

SANYO**SVC201SPA, 201Y**Diffused Junctions Type Silicon Diode
Varactor Diode (IOCAP)

for FM Receiver Electronic Tuning

Features

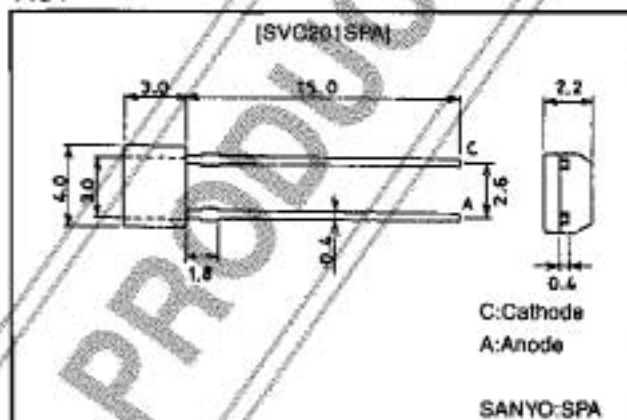
The SVC201SPA, 201Y are varactor diodes of hyper abrupt junction structure fabricated with ion implantation technology. It is intended for use in FM receiver electronic tuning applications.

- 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

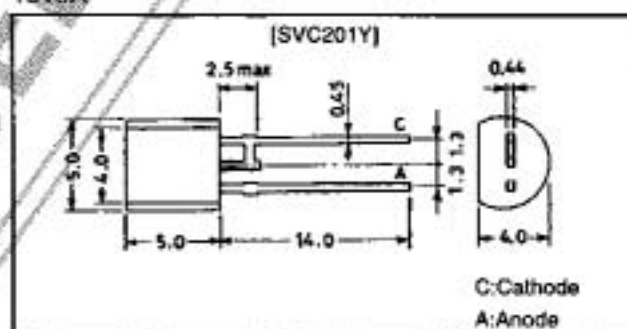
unit:mm

1184



unit:mm

1010A

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

Parameter	Symbol	Conditions	Rating	Unit
Repetitive Voltage	V_R		-18	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	Rating			Unit
			min	typ	max	
Breakdown Voltage	$V_{(BR)R}$	$I_R = -10\mu\text{A}$	-18			V
Reverse Current	I_R	$V_R = -9\text{V}$			-50	nA
Interterminal Capacitance	$C_{1.6\text{V}}$	$V_R = -1.6\text{V}, f = 1\text{MHz}$	28.19		37.45	pF
	$C_{3.5\text{V}}$	$V_R = -3.5\text{V}, f = 1\text{MHz}$	19.04		24.33	pF
	$C_{5.0\text{V}}$	$V_R = -5.0\text{V}, f = 1\text{MHz}$	14.48		18.49	pF
	$C_{7.5\text{V}}$	$V_R = -7.5\text{V}, f = 1\text{MHz}$	10.17		12.99	pF
Capacitance Ratio	CR	$C_{1.6\text{V}}/C_{7.5\text{V}}$	2.2		3.7	
Series Resistance	r_s	$f = 50\text{MHz}, V_R = -1\text{V}$			0.6	Ω
Matching Tolerance	ΔC_m	$(C_{\text{max}} - C_{\text{min}})/C_{\text{min}}$			0.05	

