



SANYO Semiconductors

DATA SHEET

SB0509V — Schottky Barrier Diode 90V, 0.5A Rectifier

Applications

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

Features

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

Specifications

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$ (Value per element)

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		90	V
Nonrepetitive Peak Reverse Surge Voltage	V_{RSM}		90	V
Average Output Current	I_O		0.5	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 $T_a=25^\circ\text{C}$ (Value per element)

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	$I_R=200\mu\text{A}$	90			V
Forward Voltage	V_{F1}	$I_F=0.2\text{A}$		0.44	0.49	V
	V_{F2}	$I_F=0.5\text{A}$		0.6	0.65	V
Reverse Current	I_R	$V_R=45\text{V}$			30	μA
Reverse Recovery Time	t_{rr}	$I_F=I_R=100\text{mA}$, See specified Test Circuit.			20	ns

Marking : SB

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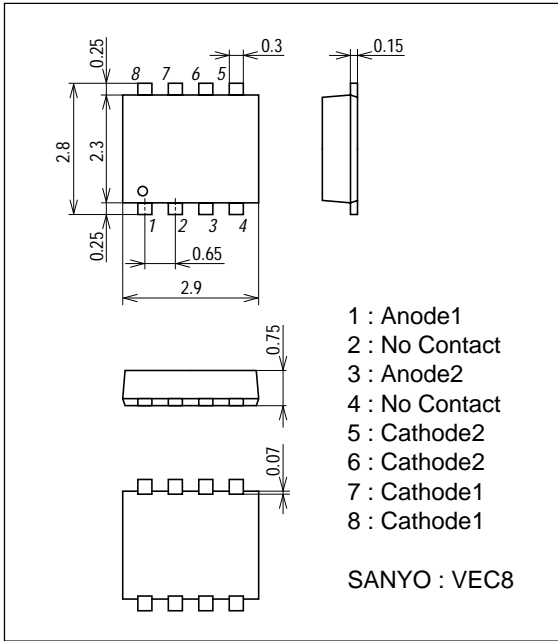
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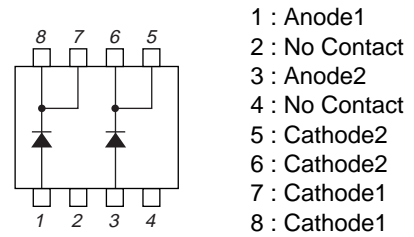
SB0509V

Package Dimensions

unit : mm
1335

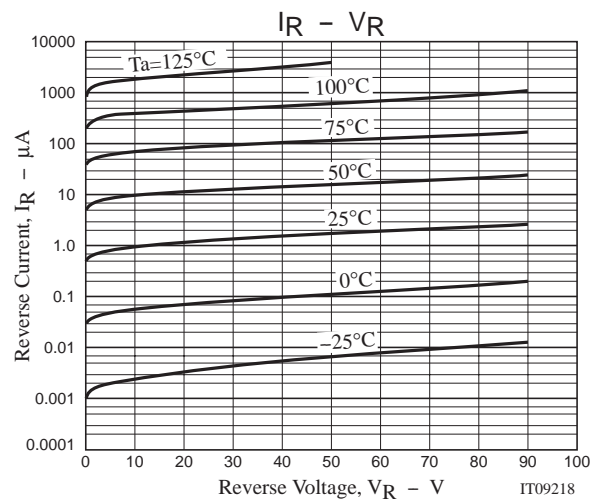
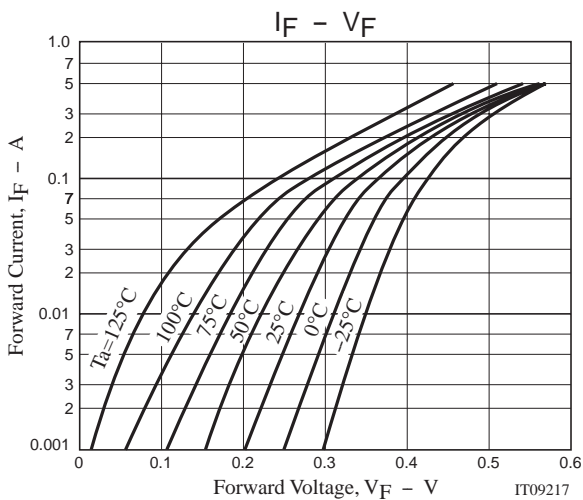
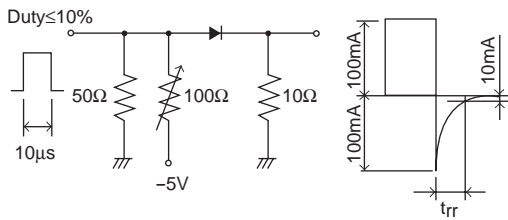


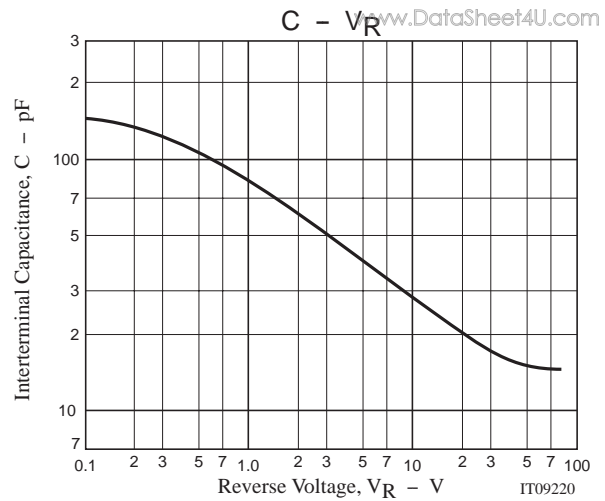
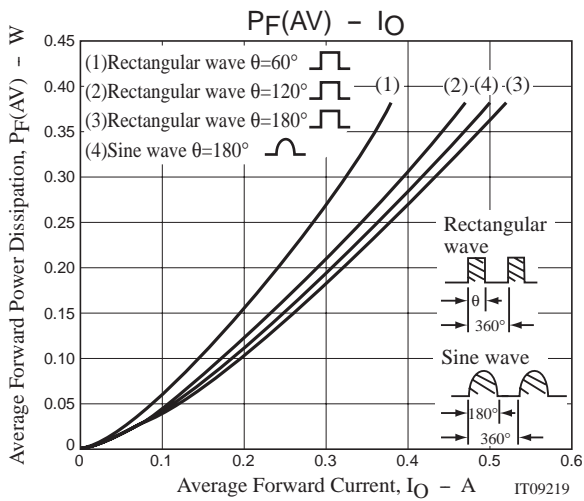
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Top view

t_{rr} Test Circuit





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