

Schottky Barrier Diode (Twin Type · Cathode Common)



**SB10W05Z**

**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.

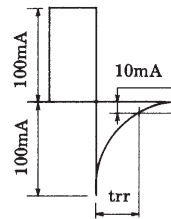
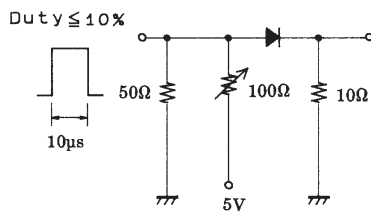
**Absolute Maximum Ratings** at  $T_a=25^\circ\text{C}$  (Value per element)

			unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	50	V
Nonrepetitive Peak Reverse Voltage	$V_{RSM}$	55	V
Surge Voltage			
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)

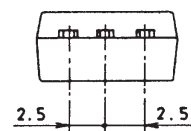
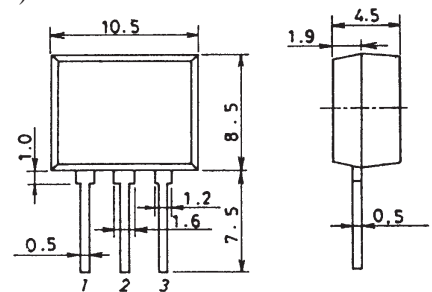
			min	typ	max	unit
Reverse Voltage	$V_R$	$I_R=300\mu\text{A}$	50			V
Forward Voltage	$V_F$	$I_F=1\text{A}$			0.55	V
Reverse Current	$I_R$	$V_R=25\text{V}$			80	$\mu\text{A}$
Interterminal Capacitance	c	$V_R=10\text{V}, f=1\text{MHz}$		52		pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=100\text{mA}$			10	ns
		See specified Test Circuit.				
Thermal Resistance	$R_{thj-a}$			75		$^\circ\text{C/W}$

**$t_{rr}$  Test Circuit**

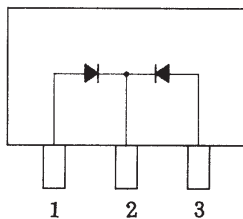


**Package Dimensions** 1243A

(unit : mm)



