



SVC201SPA, 201Y

Diffused Junctions Type Silicon Diode
Varactor Diode (IOCAP)
for FM Receiver Electronic Tuning

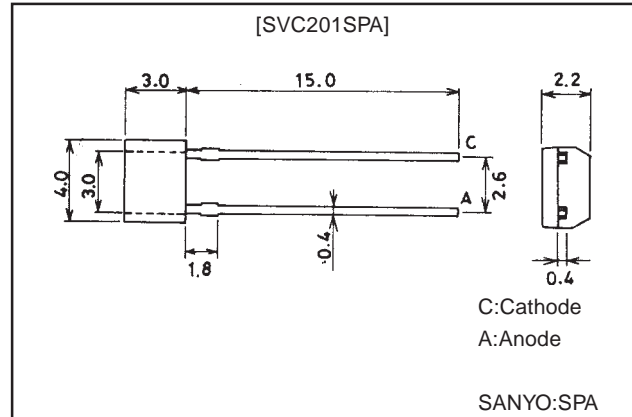
Features

- 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

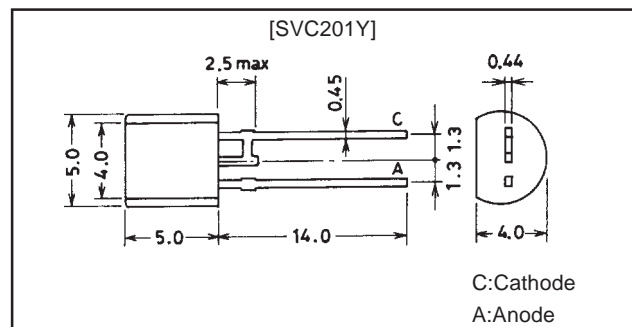
unit:mm

1184



unit:mm

1010A



Specifications

Absolute Maximum Ratings at Ta = 25°C

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

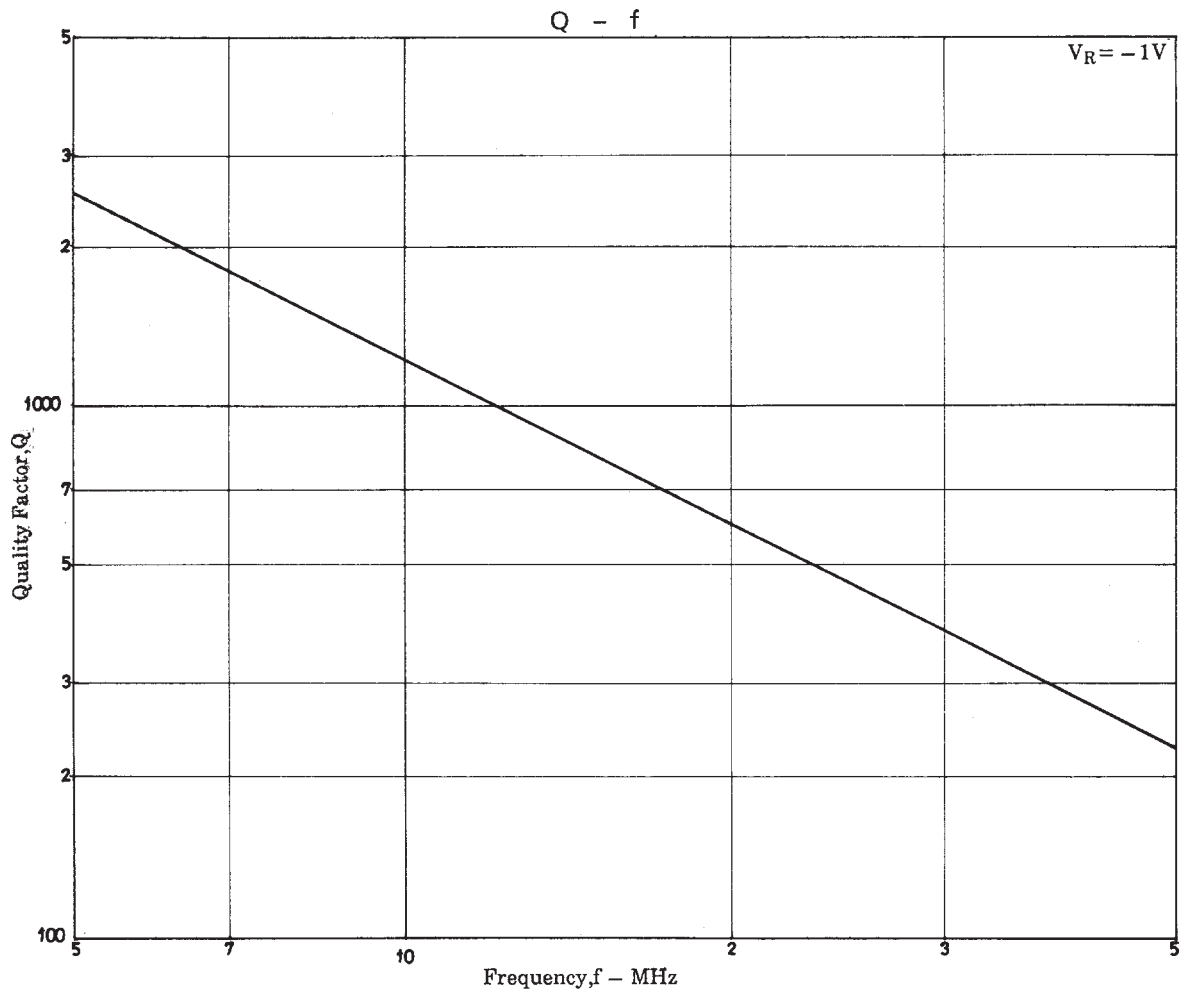
Electrical Characteristics at Ta = 25°C

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	$C_{1.6V}$	$V_R = -1.6V, f = 1MHz$	28.19		37.45	pF
	$C_{3.5V}$	$V_R = -3.5V, f = 1MHz$	19.04		24.33	pF
	$C_{5.0V}$	$V_R = -5.0V, f = 1MHz$	14.48		18.49	pF
	$C_{7.5V}$	$V_R = -7.5V, f = 1MHz$	10.17		12.99	pF
Capacitance Ratio	CR	$C_{1.6V}/C_{7.5V}$	2.2		3.7	
Series Resistance	r_s	$f = 50MHz, V_R = -1V$			0.6	Ω
Matching Tolerance	ΔC_m	$(C_{max} - C_{min})/C_{min}$			0.05	

