



**SB05W05V**

**50V, 500mA Rectifier**

**Applications**

- Universal-use rectifier.
- 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.

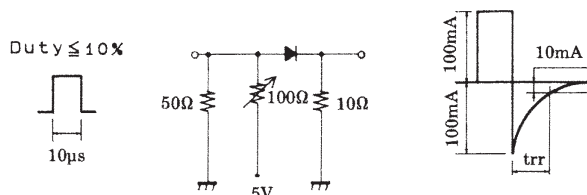
**Absolute Maximum Ratings** at  $T_a=25^\circ\text{C}$  (Value per element)

			unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	50	V
Nonrepetitive Peak Reverse	$V_{RSM}$	55	V
Surge Voltage			
Average Output Current	$I_o$	500	mA
Surge Forward Current	$I_{FSM}$	5	A
		50Hz sine wave, 1 cycle	
Junction Temperature	$T_j$	-55 to +125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

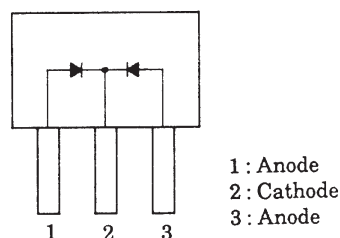
**Electrical Characteristics** at  $T_a=25^\circ\text{C}$  (Value per element)

			min	typ	max	unit
Reverse Voltage	$V_R$	$I_R=200\mu\text{A}$	50			V
Forward Voltage	$V_F$	$I_F=500\text{mA}$			0.55	V
Reverse Current	$I_R$	$V_R=25\text{V}$			50	$\mu\text{A}$
Interterminal Capacitance	C	$V_R=10\text{V}, f=1\text{MHz}$		25		pF
Reverse Recovery Time	$t_{rr}$	$I_F=I_R=100\text{mA}$ , See specified Test Circuit.			10	ns
Thermal Resistance	$R_{thj-a}$			120		$^\circ\text{C/W}$

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

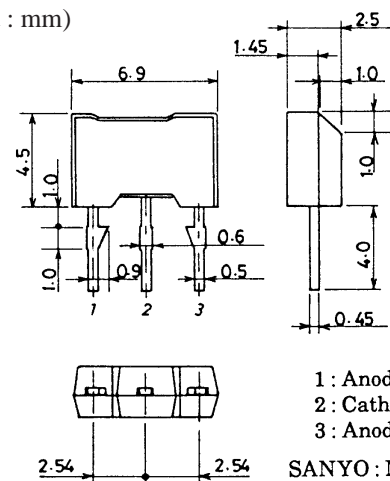


**Electrical Connection**



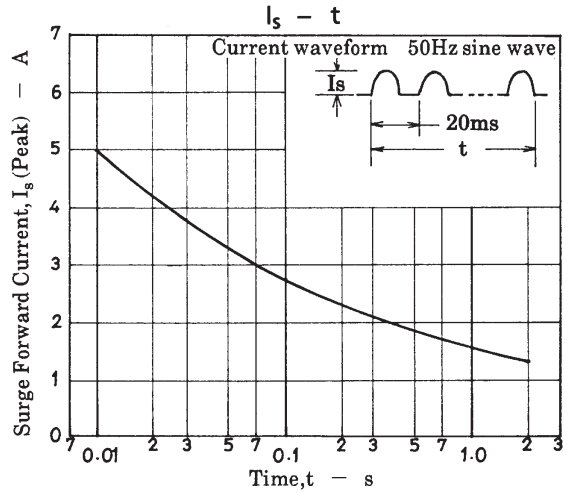
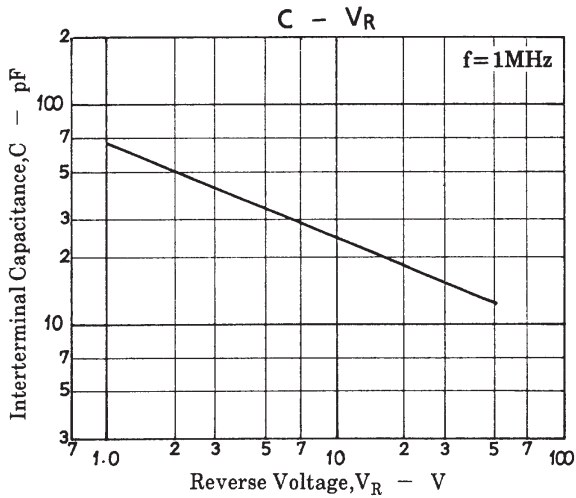
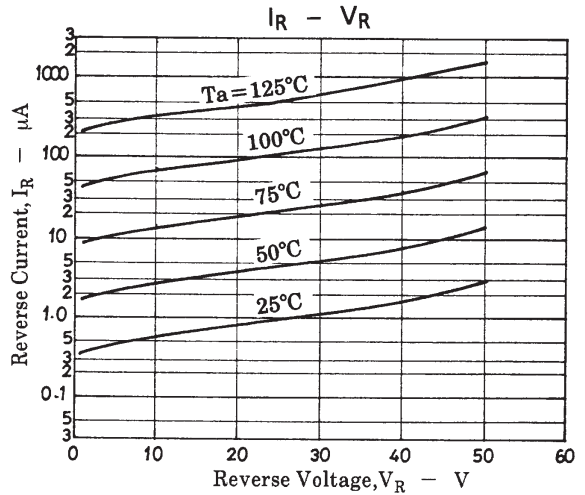
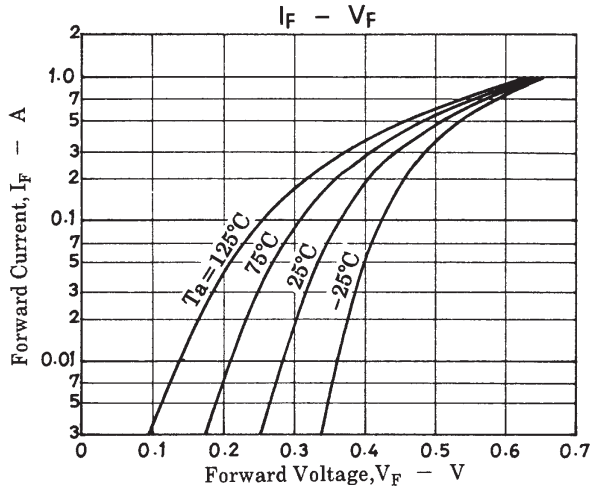
**Package Dimensions** 1148A

(unit : mm)



1 : Anode  
2 : Cathode  
3 : Anode  
SANYO : NMP

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