



# SVC323

Silicon Diffused Junction Type  
Varactor Diode

for AM Low-Voltage Electronic Tuning

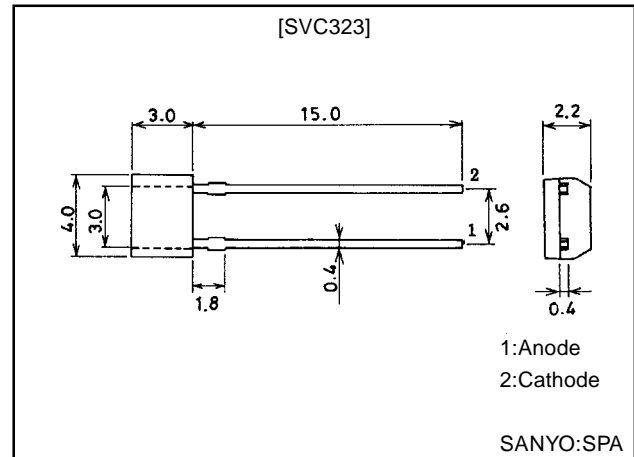
## Features

- High capacitance ratio and high quality factor.
- AM 1710kHz max. supported.

## Package Dimensions

unit:mm

1184A



## Specifications

### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	$V_R$		16	V
Junction Temperature	$T_J$		125	°C
Storage Temperature	$T_{stg}$		-55 to +125	°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	$C_{1V}$	$V_R=1V, f=1MHz^*1$	462.8		536.7	pF
	$C_{6V}$	$V_R=6V, f=1MHz$	45.72		59.72	pF
	$C_{8V}$	$V_R=8V, f=1MHz$	21.12		27.05	pF
Quality Factor	Q	$V_R=1V, f=100MHz$	200			
Capacitance Ratio	CR	$C_{1.0V}/C_{8.0V}, f=1MHz$	17.5		24.5	
Matching Tolerance	$\Delta C_m$	$(C_{max}-C_{min})/C_{min} \times 100$			3.0	%

Note)\*1:1MHz signal:20m Vrms

Note)\*:The SVC323 is classified by  $C_{1.0V}$  as follows:

Rank	$C_{1.0V}$
R	462.8 to 486.2pF
S	481.5 to 515.9pF
T	551.0 to 536.7pF

(Specify two ranks or more in principle.)

