Ordering number : ENA0628A

SANYO Semiconductors
DATA SHEET

SBX201C — Schottky Barrier Diode
S to X-Band Detector, Mixer Applications

Features

- Small interterminal capacitance (C=0.25pF typ).
- Less parastic components.
- Small forward voltage.
- Series connection of 2 elements in a small-sized package facilitates high density mounting this goods-applied equipment to be made smaller.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		2	V
Forward Current	I_F		50	mA
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		–55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V_R	I_R=10μA	2			V
Forward Voltage	V_F	I_F=1mA			320	mV
Series Resistance	R_S	I_F=10mA		14	18	Ω
Interterminal Capacitance	C	V_R=0V, f=1MHz		0.25	0.28	pF

Marking : HH

Note 1) The specifications shown above for each individual diode.

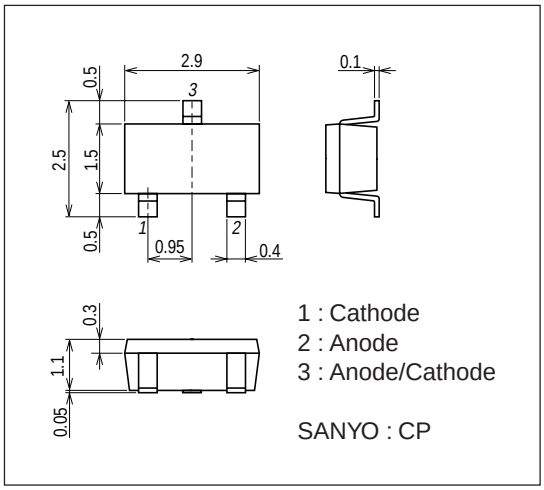
Note 2) Pay attention to handling since it is liable to be affected by static electricity due to the high-frequency process adopted.

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

Package Dimensions

unit : mm (typ)

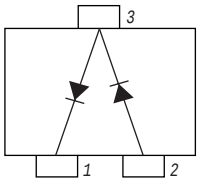
7013A-015



1 : Cathode
2 : Anode
3 : Anode/Cathode

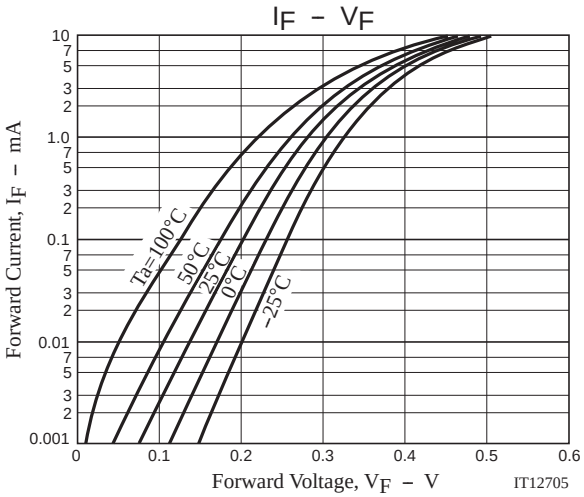
SANYO : CP

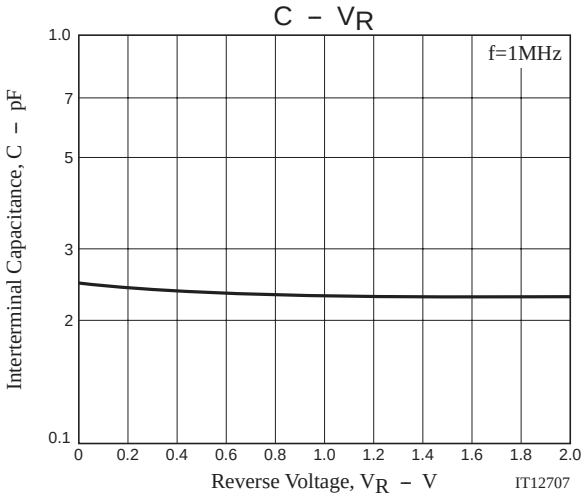
Electrical Connection



Reverse series pair
1 : Cathode
2 : Anode
3 : Anode / Cathode

Top view





S11 Parameters

	V=0V/I=0mA		V=0V/I=0.1mA		V=0V/I=0.5mA		V=0V/I=1.0mA		V=0V/I=5mA	
Freq(GHz)	$\|S_{11}\|$	$\angle S_{11}$	$\|S_{11}\|$	$\angle S_{11}$	$\|S_{11}\|$	$\angle S_{11}$	$\|S_{11}\|$	$\angle S_{11}$	$\|S_{11}\|$	$\angle S_{11}$
1.00	0.996	-8.9	0.844	-8.9	0.381	-2.6	0.092	64.4	0.459	148.1
2.00	0.992	-18.4	0.811	-18.6	0.314	-3.7	0.177	82.0	0.517	122.2
3.00	0.987	-30.0	0.800	-30.6	0.289	-8.8	0.251	76.7	0.582	102.8
4.00	0.975	-44.8	0.766	-46.7	0.208	-12.0	0.326	73.6	0.642	87.7
5.00	0.958	-63.9	0.696	-67.8	0.127	12.0	0.403	68.5	0.691	75.0
6.00	0.944	-89.0	0.634	264.7	0.170	54.5	0.477	62.3	0.730	64.3
7.00	0.928	237.1	0.566	227.1	0.274	62.6	0.537	55.9	0.758	55.3
8.00	0.909	195.8	0.538	180.8	0.372	60.7	0.586	49.5	0.780	47.2
9.00	0.910	153.3	0.570	135.1	0.465	54.2	0.630	42.8	0.798	39.4
10.00	0.927	116.3	0.646	100.6	0.541	47.4	0.666	36.5	0.809	32.3
11.00	0.925	88.9	0.734	75.9	0.608	42.1	0.694	31.7	0.818	26.8
12.00	0.922	70.5	0.771	62.0	0.651	37.3	0.717	27.6	0.828	22.5
13.00	0.929	56.1	0.814	49.6	0.694	31.8	0.735	22.9	0.833	17.3
14.00	0.919	42.7	0.828	38.0	0.717	24.7	0.740	17.0	0.821	11.2
15.00	0.897	30.9	0.831	27.2	0.731	17.8	0.736	11.1	0.800	5.1
16.00	0.879	20.8	0.843	17.8	0.753	11.9	0.739	6.2	0.787	-0.1
17.00	0.872	13.1	0.834	10.7	0.760	5.1	0.750	0.1	0.792	-5.9
18.00	0.855	5.1	0.826	3.1	0.764	-1.2	0.750	-5.4	0.780	-11.5