



## SVC201SPA, 201Y

Diffused Junctions Type Silicon Diode  
Varactor Diode (IOCAP)

for FM Receiver Electronic Tuning

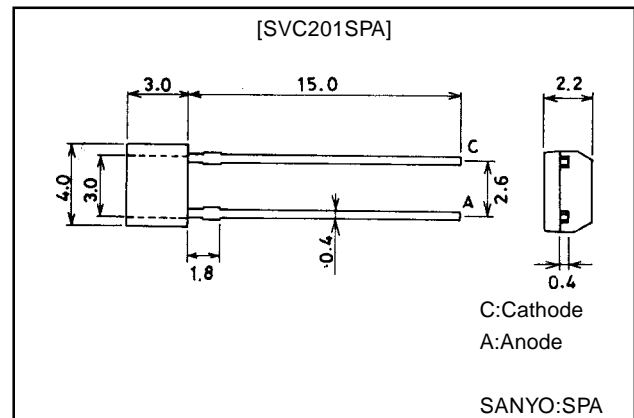
### Features

- The SVC201SPA, 201Y are varactor diodes of hyper abrupt junction structure fabricated with ion implantation technology. It is intended for use in FM receiver electronic tuning applications.
- Capable of being operated from a low voltage (Voltage range:1 to 9V)
- High Q
- High Capacitance ratio
- Uniform capacitance-voltage characteristic provided diode to be used in combination.

### Package Dimensions

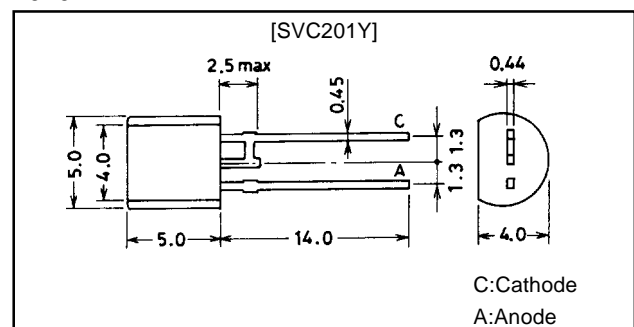
unit:mm

1184



unit:mm

1010A



### Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Voltage	$V_R$		-16	V
Junction Temperature	$T_j$		100	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +100	$^\circ\text{C}$

#### Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	$V_{(BR)R}$	$I_R = -10\mu\text{A}$	-16			V
Reverse Current	$I_R$	$V_R = -9\text{V}$			-50	nA
Interterminal Capacitance	$C_{1.6V}$	$V_R = -1.6\text{V}, f = 1\text{MHz}$	28.19		37.45	pF
	$C_{3.5V}$	$V_R = -3.5\text{V}, f = 1\text{MHz}$	19.04		24.33	pF
	$C_{5.0V}$	$V_R = -5.0\text{V}, f = 1\text{MHz}$	14.48		18.49	pF
	$C_{7.5V}$	$V_R = -7.5\text{V}, f = 1\text{MHz}$	10.17		12.99	pF
Capacitance Ratio	CR	$C_{1.6V}/C_{7.5V}$	2.2		3.7	
Series Resistance	$r_s$	$f = 50\text{MHz}, V_R = -1\text{V}$			0.6	$\Omega$
Matching Tolerance	$\Delta C_m$	$(C_{\text{max}} - C_{\text{min}})/C_{\text{min}}$			0.05	

