



# SB10-09T

Schottky Barrier Diode

## 90V, 1A Rectifier

### Applications

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

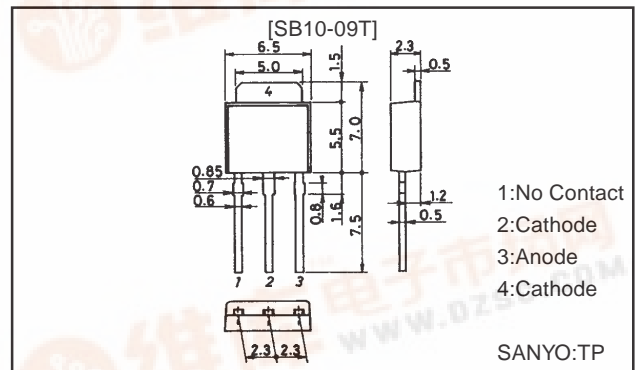
### Features

- Low forward voltage ( $V_F$  max=0.7V).
- Fast reverse recovery time ( $t_{rr}$  max=20ns).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.

### Package Dimensions

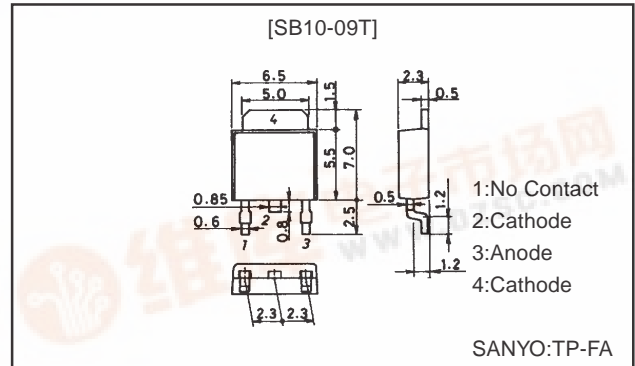
unit:mm

1255A

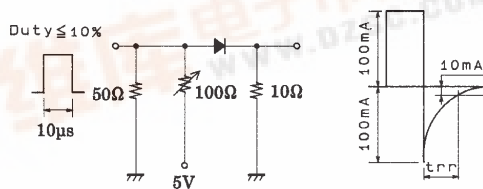


unit:mm

1256A



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



### Specifications

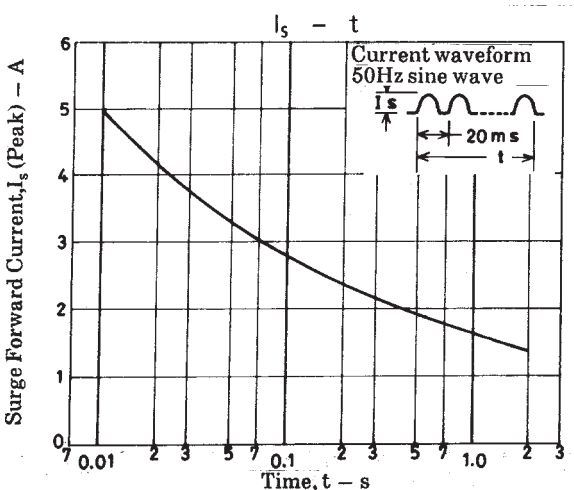
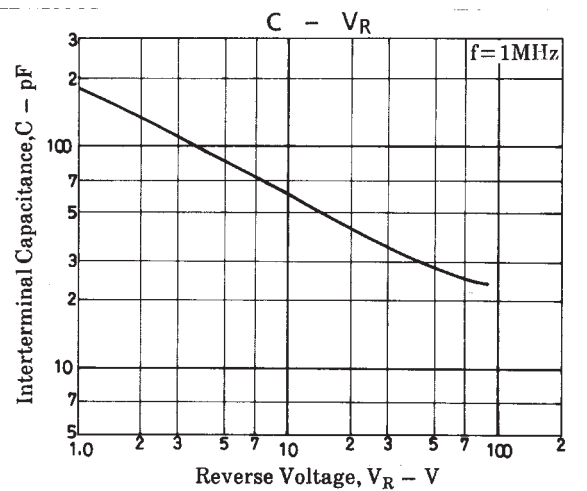
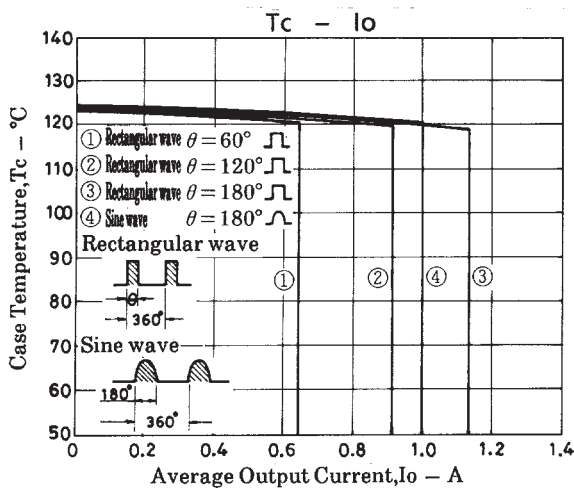
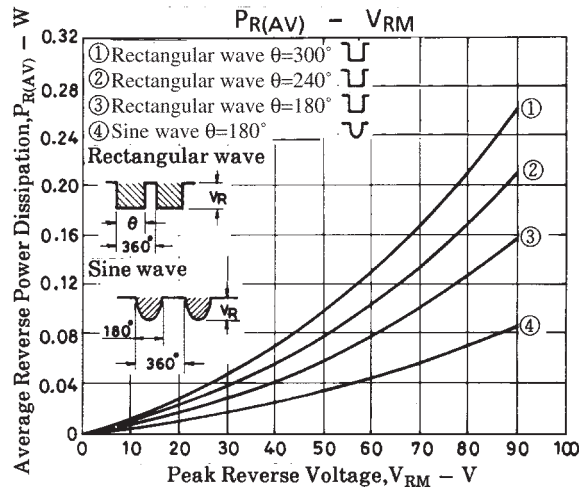
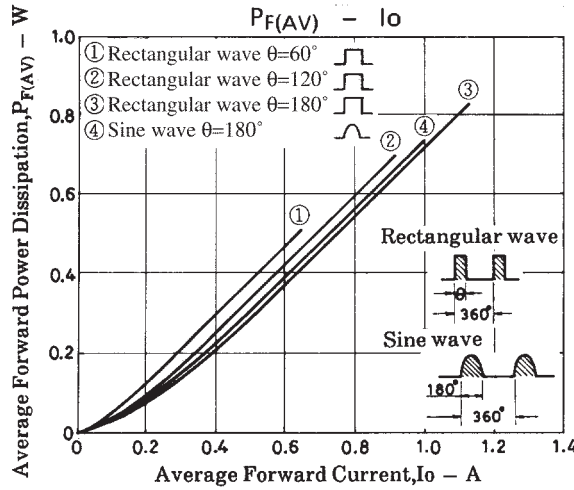
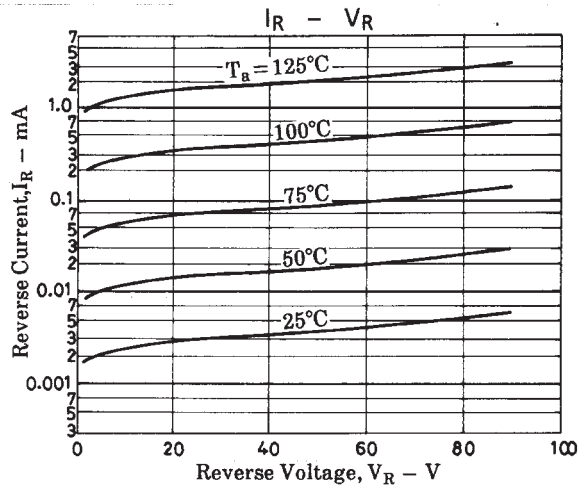
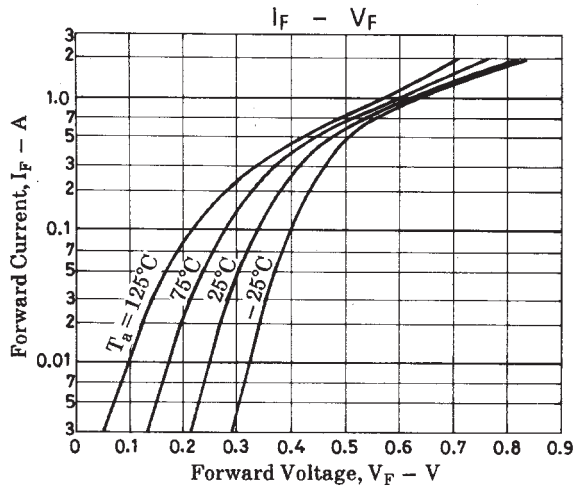
#### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>		90	V
Nonrepetitive Peak Reverse Surge Voltage	V <sub>RSM</sub>		95	V
Average Output Current	I <sub>O</sub>	50Hz resistive load, T <sub>c</sub> =120°C	1	A
Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, 1 cycle	10	A
Junction Temperature	T <sub>J</sub>		-55 to +125	°C
Storage Temperature	T <sub>stg</sub>		-55 to +125	°C

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V <sub>R</sub>	I <sub>R</sub> =1mA	90			V
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1A			0.7	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =45V			200	$\mu$ A
Interterminal Capacitance	C	V <sub>R</sub> =10V, f=1MHz		70		pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =100mA, See specifaied Test Circuit.			20	ns
Thermal Resistance (Junction-Ambient)	R <sub>th(j-a)</sub>			90		°C/W
Thermal Resistance (Junction-Case)	R <sub>th(j-c)</sub>			6		°C/W

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