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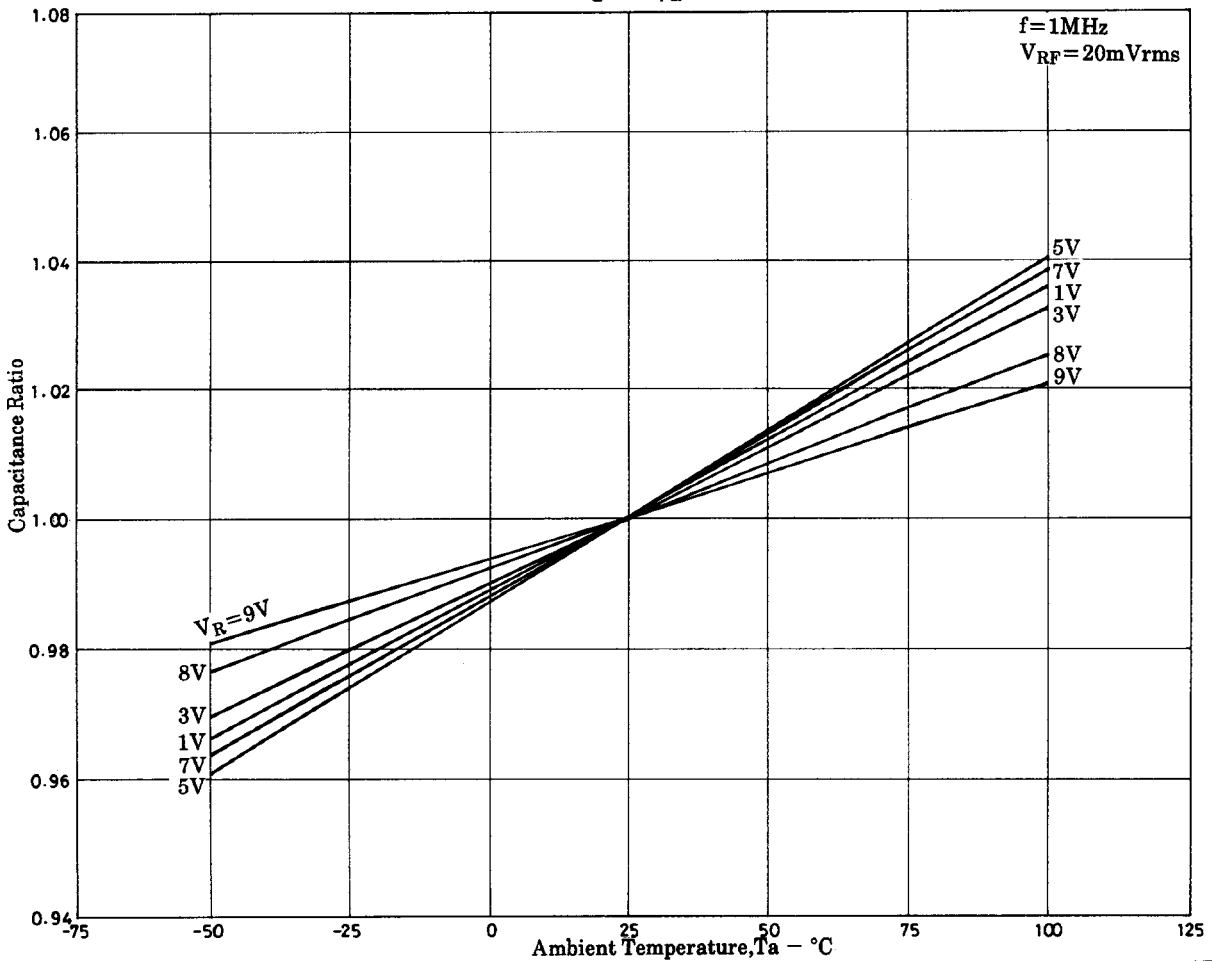
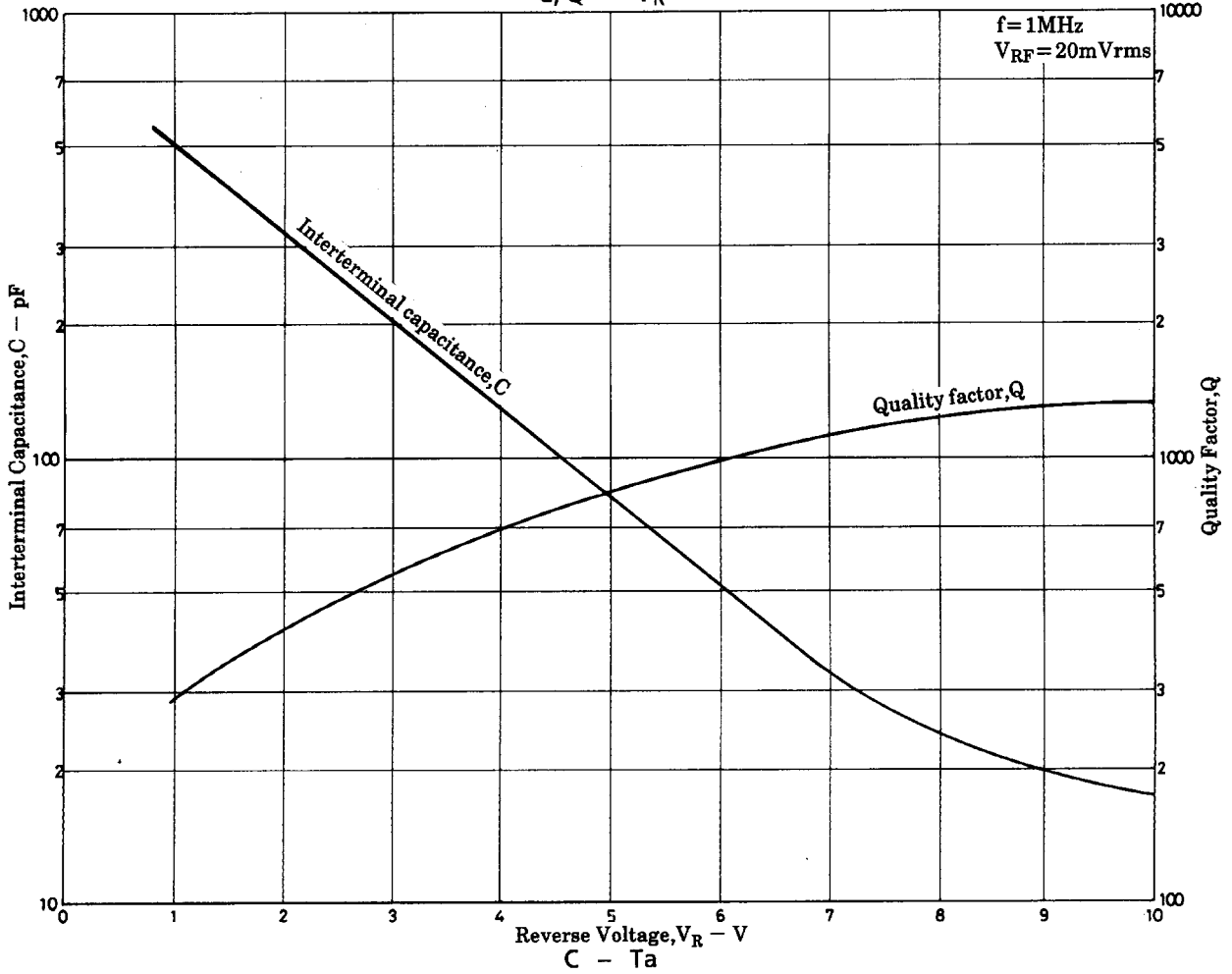
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### Address and Capacitance Value

Test Point	C <sub>1.0V</sub>		C <sub>6.0V</sub>		C <sub>8.0V</sub>	
	Address	Capacitance (pF)	Address	Capacitance (pF)	Address	Capacitance (pF)
Capacitance Value	204	( 462.8 476.6	87	( 45.72 47.09	48	( 21.12 21.75
	205	( 472.1 486.2	88	( 46.63 48.03	49	( 21.54 22.19
	206	( 481.5 495.9	89	( 47.57 48.99	50	( 21.97 22.63
	207	( 491.1 505.8	90	( 48.52 49.97	51	( 22.41 23.08
	208	( 500.9 515.9	91	( 49.49 50.97	52	( 22.86 23.55
	209	( 511.0 526.3	92	( 50.48 51.99	53	( 23.32 24.02
	210	( 521.1 536.7	93	( 51.49 53.03	54	( 23.78 24.50
			94	( 52.52 54.09	55	( 24.26 24.99
			95	( 53.57 55.17	56	( 24.74 25.49
			96	( 54.64 56.28	57	( 25.24 26.00
			97	( 55.73 57.40	58	( 25.74 26.52
			98	( 56.84 58.55	59	( 26.26 27.05
			99	( 57.98 59.72		

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C, Q -  $V_R$



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