



SVC323

Silicon Diffused Junction Type
Varactor Diode

for AM Low-Voltage Electronic Tuning

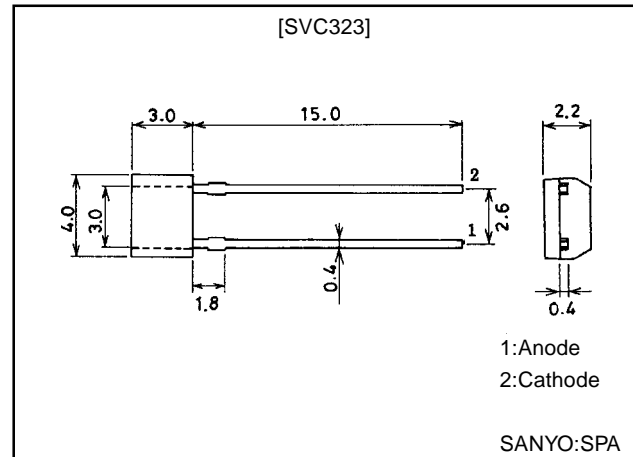
Features

- 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	ΔC_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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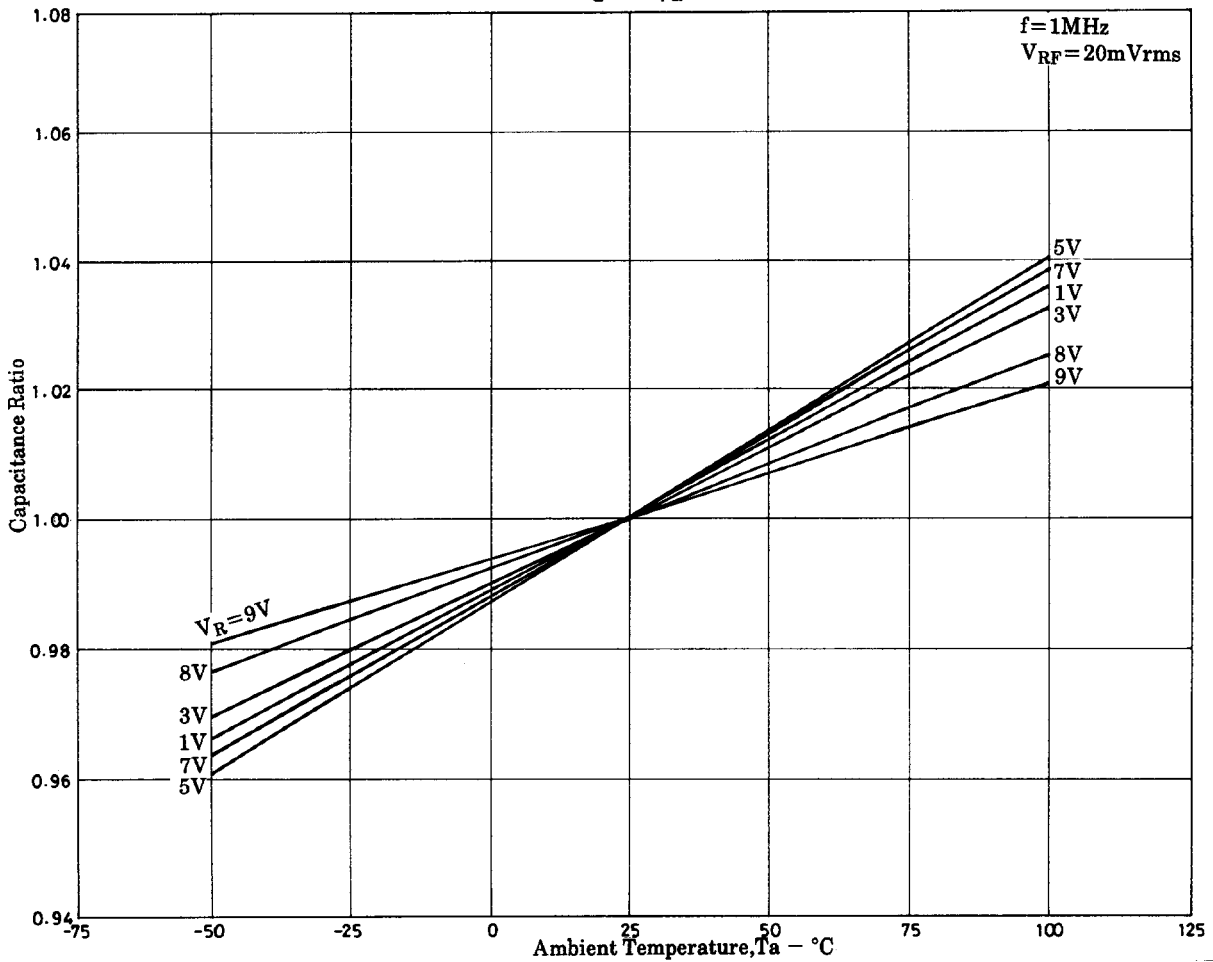
