



# SVC208

## Silicon Diffused Junction Type Varactor Diode (IOCAP) for FM Low-Voltage Electronic Tuning

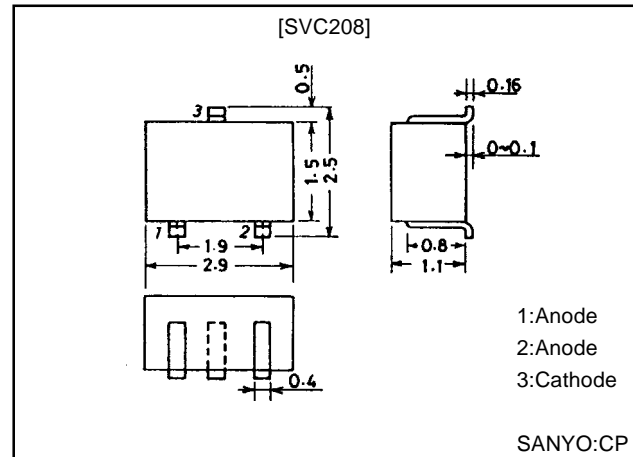
### Features

- Dual type with a good linearity of C-V characteristic. Excels in large input characteristic.
- Small-sized package (CP) available for very small-sized sets (surface mount type).
- Applicable to FM wide band due to high capacitance ratio ( $V_R=1.5$  to  $9V$ ).

### Package Dimensions

unit:mm

1169A



### Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	$V_R$		16	V
Junction Temperature	$T_j$		125	$^\circ C$
Storage Temperature	$T_{stg}$		-55 to +125	$^\circ C$

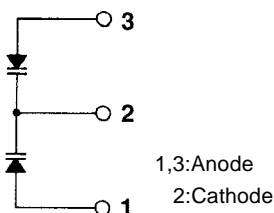
#### Electrical Characteristics at $T_a = 25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	$V_{(BR)R}$	$I_R=10\mu A$	16			V
Reverse Current	$I_R$	$V_R=10V$			50	nA
Interterminal Capacitance*	$C_{3.0V}$	$V_R=3.0V, f=1MHz$	36.92		43.03	pF
	$C_{4.5V}$	$V_R=4.5V, f=1MHz$	27.45		32.80	pF
	$C_{6.0V}$	$V_R=6.0V, f=1MHz$	19.91		25.61	pF
	$C_{8.0V}$	$V_R=8.0V, f=1MHz$	12.77		16.84	pF
Quality Factor	Q	$V_R=3.0V, f=100MHz$	60			
Capacitance Ratio	CR	$C_{3.0V}/C_{8.0V}$	2.50		3.00	
Matching Tolerance	$\Delta C_m$	$(C_{max}-C_{min})/C_{min}, V_R=2.0V$ to $8.0V$			0.03	

