



SVC321SPA

Diffused Junction Type Silicon Diode
Varactor Diode (IOCAP)
 for AM Receiver Electronic Tuning

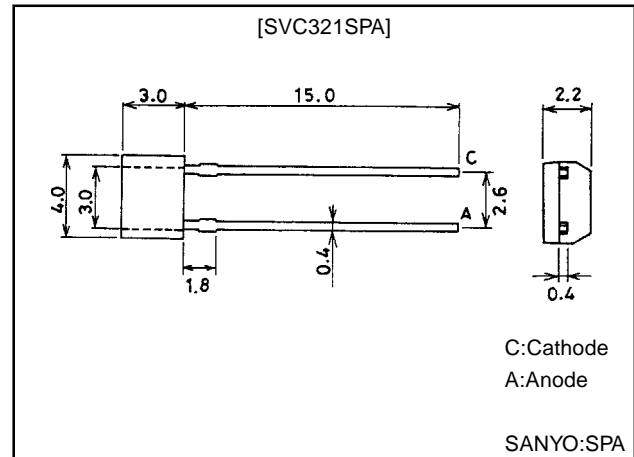
Features

- The SVC321SPA is a varactor diode with a good linearity and high capacitance ratio that is capable of being operated from a low voltage and is intended for use in AM receiver electronic tuning applications.

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	$V_R=9V$			100	nA
Interterminal Capacitance*	$C_{1.2V}$	$V_R=1.2V, f=1MHz$	388.1		459.1	pF
	$C_{3.5V}$	$V_R=3.5V, f=1MHz$	144.2		192.1	pF
	$C_{6.0V}$	$V_R=6.0V, f=1MHz$	45.71		60.91	pF
	$C_{8.0V}$	$V_R=8.0V, f=1MHz$	20.30		27.05	pF
Quality Factor	Q	$V_R=1.0V, f=1MHz$	200			
Capacitance Ratio	C_R	$C_{1.2V}/C_{8.0V}, f=1MHz$	15.5			
Matching Tolerance	ΔC_m	$(C_{max}-C_{min})/C_{min}$			0.03	

Note)*:The SVC321SPA is classified by $C_{1.2V}$ and $C_{8.0V}$ as follows:

Rank	$C_{1.2V}(pF)$	$C_{8.0V}(pF)$
A	388.1 to 424.1	20.30 to 23.54
B	388.1 to 424.1	23.31 to 27.05
C	420.0 to 459.1	20.30 to 23.54
D	420.0 to 459.1	23.31 to 27.05