**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

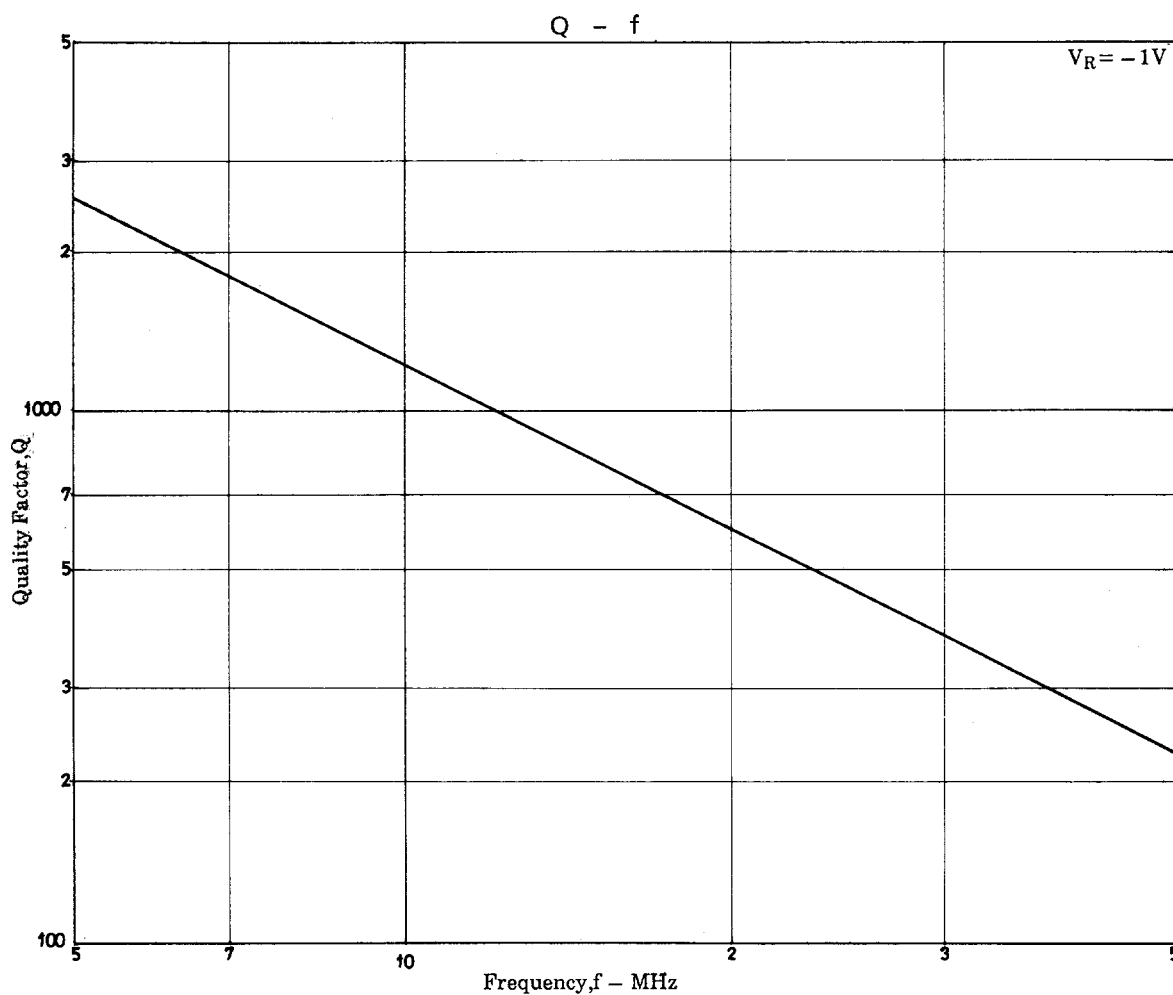
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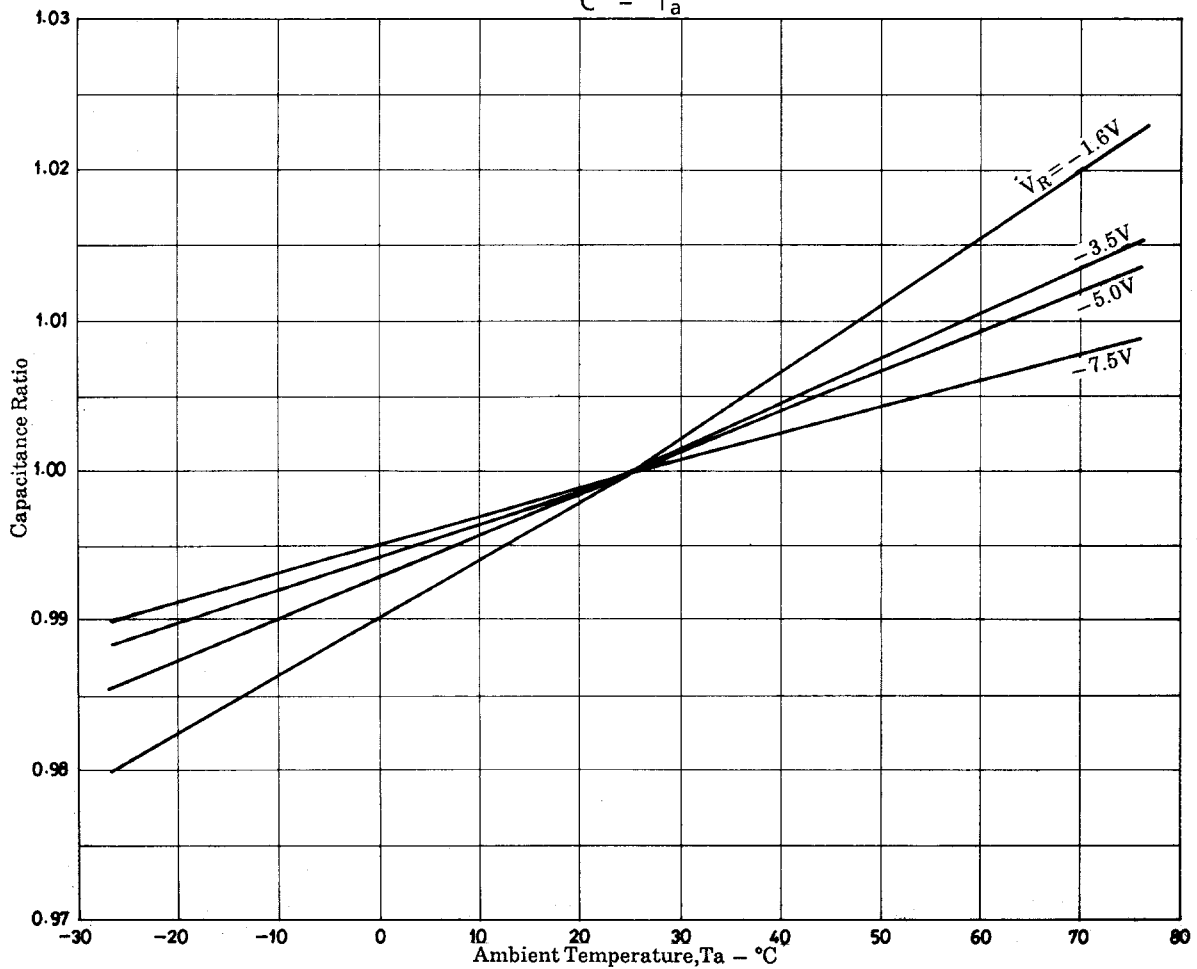
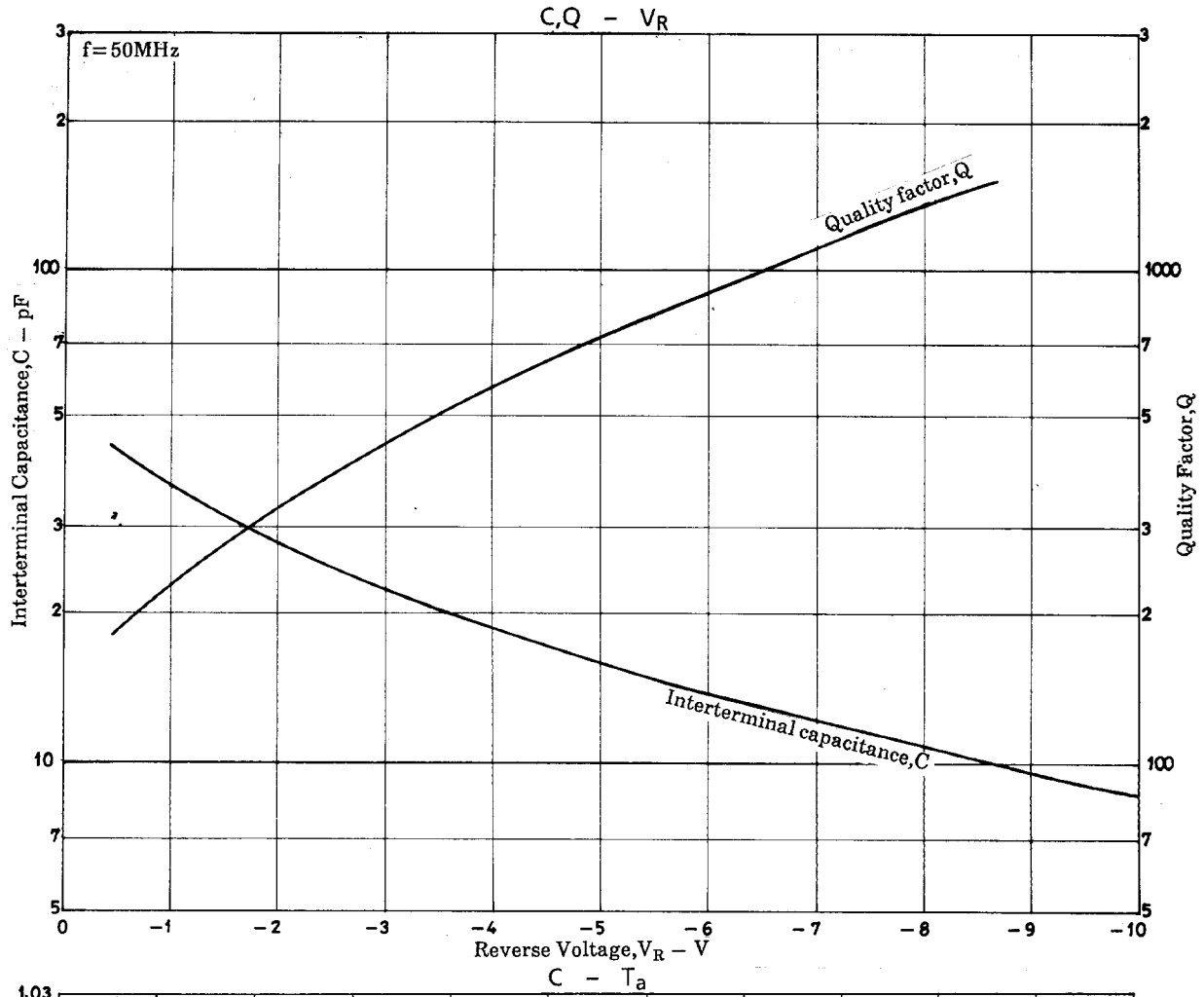
# SVC201SPA, 201Y

## ◆ Address and Capacitance Value

TEST POINT	C 1.6V		C 3.5V		C 5.0V		C 7.5V	
	Address	Capacitance (pF)	Address	Capacitance (pF)	Address	Capacitance (pF)	Address	Capacitance (pF)
CAPACITANCE VALUE	38	[ 37.45 35.67	27	[ 24.33 23.17	20	[ 18.49 17.61	11	[ 12.99 12.37
	37	[ 36.01 34.30	26	[ 23.39 22.28	19	[ 17.78 16.93	10	[ 12.50 11.90
	36	[ 34.63 32.98	25	[ 22.49 21.42	18	[ 17.09 16.28	9	[ 12.01 11.44
	35	[ 33.30 31.71	24	[ 21.63 20.60	17	[ 16.43 15.65	8	[ 11.54 10.99
	34	[ 32.02 30.50	23	[ 20.80 19.81	16	[ 15.81 15.05	7	[ 11.11 10.58
	33	[ 30.79 29.32	22	[ 20.00 19.04	15	[ 15.20 14.48	6	[ 10.68 10.17
	32	[ 29.60 28.19						



# SVC201SPA, 201Y



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