



# SVC201SPA

## Varactor Diode (IOCAP) for FM Receiver Electronic Tuning

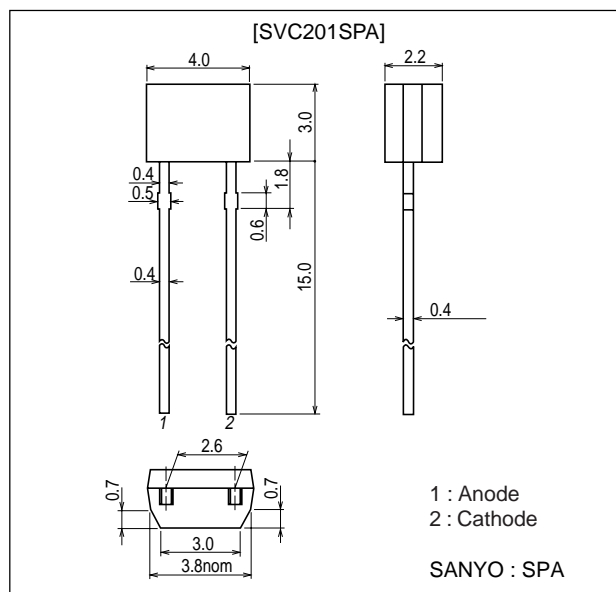
### Features

- 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



### Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	$V_R$		16	V
Junction Temperature	$T_j$		100	°C
Storage Temperature	$T_{stg}$		-55 to +100	°C

Electrical Characteristics at Ta=25°C

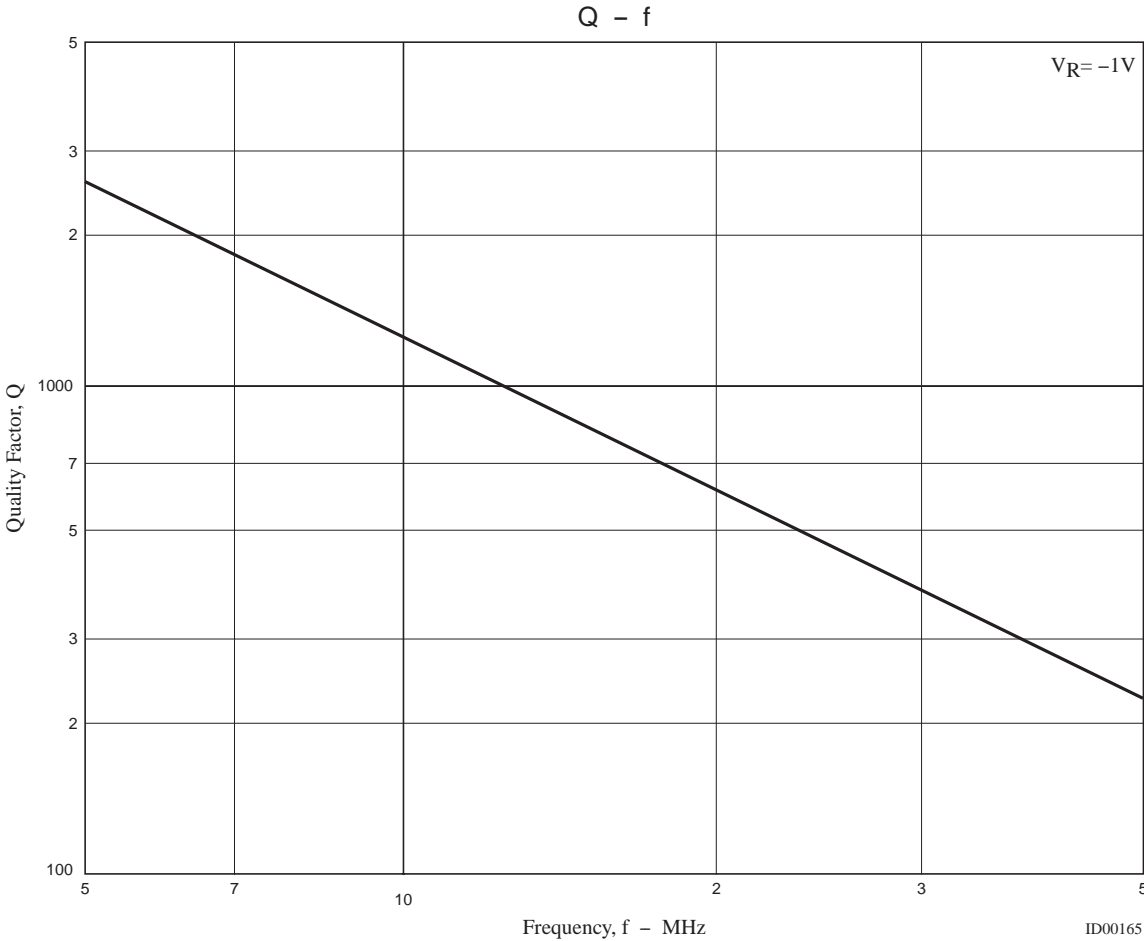
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	$V_{(BR)R}$	$I_R=10\mu A$	16			V
Reverse Current	$I_R$	$V_R=9V$			50	nA
Interterminal Capacitance	C1.6V	$V_R=1.6V, f=1MHz$	28.19		37.45	pF
	C3.5V	$V_R=3.5V, f=1MHz$	19.04		24.33	pF
	C5.0V	$V_R=5.0V, f=1MHz$	14.48		18.49	pF
	C7.5V	$V_R=7.5V, f=1MHz$	10.17		12.99	pF
Capacitance Ratio	$C_R$	C1.6V / C7.5V	2.2		3.7	
Series Resistance	$r_s$	$f=50MHz, V_R=1V$			0.6	$\Omega$
Matching Tolerance	$\Delta C_m$	$(C_{max} - C_{min}) / C_{min}$			0.05	