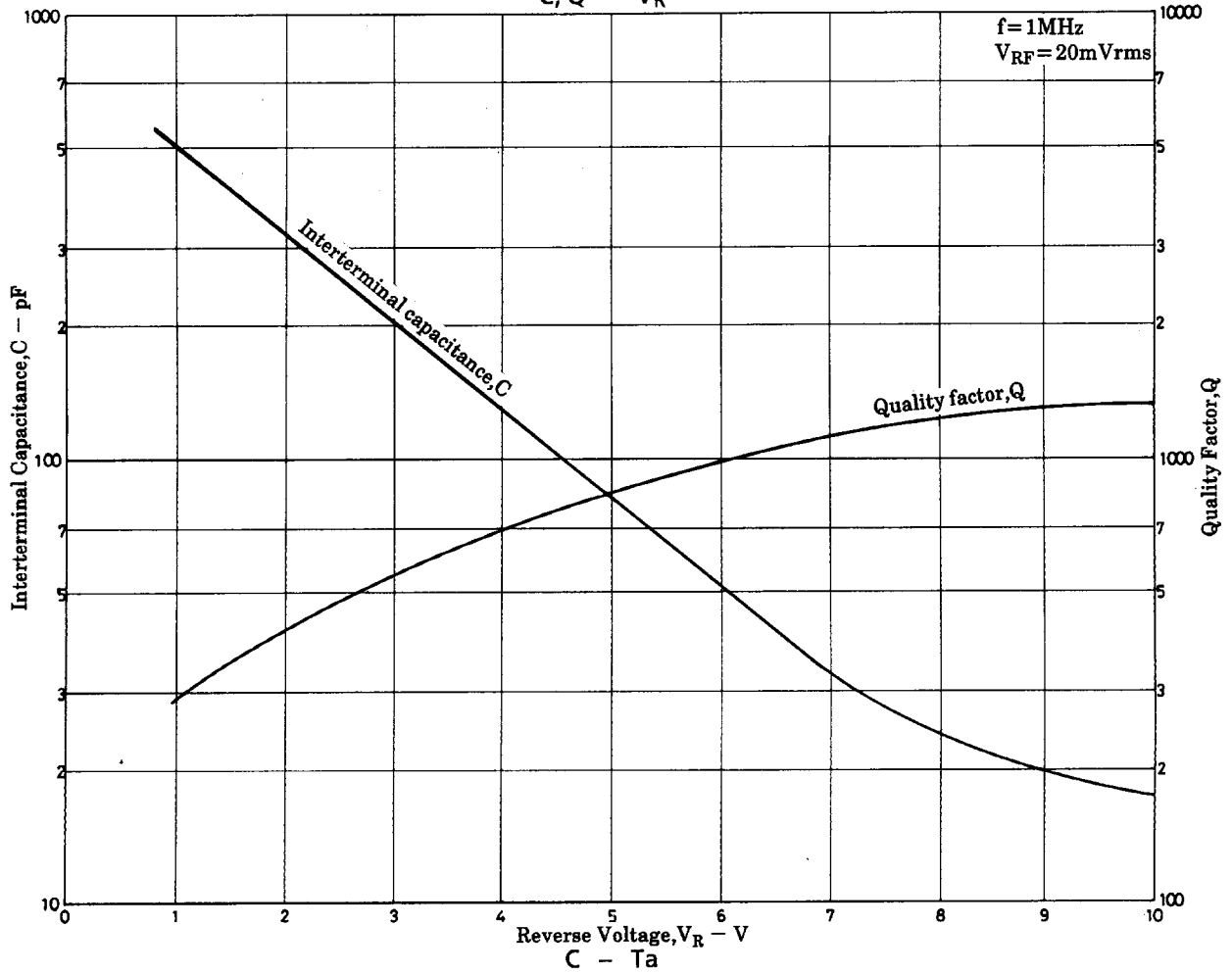
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Address and Capacitance Value

Test Point	C _{1.0V}	C _{6.0V}	C _{8.0V}
	(pF)	(pF)	(pF)
	Address Capacitance	Address Capacitance	Address Capacitance
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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