



SVC208

Silicon Diffused Junction Type
Varactor Diode (IOCAP)

for FM Low-Voltage Electronic Tuning

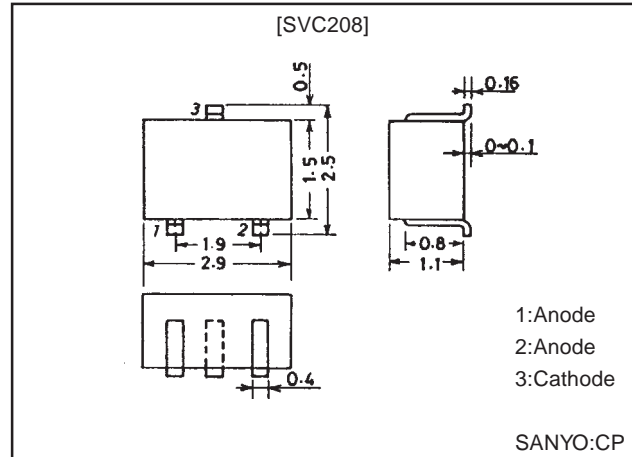
Features

- 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	$^\circ C$

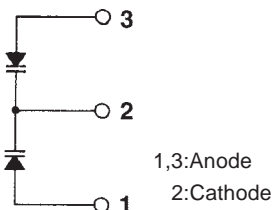
Electrical Characteristics at $T_a = 25^\circ C$

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	ΔC_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