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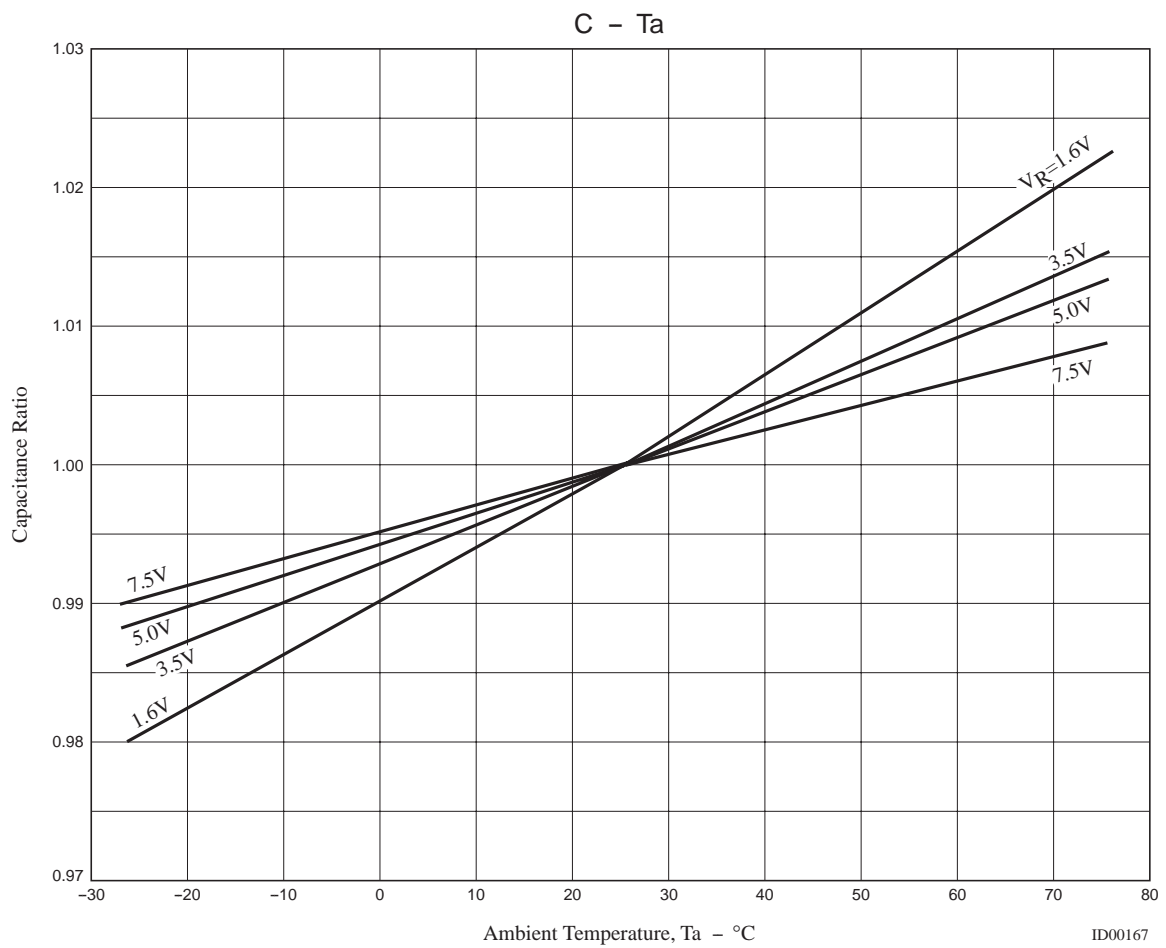
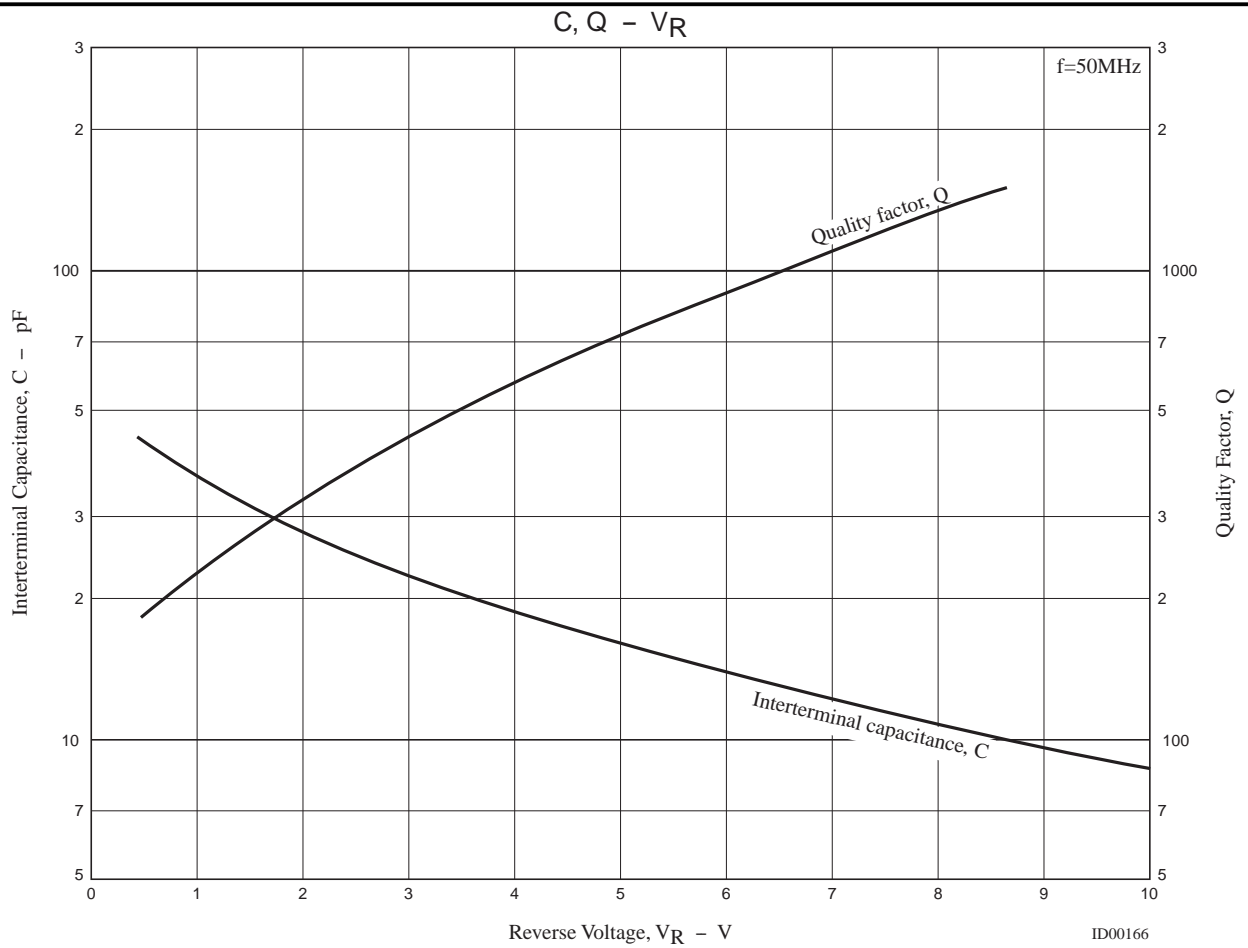
SVC201SPA

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						



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