SVC321SPA

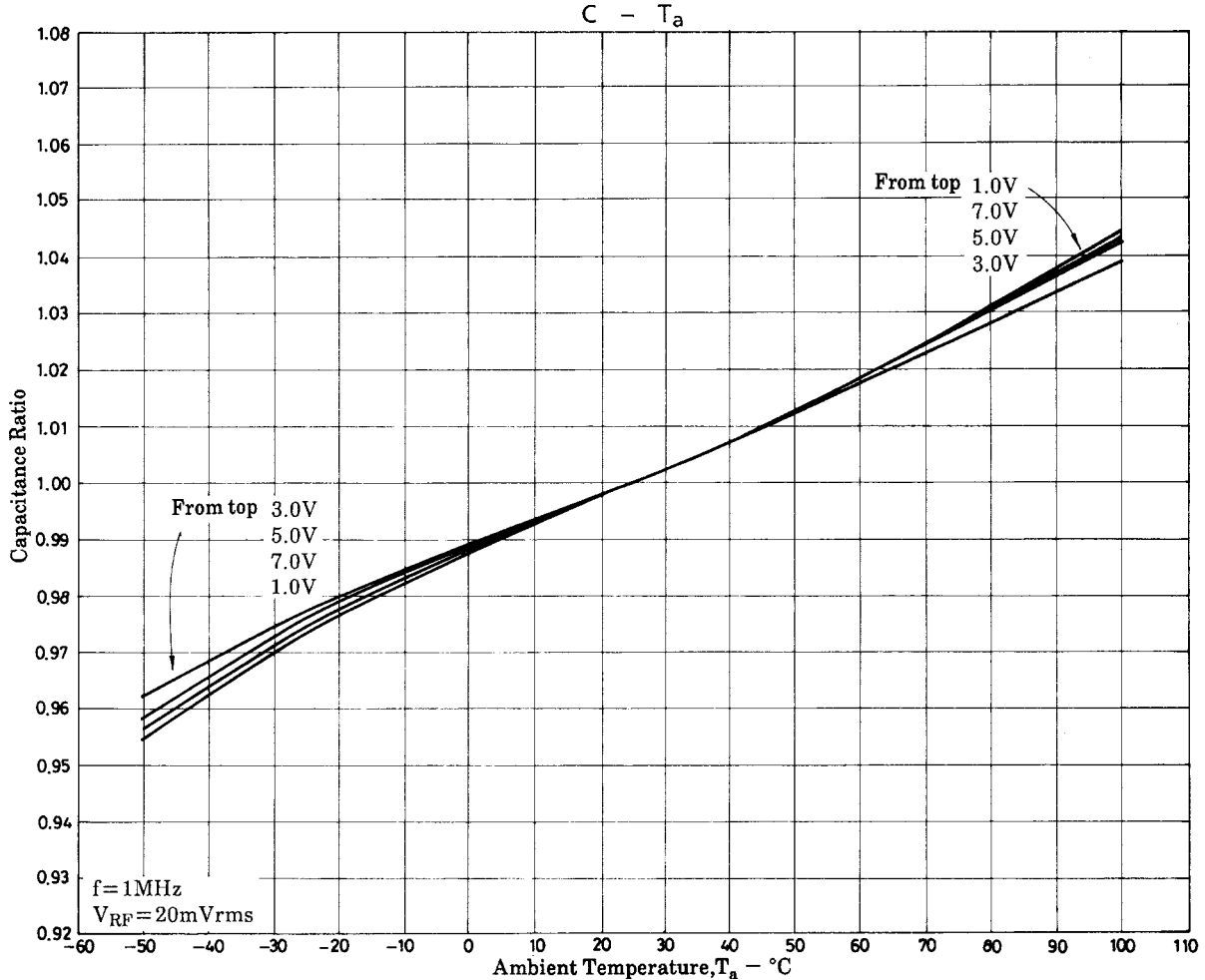
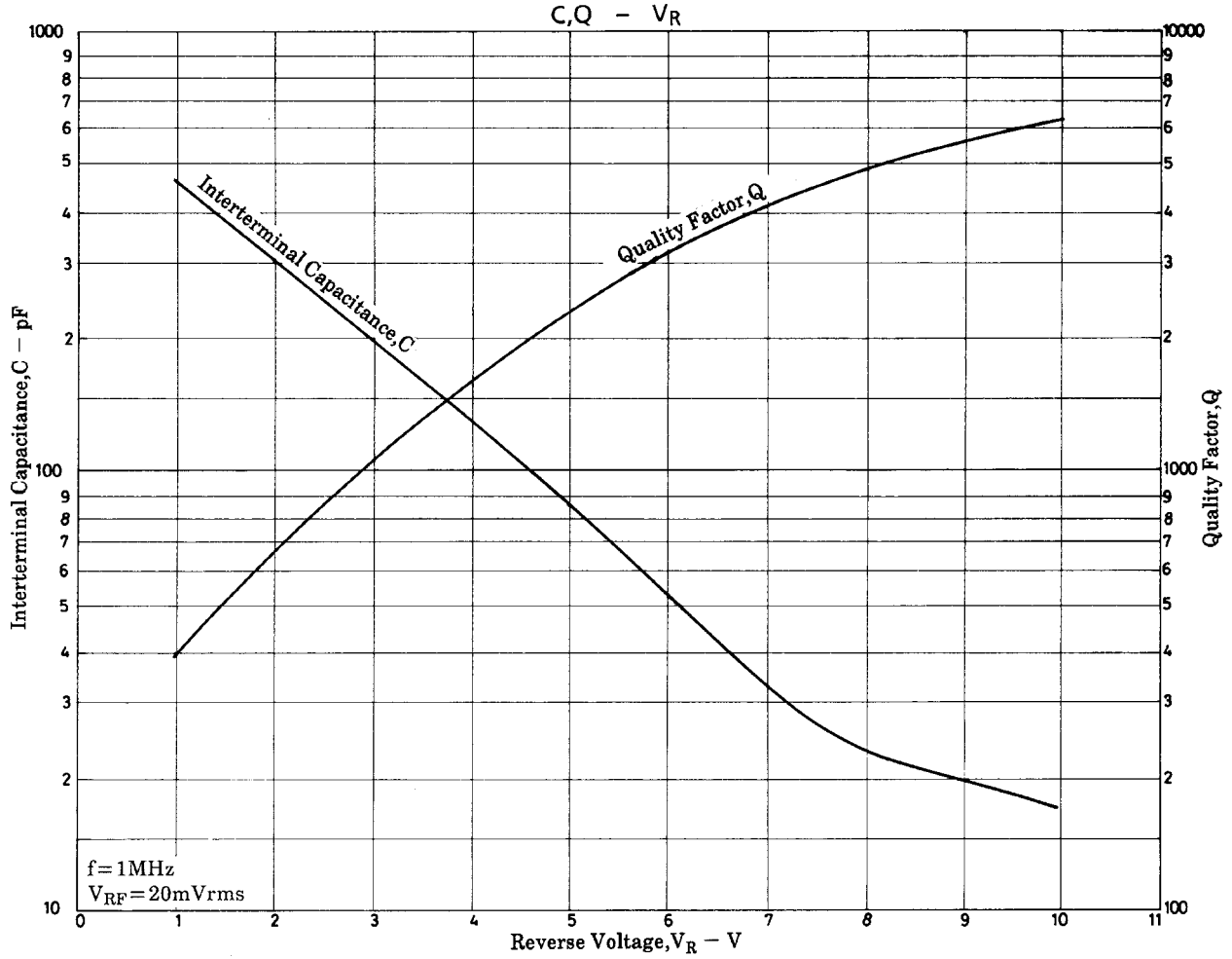
Address and Capacitance Value

