Schottky Barrier Diode (Twin Type · Cathode Common)



# **SB05W05V**

# 50V, 500mA Rectifier

## **Applications**

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

#### **Features**

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

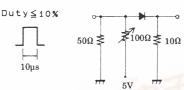
### **Absolute Maximum Ratings** at Ta=25°C (Value per element)

Repetitive Peak Reverse Voltage	$V_{RRM}$		50	V
Nonrepetitive Peak Reverse	V <sub>RSM</sub>		55	V
Surge Voltage				
Average Output Current	Io		500	mA
Surge Forward Current	IFSM	50Hz sine wave, 1 cycle	5	A
Junction Temperature	Tj		-55 to $+125$	$^{\circ}\mathrm{C}$
Storage Temperature	Tstg		-55 to $+125$	$^{\circ}\mathrm{C}$

## **Electrical Characteristics** at Ta=25°C (Value per element)

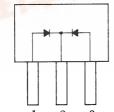
<b>lectrical Characteristics</b> at Ta=25°C (Value per element)			min	typ	max	unit
Reverse Voltage	$v_R$	I <sub>R</sub> =200μA	50			V
Forward Voltage	$v_F$	I <sub>F</sub> =500mA			0.55	V
Reverse Current	$I_{\mathbf{R}}$	V <sub>R</sub> =25V			50	μΑ
Interterminal Capacitance	C	$V_R=10V$ , $f=1MHz$		25		pF
Reverse Recovery Time	trr	$I_F=I_R=100$ mA,			10	ns
		See specified Test Circuit.				
Thermal Resistance	Rthj-a			120		°C/W

### trr Test Circuit



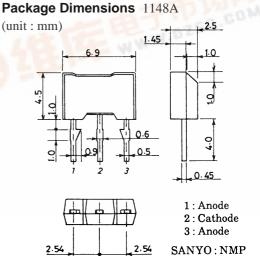
**Erectrical Connection** 

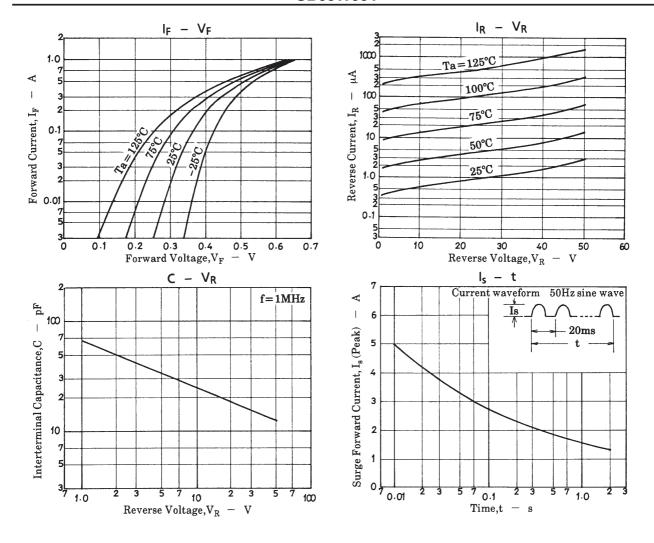




1: Anode 2: Cathode 3: Anode

#### Package Dimensions 1148A





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