SANYO Electric Co., Ltd. Semiconductor Business Headquarters

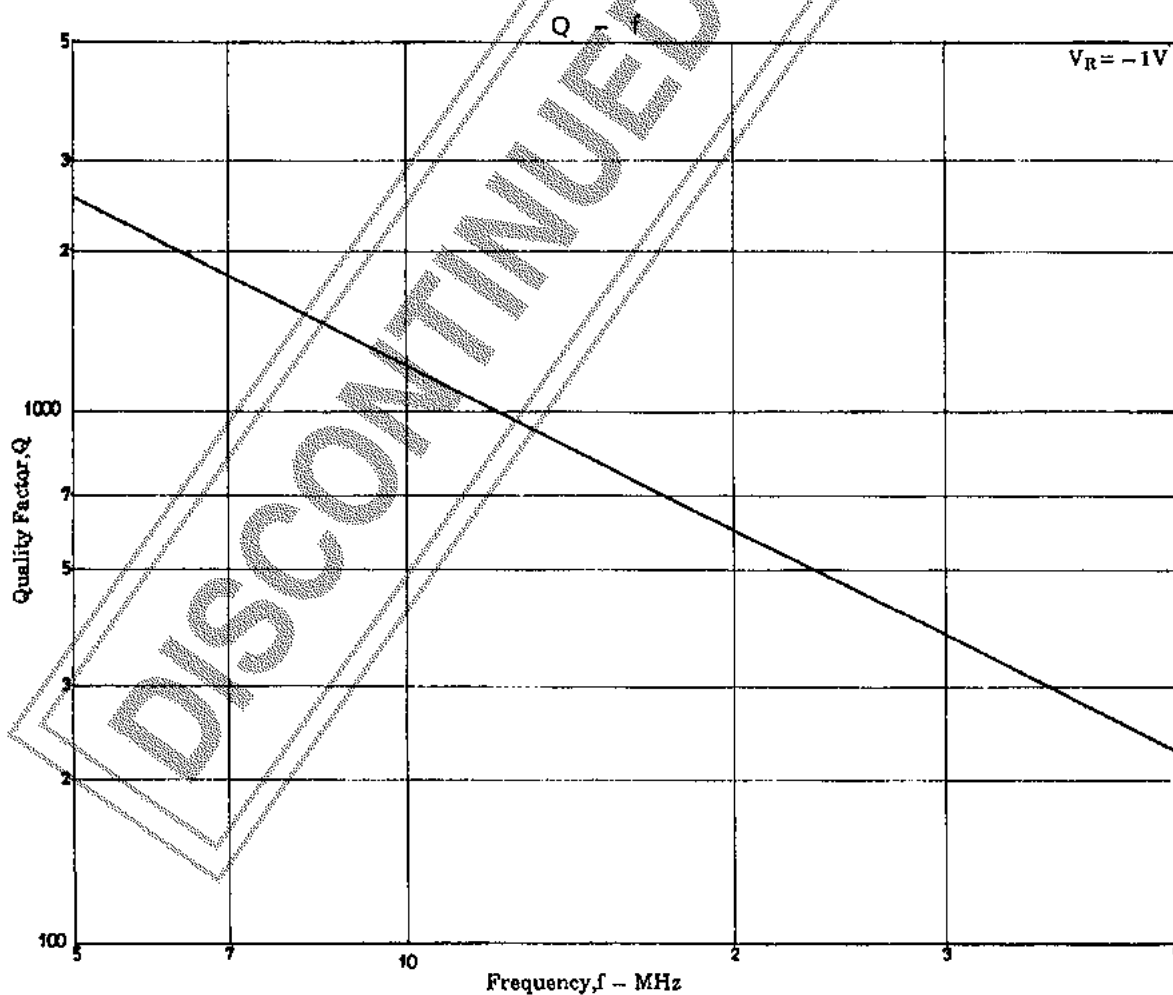
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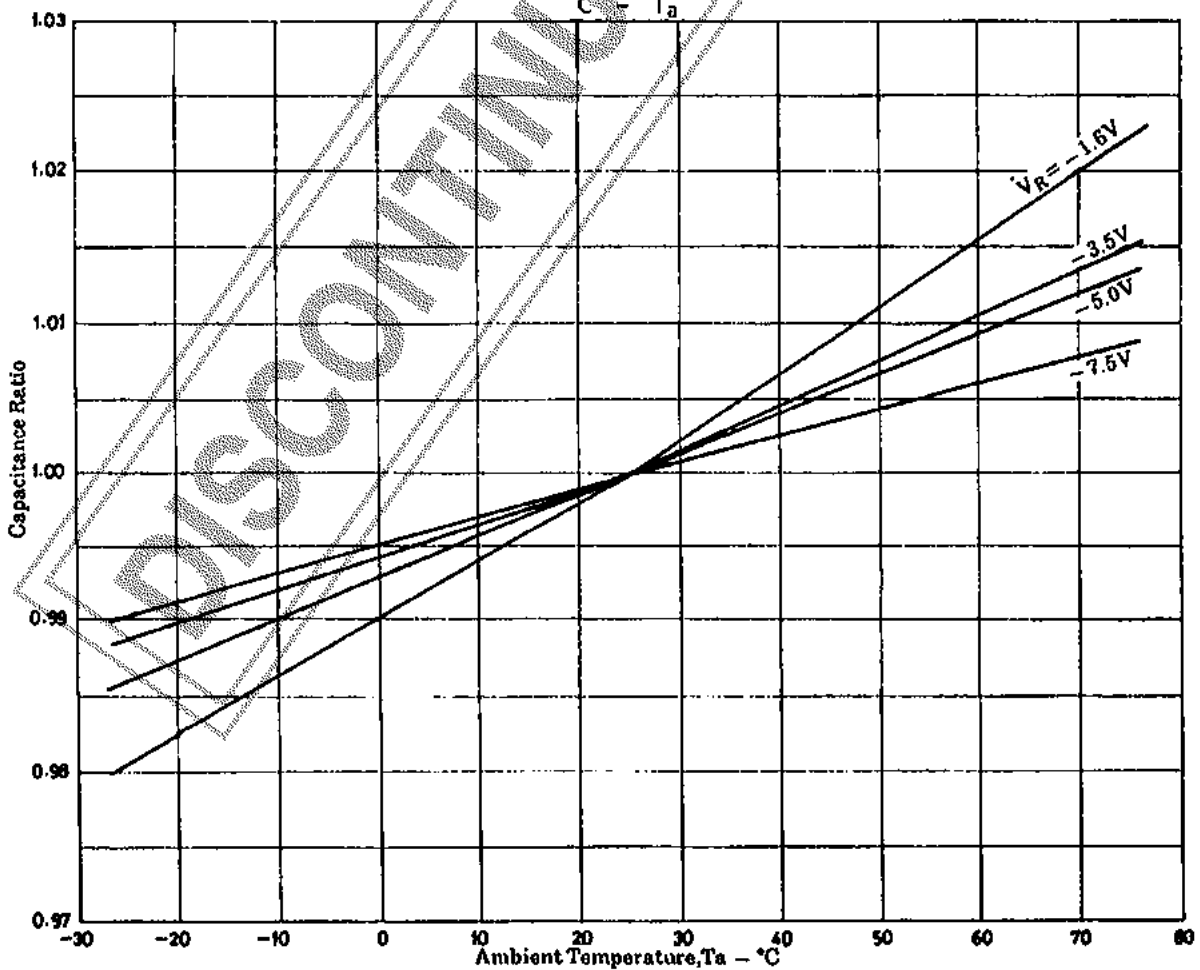
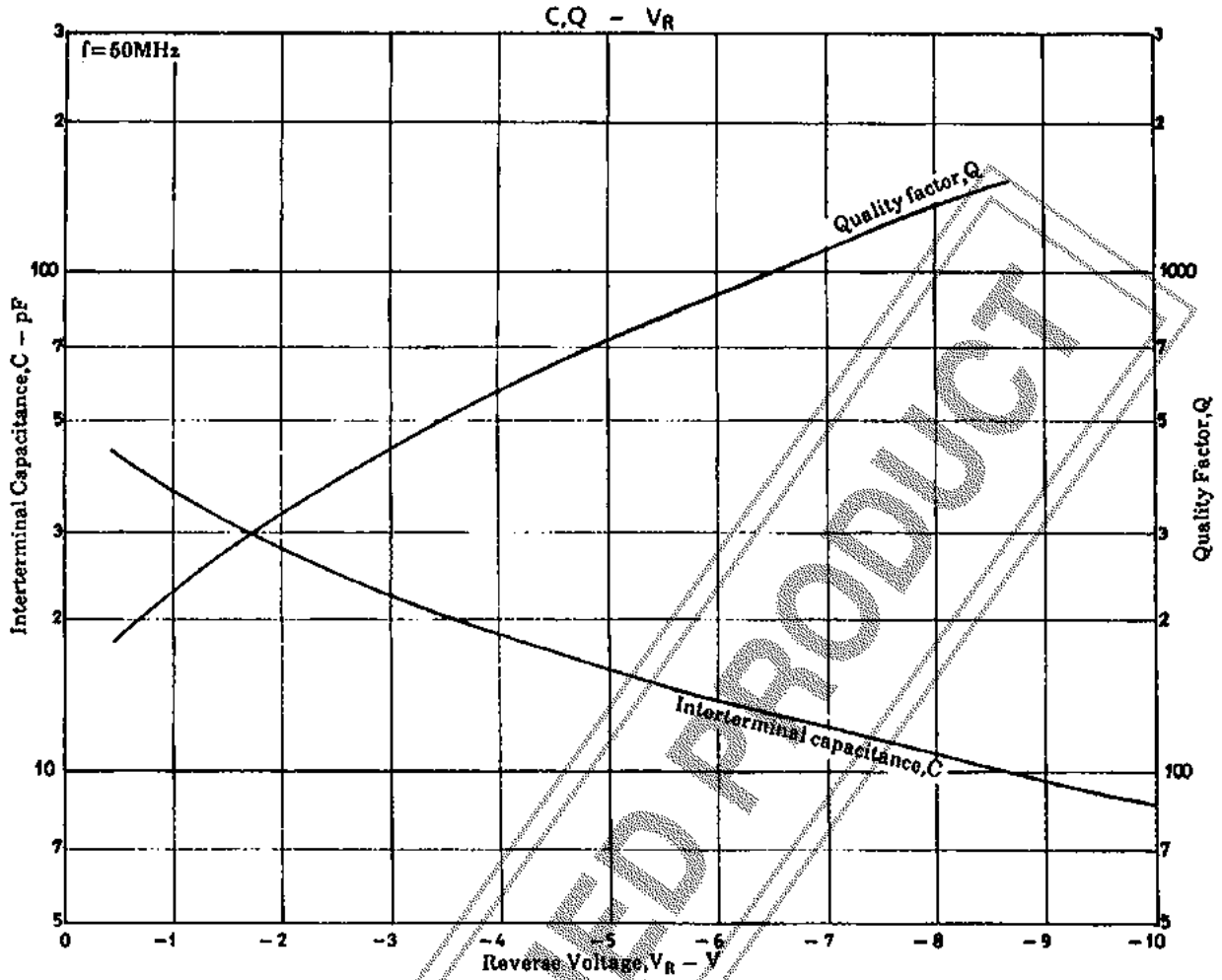
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◆ Address and Capacitance Value

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	[37.46 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	[12.60 11.90
	36	[34.83 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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