


SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

SB10-05P — Schottky Barrier Diode 50V, 1A Rectifier

Applications

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

Features

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

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		1	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	10	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	$I_R=300\mu\text{A}$	50			V
Forward Voltage	V_F	$I_F=1\text{A}$			0.55	V
Reverse Current	I_R	$V_R=25\text{V}$			80	μA
Interterminal Capacitance	C	$V_R=10\text{V}$, $f=1\text{MHz}$		52		pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=100\text{mA}$, See specified Test Circuit			10	ns

Marking : SA

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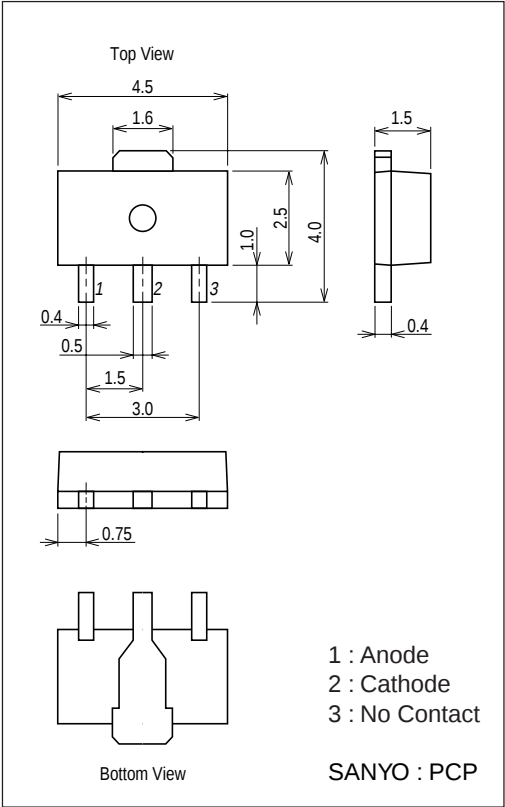
SB10-05P

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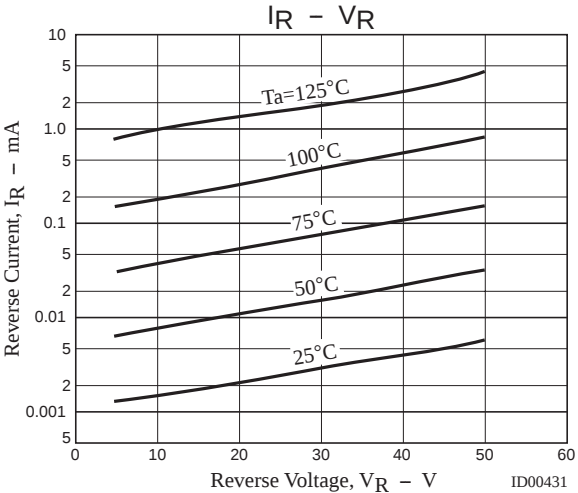
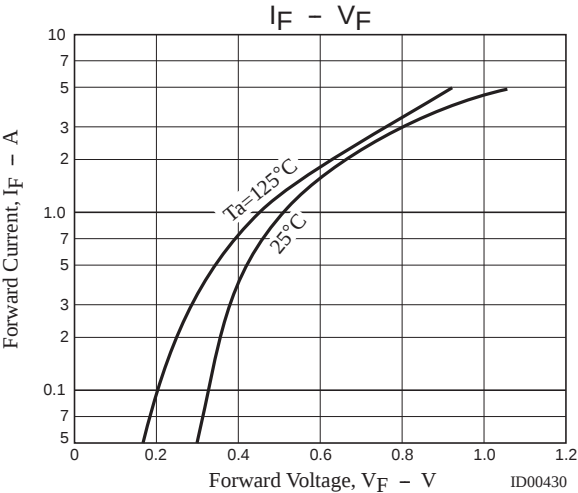
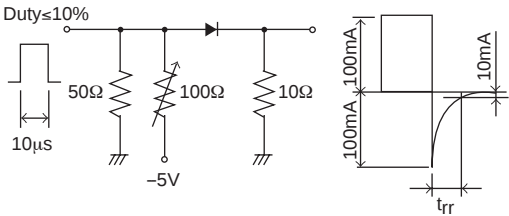
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Thermal Resistance	Rthj-a (1)			300		°C / W
	Rthj-a (2)	Mounted on a ceramic board (250mm ² ×0.8mm)		110		°C / W

