

# SB05-18M

Schottky Barrier Diode

# 180V, 500mA Rectifier

### **Applications**

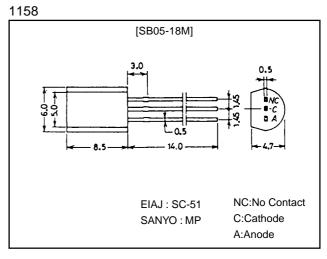
• High frequency rectification (switching regulators, converters, choppers).

### **Features**

- · Low forward voltage (V<sub>F</sub> max=0.85V).
- Fast revese recovery time ( $t_{rr}$  max=20ns).
- · Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.

## **Package Dimensions**

unit:mm



## **Specifications**

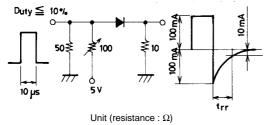
### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	VRRM		180	V
Non-repetitive Peak Reverse Surge Voltage	VRSM		190	V
Average Output Current	IO	50Hz resistive load, Ta=26°C	500	mA
Surge Forward Current	IFSM	50Hz sine wave, 1 cycle	10	A
Junction Temperature	Tj		-55 to +125	°C
Storage Temperature	Tstg		-55 to +125	°C

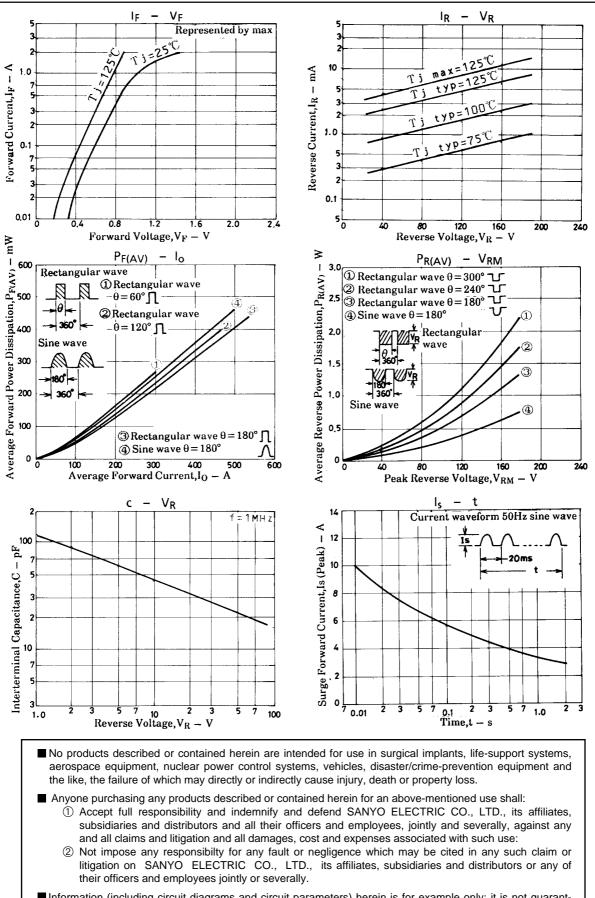
### **Electrical Characteristics at Ta = 25°C**

Parameter	Symbol	Conditions	Ratings			Unit
	Symbol		min	typ	max	Onit
Reverse Voltage	VR	I <sub>R</sub> =500μA	180			V
Forward Voltage	VF	I <sub>F</sub> =500mA			0.85	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =90V			60	μA
Interterminal Capacitance	С	V <sub>R</sub> =10V, f=1MHz		45		pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =100mA, See specified Test Circuit			20	ns
Thermal Resistance	Rth(j-a)			85		°C/W

#### t<sub>rr</sub> Test Circuit



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