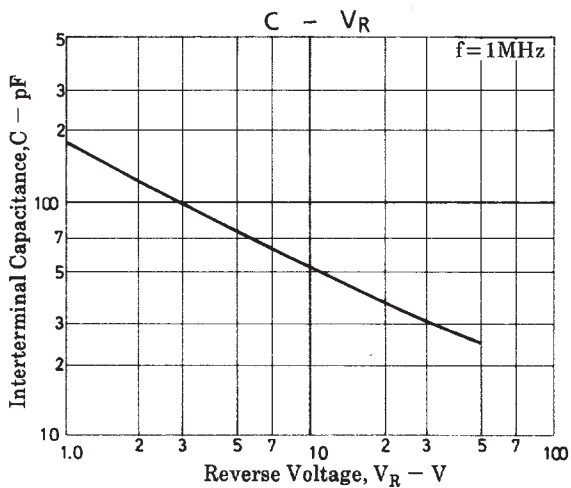
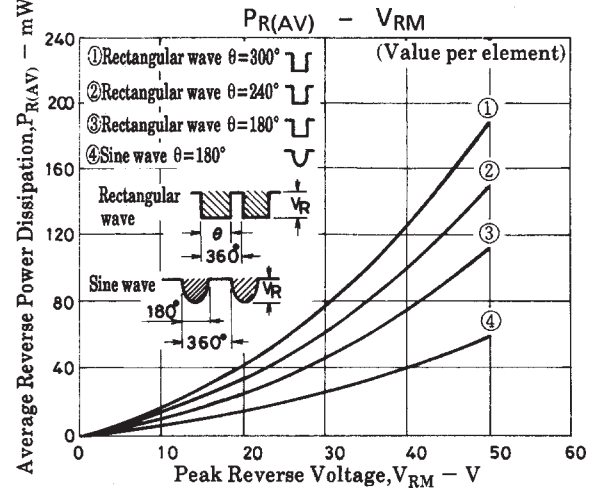
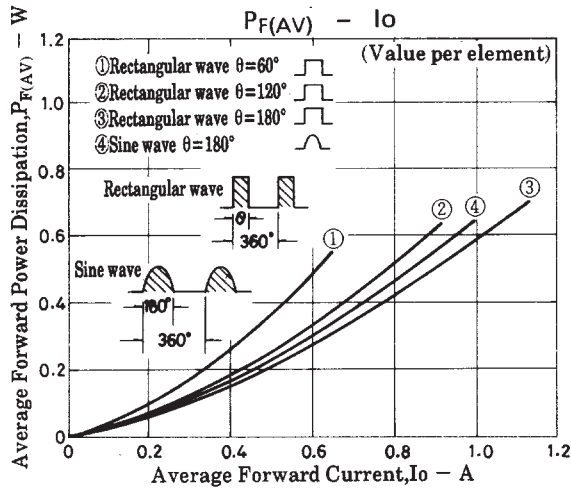
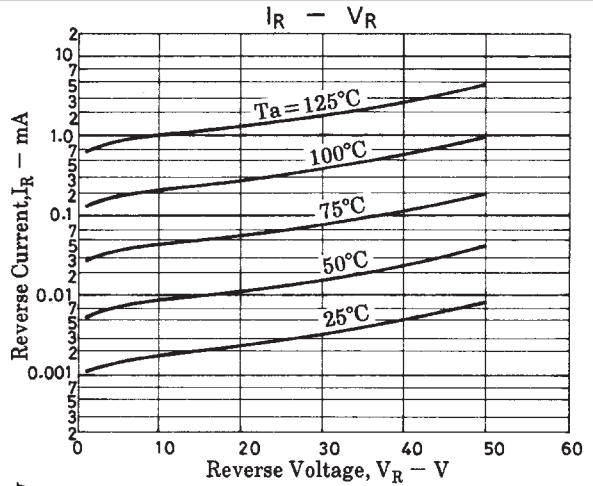
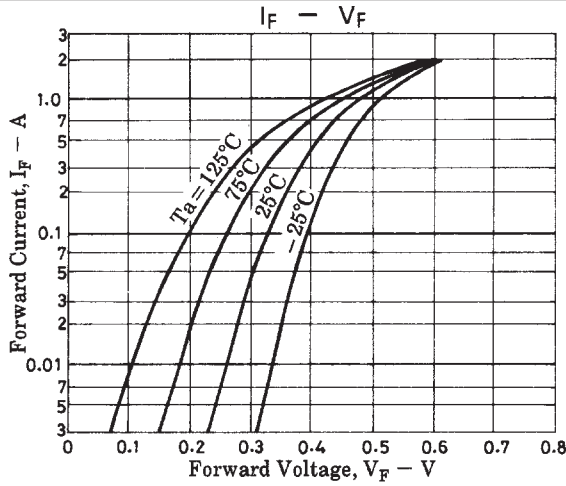
Duty  $\leq 10\%$



### Electrical Connection



# SB10W05P



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