



SB005-09CP

Shottky Barrier Diode

90V, 50mA Rectifier

Applications

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

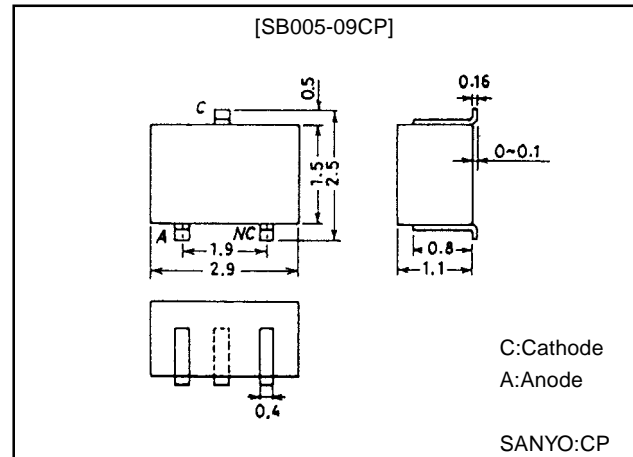
Features

- Low forward voltage (V_F max=0.7V).
- Fast reverse recovery time (t_{rr} =10ns max).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.

Package Dimensions

unit:mm

1148



Specifications

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

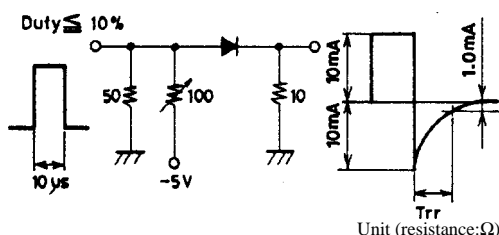
Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V_{RRM}		-90	V
Non-repetitive Peak Reverse Surge Voltage	V_{RSM}		-95	V
Average Output Current	I_O		50	mA
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	2	A
Junction Temperature	T_J		-55 to +125	$^\circ\text{C}$
Storage Temperature	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	$I_R = -50\mu\text{A}$	-90			V
Forward Voltage	V_F	$I_F = 50\text{mA}$			0.7	V
Reverse Current	I_R	$V_R = -45\text{V}$			-15	μA
Interterminal Capacitance	C	$V_R = -10\text{V}$, $f = 1\text{MHz}$		2.8		pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 100\text{mA}$, See specified Test Circuit.			10	ns
Thermal Resistance	Rthj-a (1)			560		$^\circ\text{C/W}$
	Rthj-a (2)	Mounted in Cu-foiled area of $16\text{mm}^2 \times 0.2\text{mm}$ on glass epoxy board		410		$^\circ\text{C/W}$

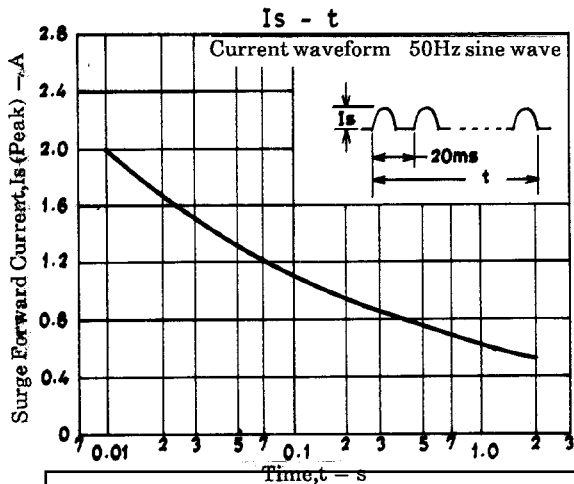
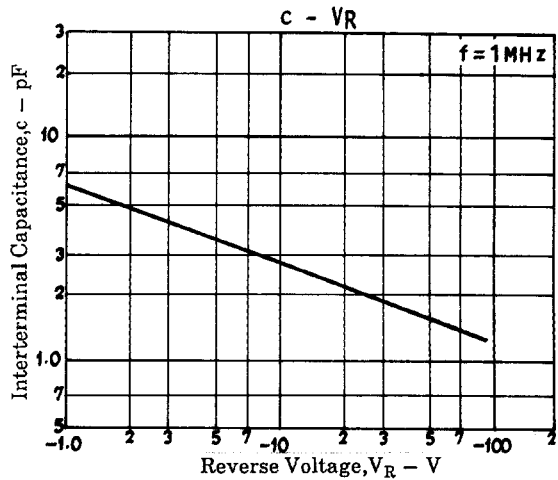
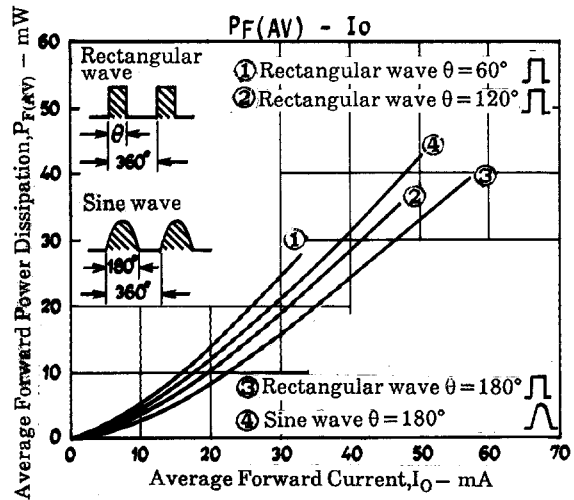
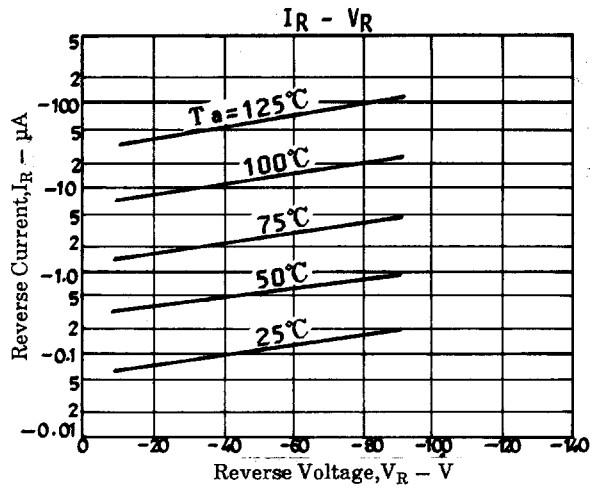
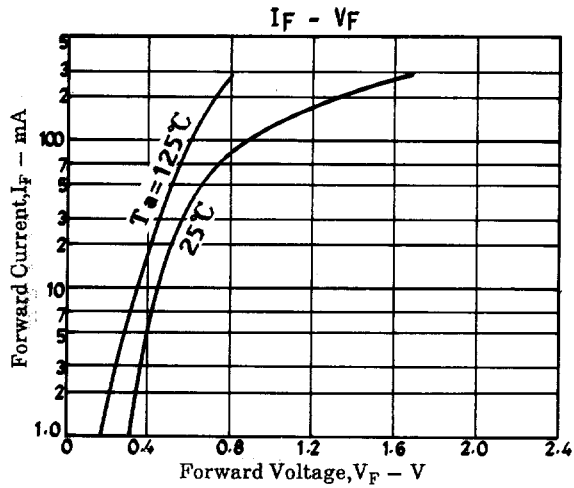
· Marking:C

t_{rr} Test Circuit



SANYO Electric Co.,Ltd. Semiconductor Business Headquarters

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN



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