Note)\*:Capacitance value of one diode

- Marking:AV

### Electrical Connection



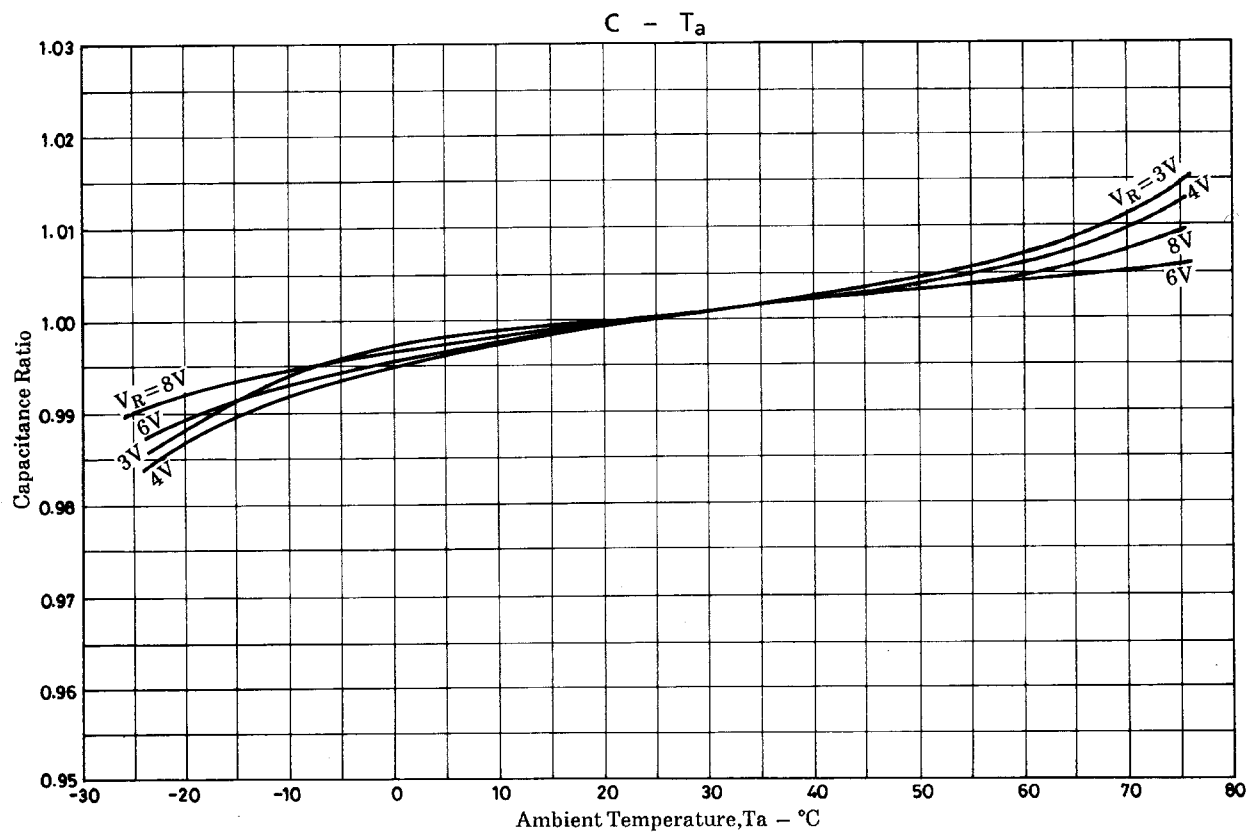
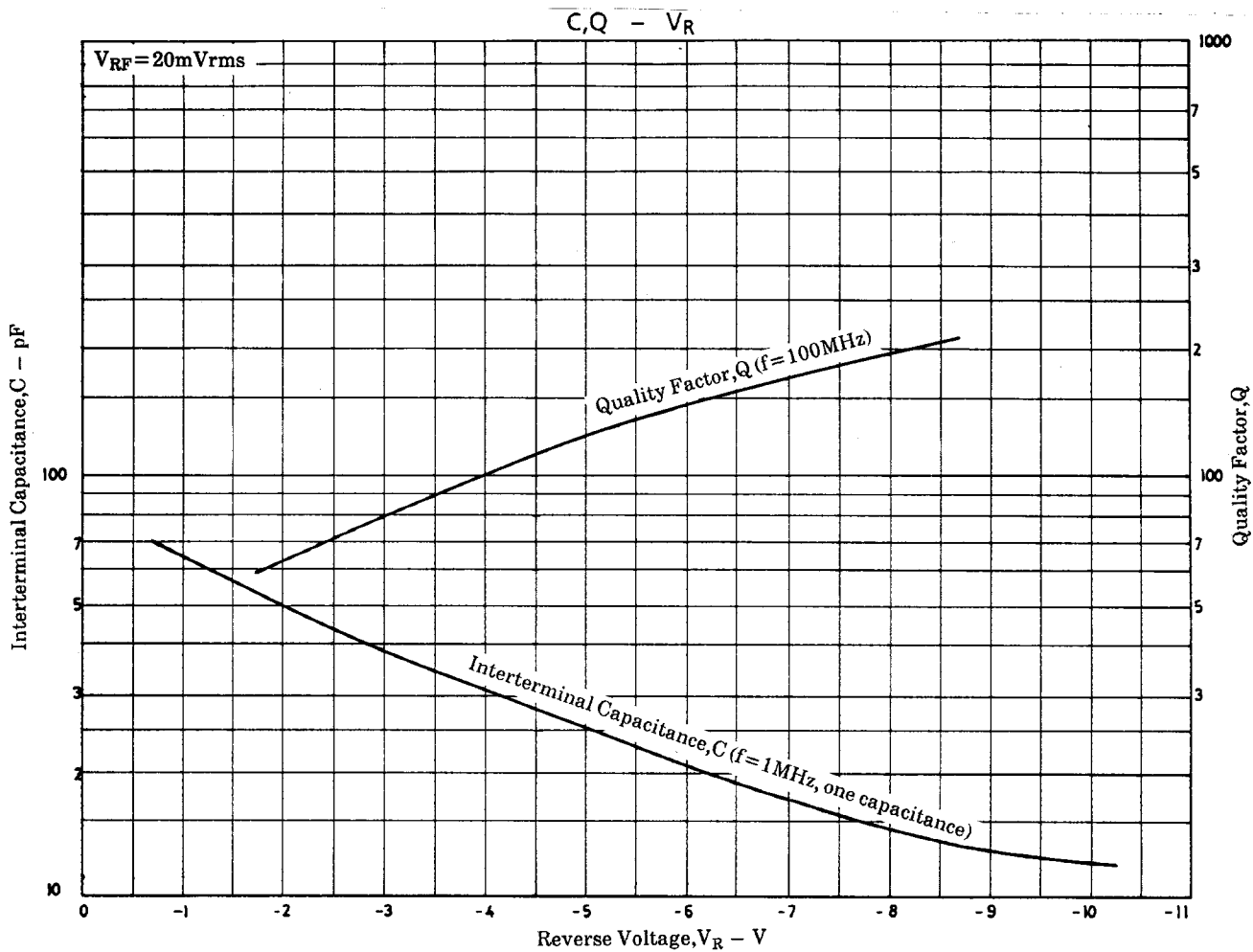
Address and Capacitance Value

