



SB120-05H

Schottky Barrier Diode (Twin Type · Cathode Common)

50V, 12A Rectifier

Applications

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

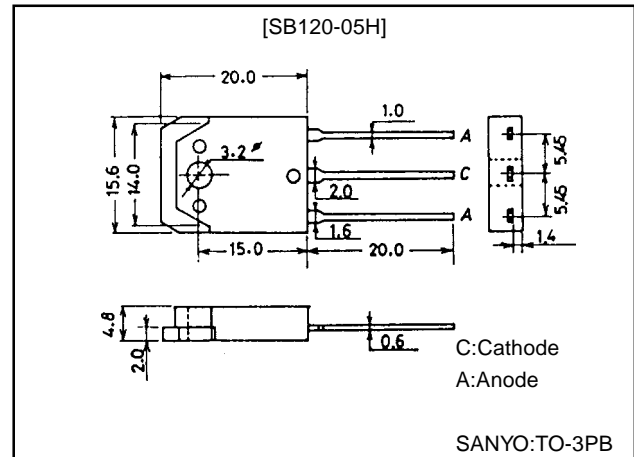
Features

- Low forward voltage (V_F max=0.55V).
- Fast reverse recovery time (t_{rr} max=70ns).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.

Package Dimensions

unit:mm

1160



Specifications

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

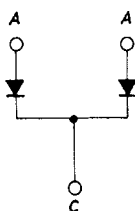
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		-50	V
Non-repetitive Peak Reverse Surge Voltage	V_{RSM}		-55	V
Average Output Current	I_O	50Hz, resistive load, $T_c=110^\circ\text{C}$	12	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	120	A
Junction Temperature	T_j		-55 to +125	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +125	$^\circ\text{C}$

Electrical Characteristics

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=-3\text{mA}$, $T_j=25^\circ\text{C}^*$	-50			V
Forward Voltage	V_F	$I_F=6\text{A}$, $T_j=25^\circ\text{C}^*$			0.55	V
Reverse Current	I_R	$V_R=-25\text{V}$, $T_j=25^\circ\text{C}^*$			-0.6	mA
Reverse Recovery Time	t_{rr}	$I_F=2\text{A}$, $T_j=25^\circ\text{C}^*$, $-dI_F/dt=10\text{A}/\mu\text{s}$			70	ns
Thermal Resistance	R_{th-j-c}	Junction-Case:Smoothed DC			1.5	$^\circ\text{C}/\text{W}$

