

**SB05-05NP**

Shottky Barrier Diode

50V, 500mA Rectifier

Applications

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

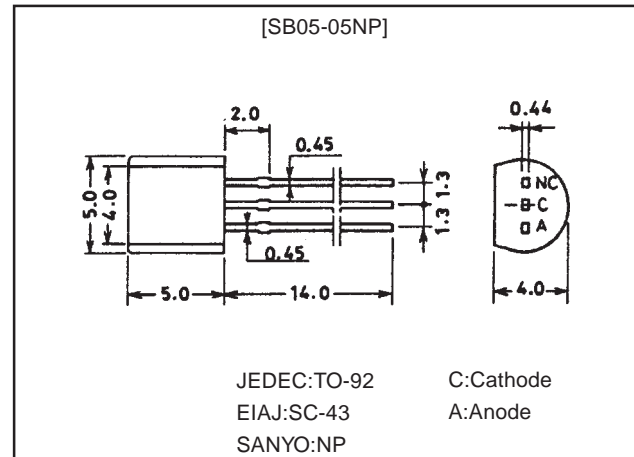
Features

- Low forward voltage (V_F max=0.55V).
- Fast reverse recovery time (t_{rr} max=10ns).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.

Package Dimensions

unit:mm

1157



Specifications

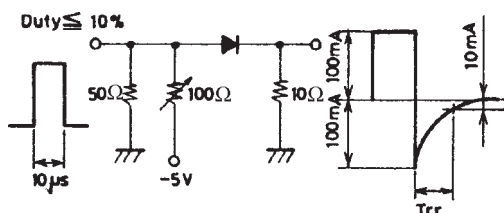
Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		-50	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		-55	V
Average Output Current	I_O	50Hz, resistive load, $T_a=53^\circ\text{C}$	500	mA
Surge Forward Current	I_{FSM}	50Hz sine wave, 1cycle	5	A
Junction Temperature	T_j		-55 to +125	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +125	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
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	μA
Interterminal Capacitance	C	$V_R=-10\text{V}$, $f=1\text{MHz}$		18		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100\text{mA}$, See specified Test Circuit			10	ns
Thermal Resistance	R_{thj-a}			165		$^\circ\text{C/W}$

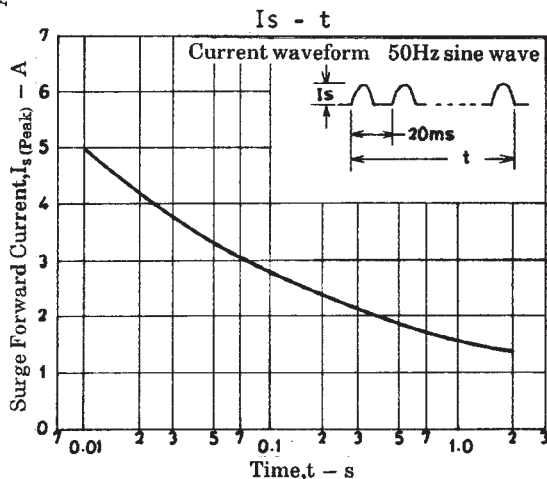
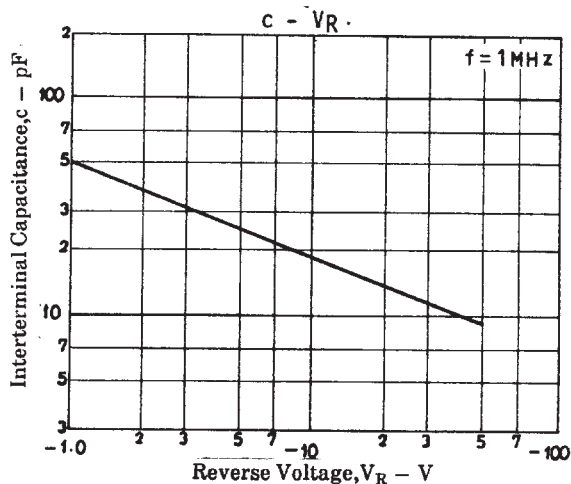
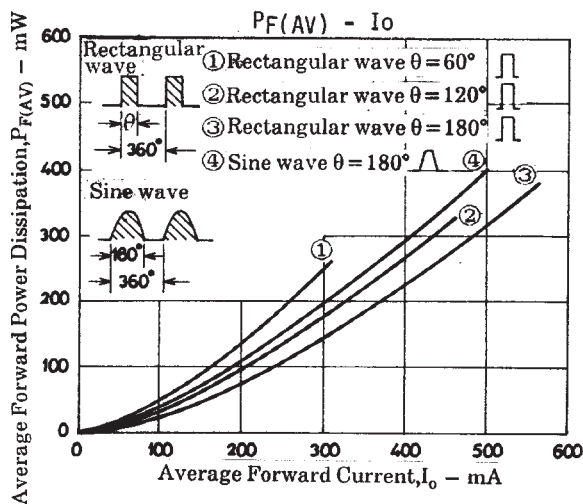
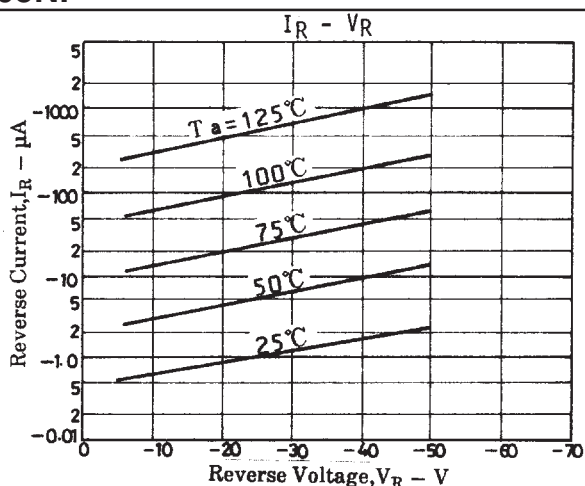
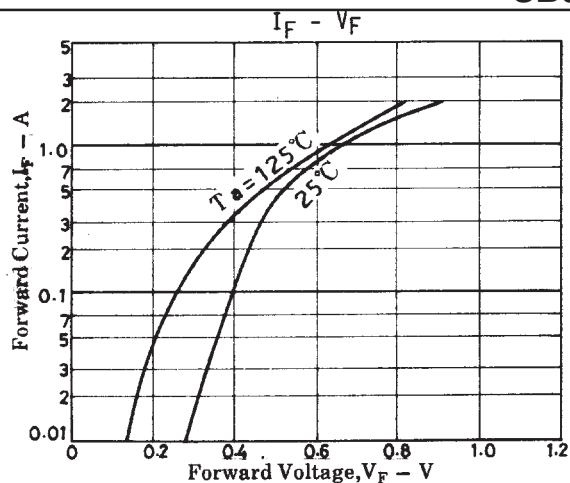
t_{rr} Test Circuit



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