TEST POINT	C _{1.2V}		C _{3.5V}		C _{6.0V}		C _{8.0V}	
	Address	Capacitance (pF)	Address	Capacitance (pF)	Address	Capacitance (pF)	Address	Capacitance (pF)
CAPACITANCE VALUE	202	(459.1 445.8)	158	(192. 186.5)	100	(60.91 59.13)	59	(27.05 26.26)
	201	(450.1 437.0)	157	(188.3 182.8)	99	(59.72 57.98)	58	(26.51 25.74)
	200	(441.3 428.4)	156	(184.6 179.2)	98	(58.54 56.83)	57	(25.99 25.23)
	199	(432.6 420.0)	155	(181.0 175.7)	97	(57.39 55.72)	56	(25.49 24.75)
	198	(424.1 411.7)	154	(177.5 172.3)	96	(56.27 54.64)	55	(24.99 24.26)
	197	(415.8 403.7)	153	(174.0 169.0)	95	(55.17 53.56)	54	(24.49 23.78)
	196	(407.7 395.8)	152	(170.5 165.6)	94	(54.08 52.51)	53	(24.01 23.31)
	195	(399.7 388.1)	151	(167.3 162.4)	93	(53.03 51.48)	52	(23.54 22.86)
			150	(164.0 159.2)	92	(51.98 50.47)	51	(23.08 22.41)
			149	(160.7 156.0)	91	(50.97 49.48)	50	(22.63 21.97)
			148	(157.6 153.0)	90	(49.96 48.51)	49	(22.19 21.54)
			147	(154.4 149.9)	89	(48.99 47.56)	48	(21.75 21.11)
			146	(151.5 147.1)	88	(48.02 46.63)	47	(21.33 20.71)
			145	(148.5 144.2)	87	(47.08 45.71)	46	(20.91 20.30)

Rnak and Address Table

c _{8.0V} \ c _{1.2V}	46	47	48	49	50	51	52	53	54	55	56	57	58	59
195														
196														
197			A								B			
198														
199														
200			C								D			
201														
202														

SVC321SPA



- 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 February, 1998. Specifications and information herein are subject to change without notice.