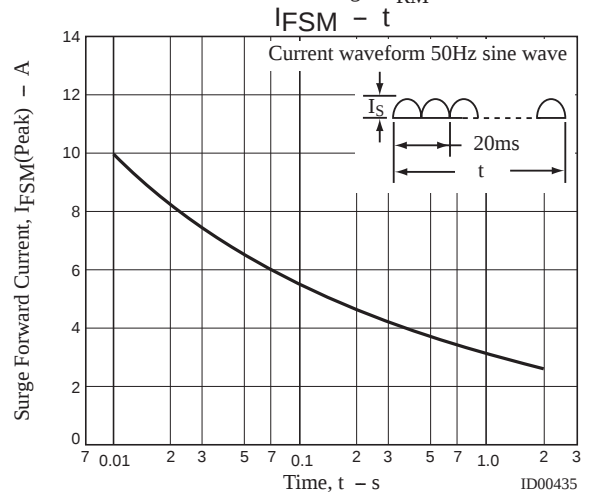
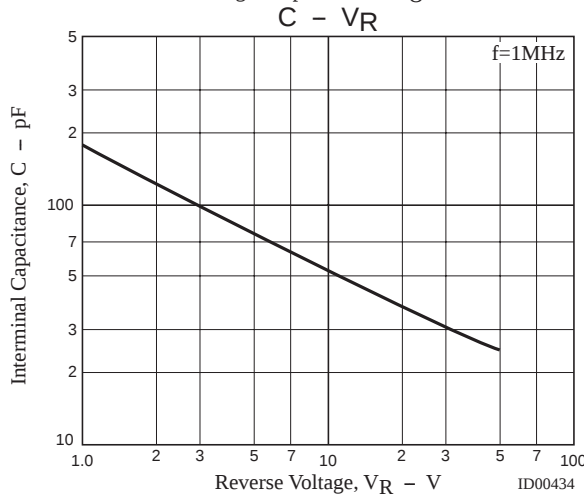
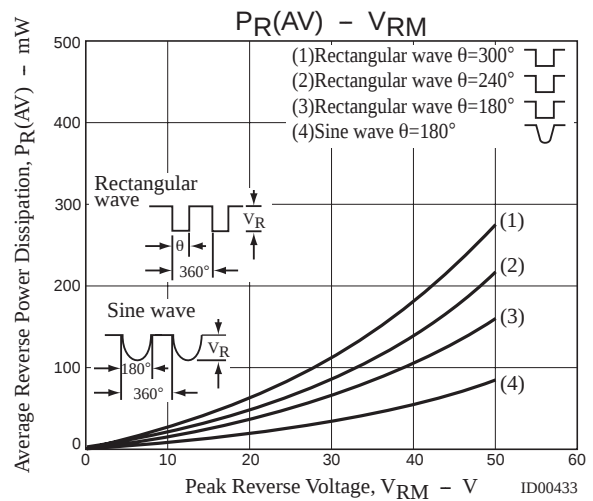
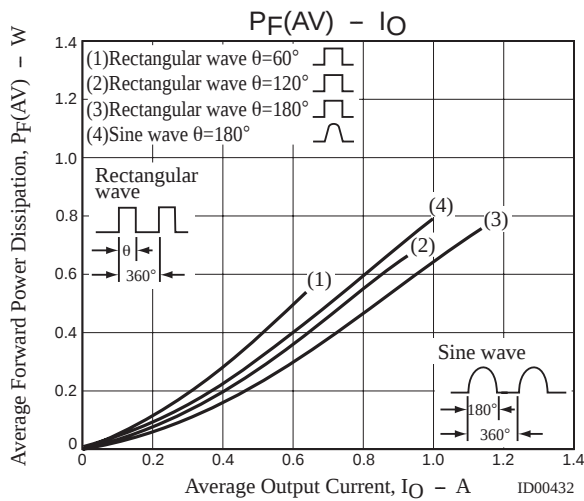
Package Dimensions

unit : mm (typ)
7007A-001



trr Test Circuit





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