



SANYO Semiconductors

DATA SHEET

SB01W05C

 — Schottky Barrier Diode (Twin Type • Cathode Common)
50V, 100mA 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.

Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	VRRM		50	V
Nonrepetitive Peak Reverse Surge Voltage	VRSM		55	V
Average Output Current	IO		100	mA
Surge Forward Current	IFSM	50Hz sine wave, 1 cycle	2	A
Junction Temperature	Tj		-55 to +125	°C
Storage Temperature	Tstg		-55 to +125	°C

Electrical Characteristics at $T_a=25^\circ\text{C}$ (Value per element)

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	VR	$I_R=50\mu\text{A}$	50			V
Forward Voltage	V_F	$I_F=100\text{mA}$			0.55	V
Reverse Current	I_R	$V_R=25\text{V}$			15	μA
Interterminal Capacitance	C	$V_R=10\text{V}$, $f=1\text{MHz}$		4.4		pF

Marking : M

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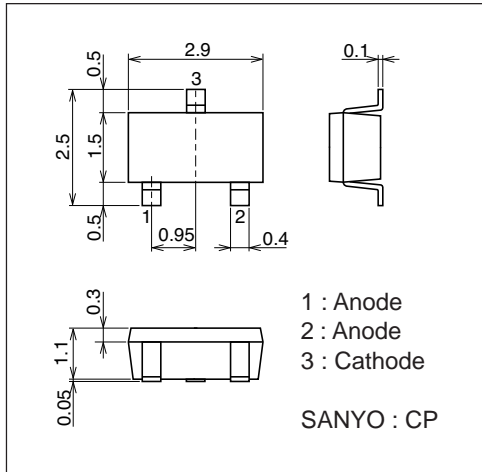
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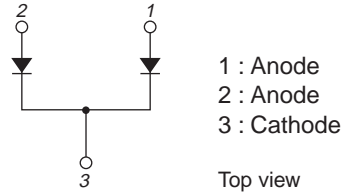
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA}$, See specified Test Circuit.			10	ns
Thermal Resistance	Rth(j-a)1			560		$^{\circ}\text{C} / \text{W}$
	Rth(j-a)2	Mounted on Cu-foil area of $16\text{mm}^2 \times 0.2\text{mm}$ on glass epoxy board		410		$^{\circ}\text{C} / \text{W}$

Package Dimensions

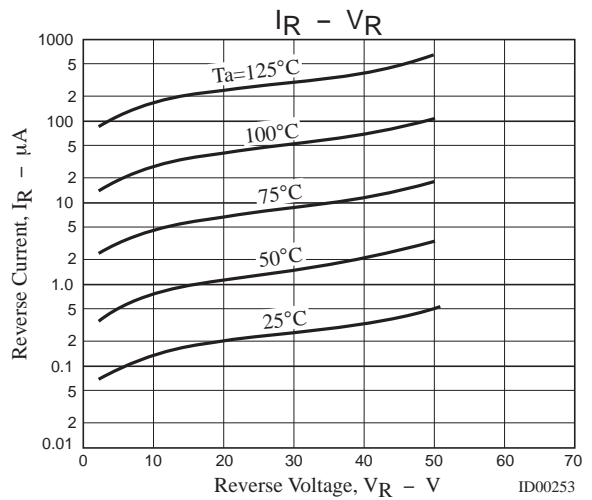
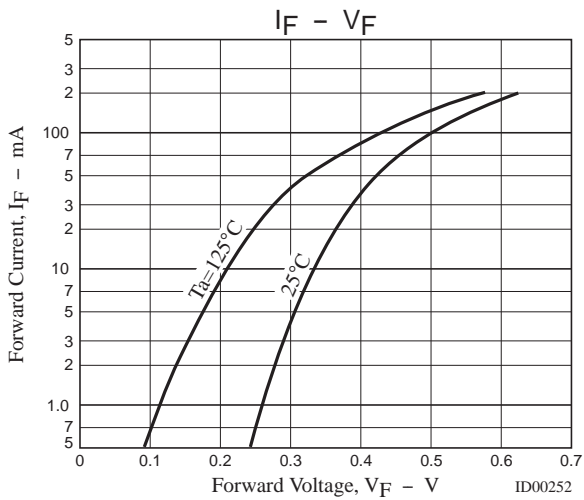
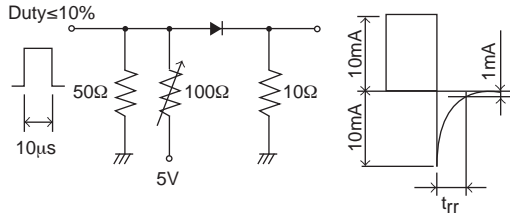
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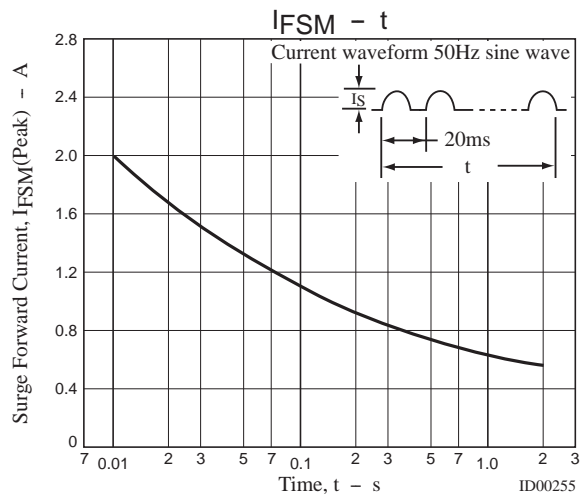
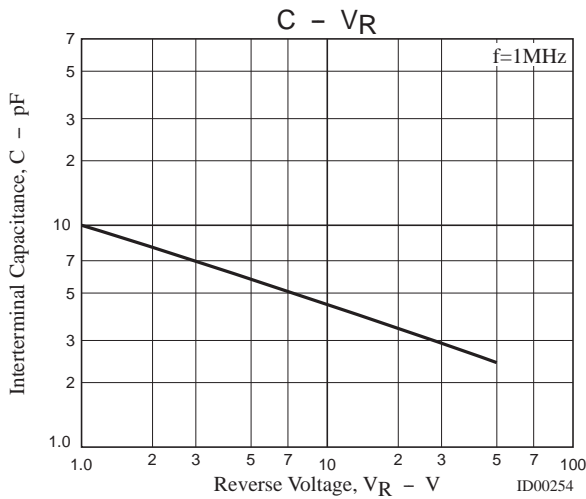
Electrical Connection



t_{rr} Test Circuit



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