**Electrical Connection**

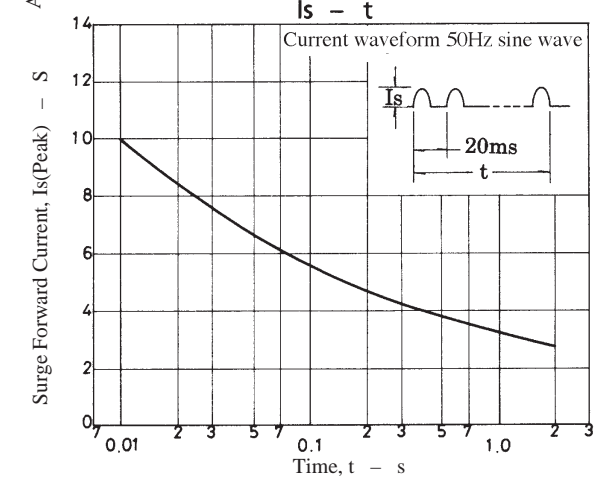
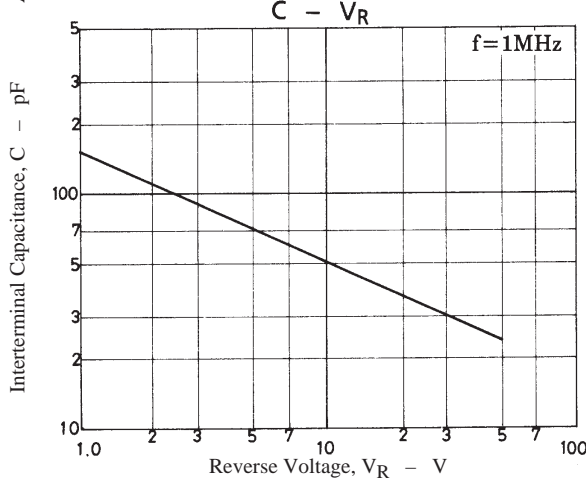
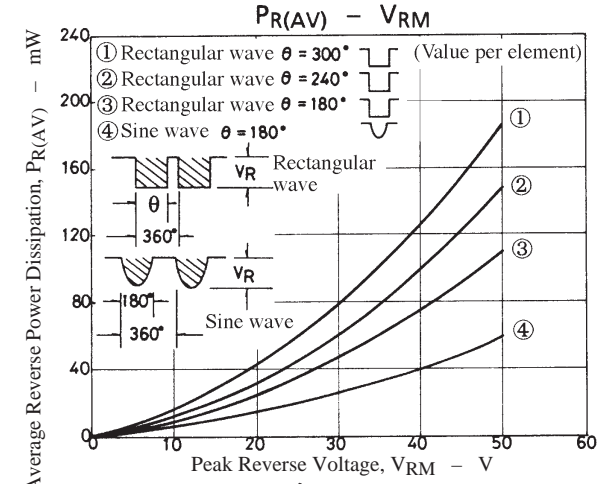
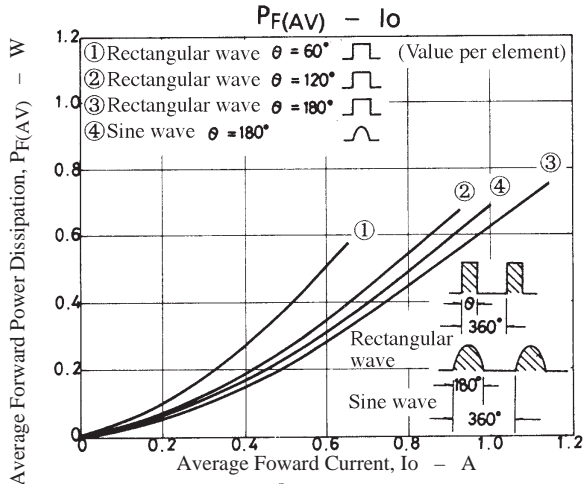
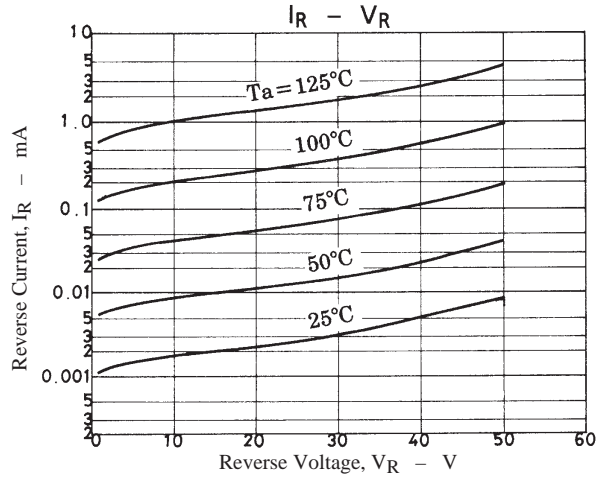
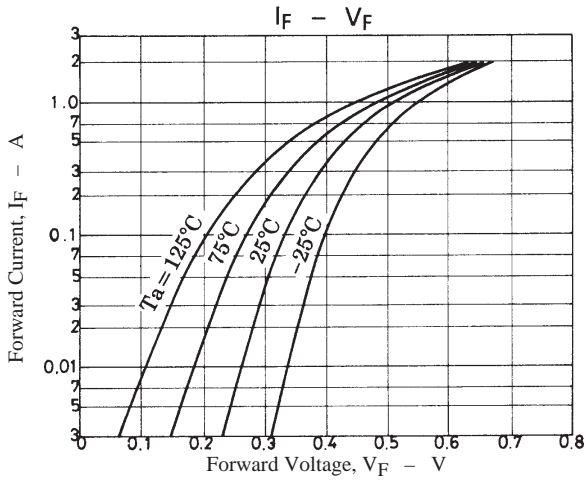


- 1 : Anode
- 2 : Cathode
- 3 : Anode

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# SB10W05Z



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