V <sub>R</sub> =3.0V		V <sub>R</sub> =4.5V		V <sub>R</sub> =6.0V		V <sub>R</sub> =8.0V	
Address	Capacitance (pF)	Address	Capacitance (pF)	Address	Capacitance (pF)	Address	Capacitance (pF)
63	36.92~38.02	51	27.45~28.27	38	19.91~20.51	20	12.77~13.15
64	37.85~38.98	52	28.14~28.98	39	20.41~21.02	21	13.09~13.48
65	38.79~39.96	53	28.85~29.71	40	20.93~21.56	22	13.42~13.82
66	39.76~40.95	54	29.57~30.45	41	21.45~22.09	23	13.76~14.17
67	40.76~41.98	55	30.30~31.21	42	21.98~22.64	24	14.09~14.52
68	41.78~43.03	56	31.06~31.99	43	22.53~23.21	25	14.44~14.88
		57	31.84~32.80	44	23.09~23.78	26	14.81~15.26
				45	23.67~24.38	27	15.18~15.64
				46	24.27~25.00	28	15.56~16.03
				47	24.87~25.61	29	15.95~16.43
						30	16.35~16.84

Rank Width

C <sub>8.0V</sub> / C <sub>3.0V</sub>	20	21	22	23	24	25	26	27	28	29	30
63	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded				
64	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded			
65	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded		
66		Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	
67			Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded
68				Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded

# SVC208



- 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.