Note)*: Value per element

Electrical Connection

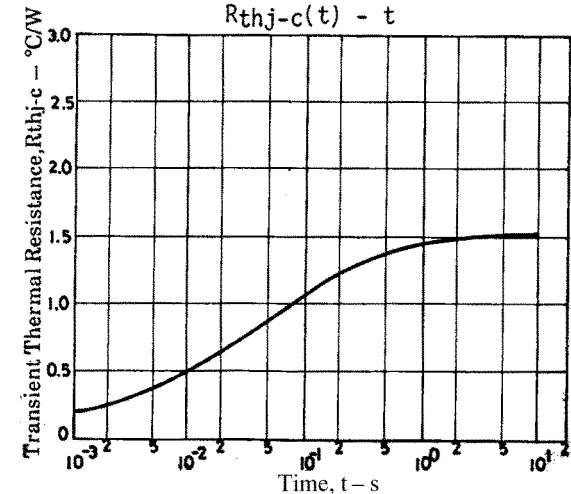
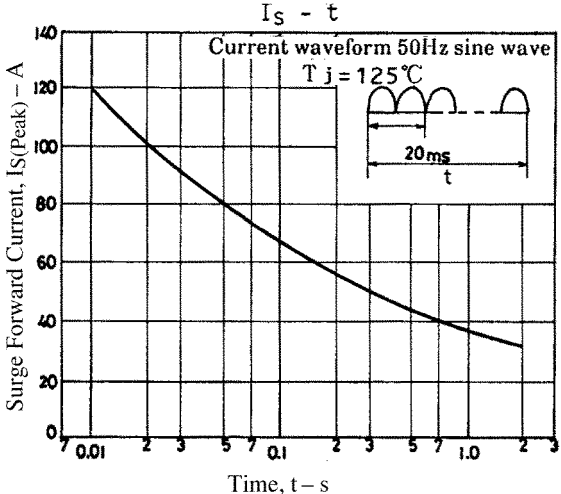
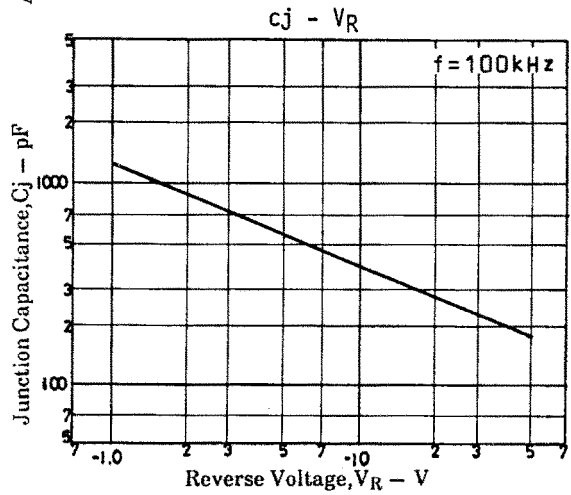
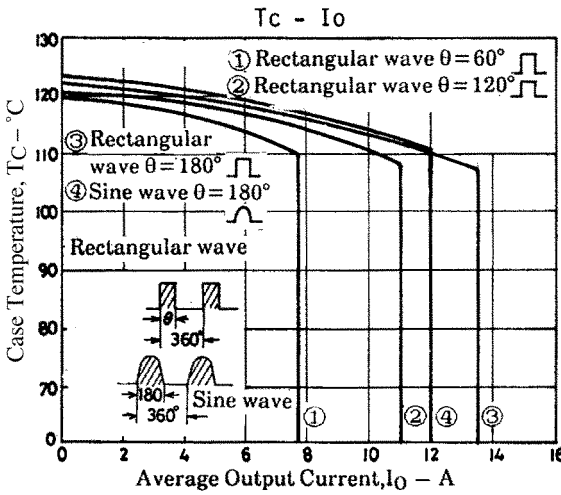
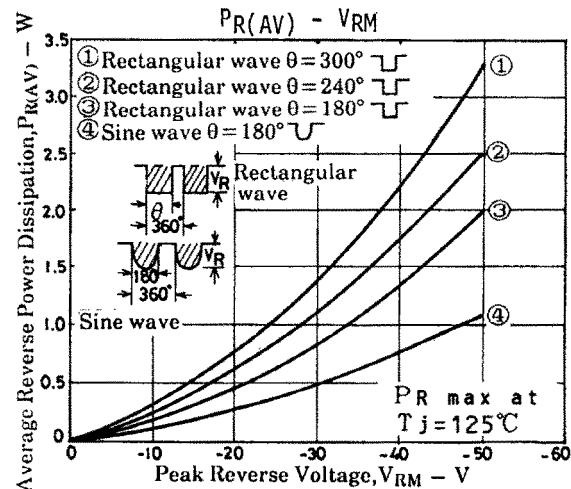
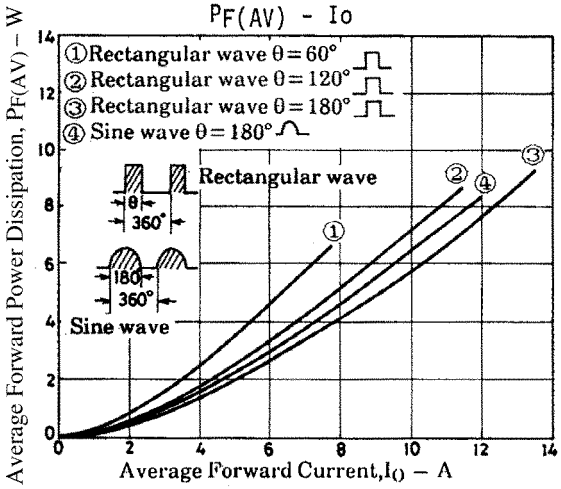
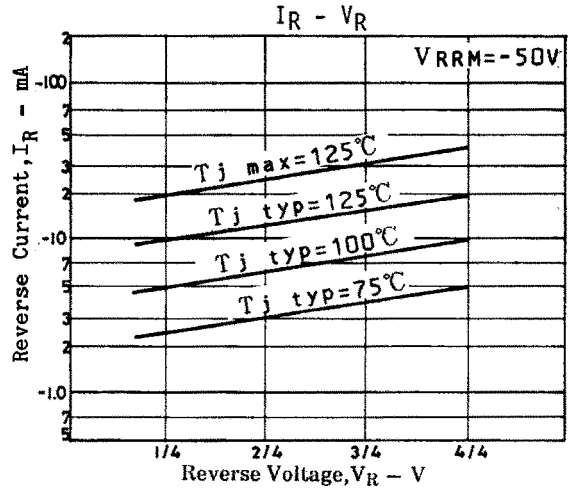
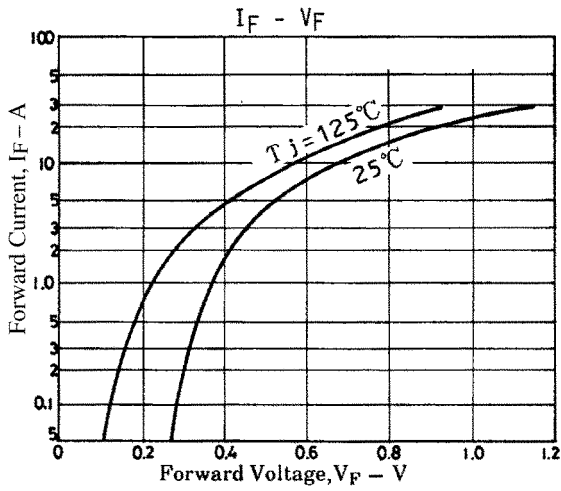


A: Anode
C: Cathode

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