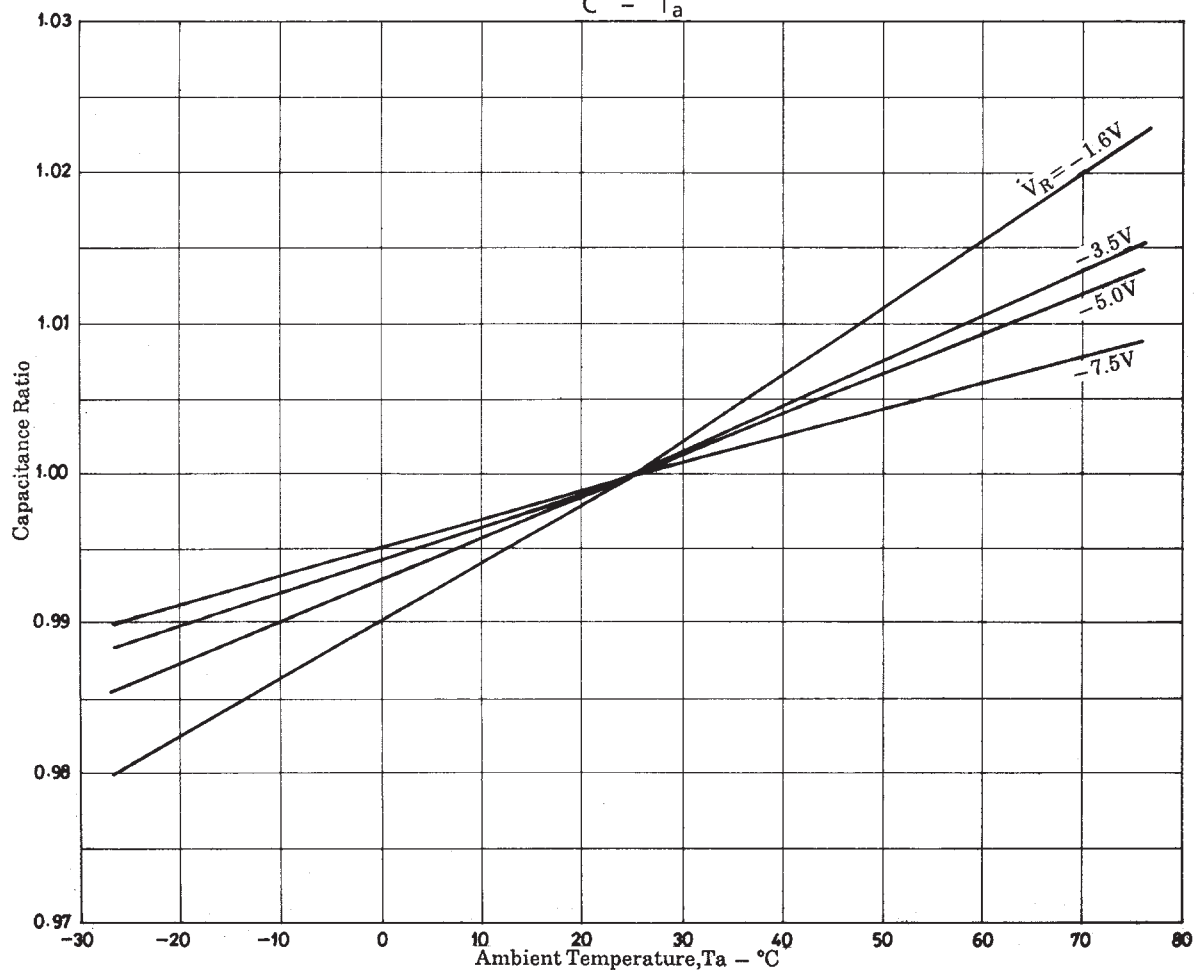
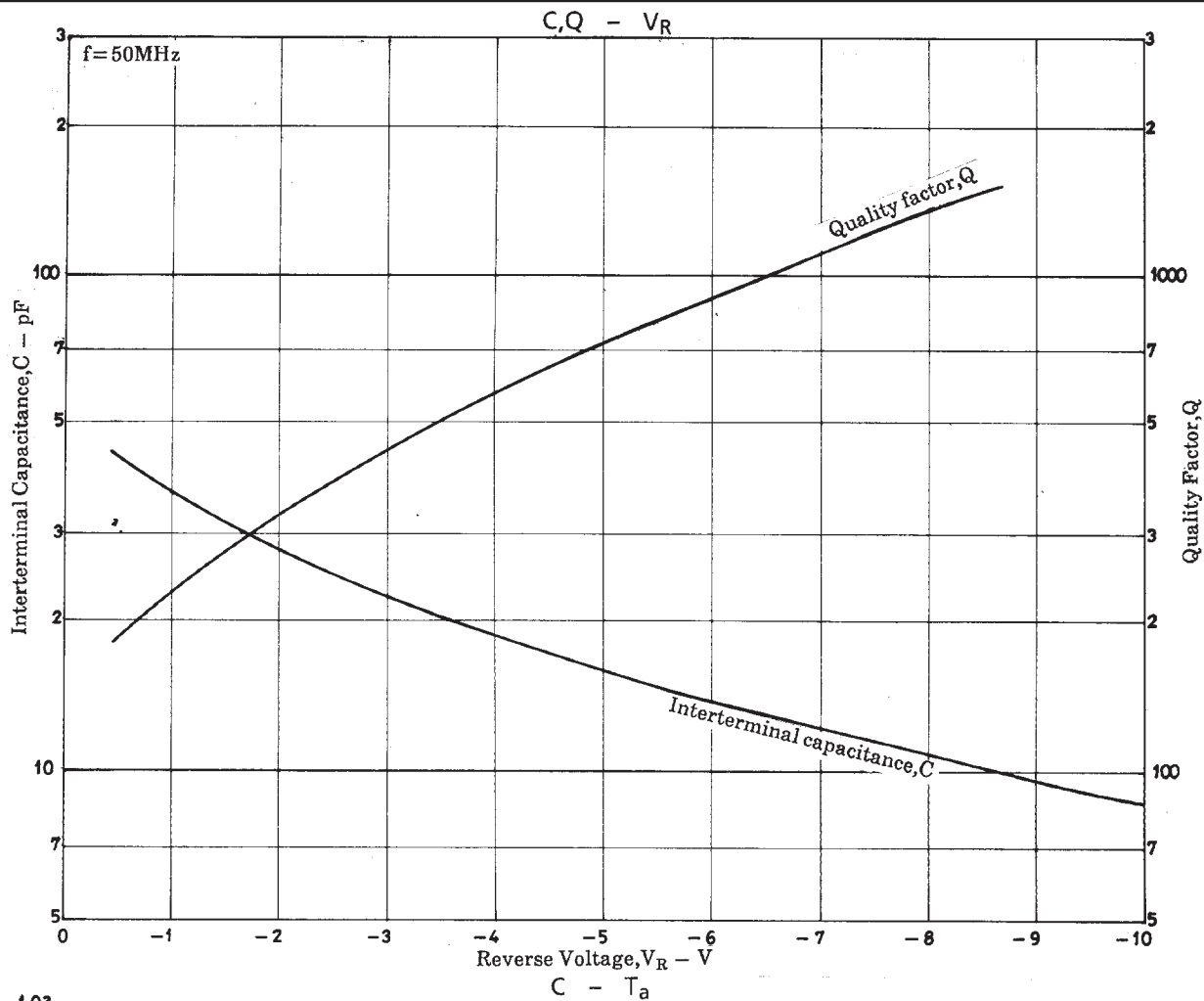
SVC201SPA, 201Y

◆ 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



- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:
 - ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use:
 - ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

This catalog provides information as of March, 1998. Specifications and information herein are subject to change without notice.