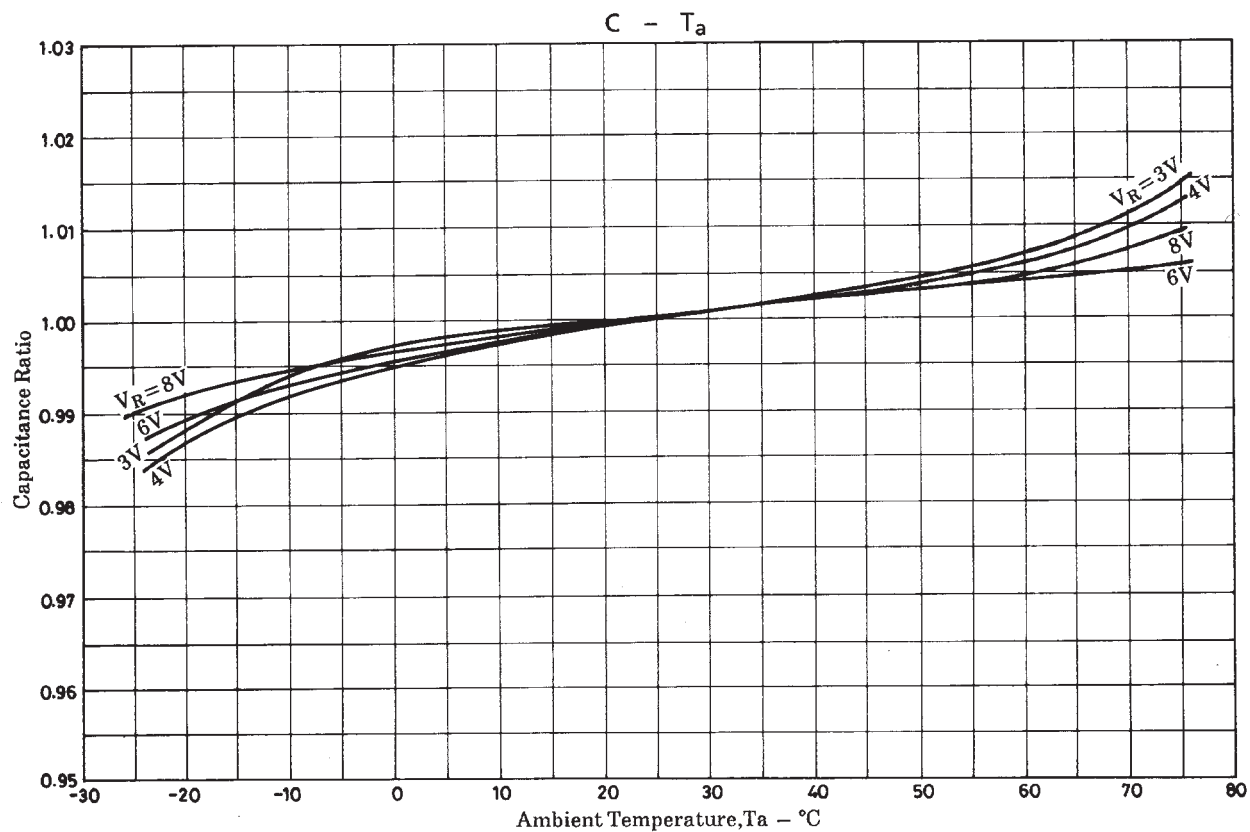
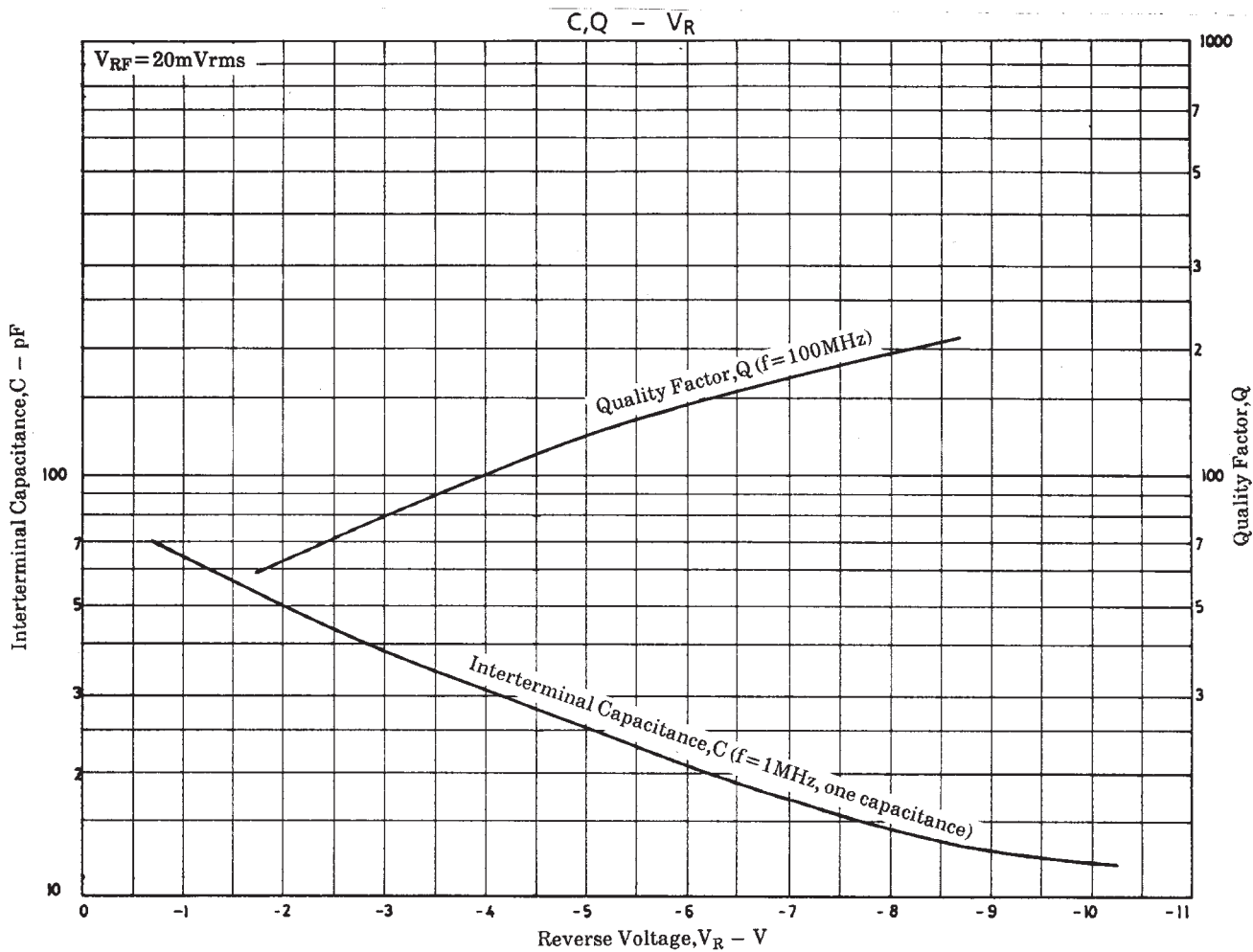
Address and Capacitance Value

V _R =3.0V		V _R =4.5V		V _R =6.0V		V _R =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 _{8.0V} / C _{3.0V}	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

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