Ordering number :EN4651A

SVC343

Silicon Diffused Junction Type

Varactor Diode

for AM Low-Voltage Electronic Tuning

Features

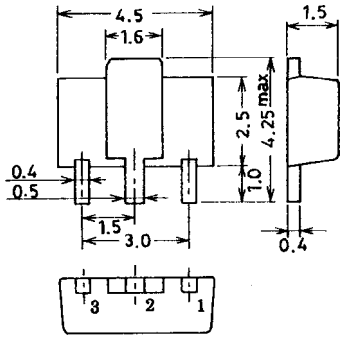
- Twin type varactor diode for low-voltage AM electronic tuning applications.
- Low voltage (4.5V).
- High Q
- Packing on continuous tape is available.
- Surface mount type.

Package Dimensions

unit:mm

1222A

[SVC343]



1:Anode
2:Cathode
3:Anode

SANYO:PCP
(Bottom view)

Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	VR		30	V
Junction Temperature	Tj		125	˚C
Storage Temperature	Tstg		–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=10μA	30			V
Reverse Current	I_R	V_R=20V			100	nA
Interterminal Capacitance*1	$C_{1.0V}$	V_R=1.0V, f=1MHz*2	410.0	430.0	445.0	pF
	$C_{3.0V}$	V_R=3.0V, f=1MHz	70.0	95.0	120.0	pF
	$C_{4.5V}$	V_R=4.5V, f=1MHz	21.0	23.5	26.0	pF
Quality Factor	Q	V_R=1.0V, f=1MHz	200			
Capacitance Ratio	CR	$C_{1.0V}/C_{4.5V}$	15.0			
Matching Tolerance*3	ΔC_m1	V_R=1.0V, f=1MHz			2.0	%
	ΔC_m2	V_R=3.0V, f=1MHz			3.0	%
	ΔC_m3	V_R=4.5V, f=1MHz			3.0	%

Note)*1:The value of interterminal capacitance represent the average of measurements for tow elements.

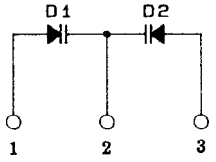
Note)*2:1MHz signal:20mVrms

Note)*3:$\Delta C_m=(C_{max}-C_{min})/C_{min}\times 100$ Between D1 and D2

Note) The specifications shown above are for each individual diode.

· Marking:VC

Electrical Connection



1:Anode
2:Cathode
3:Anode

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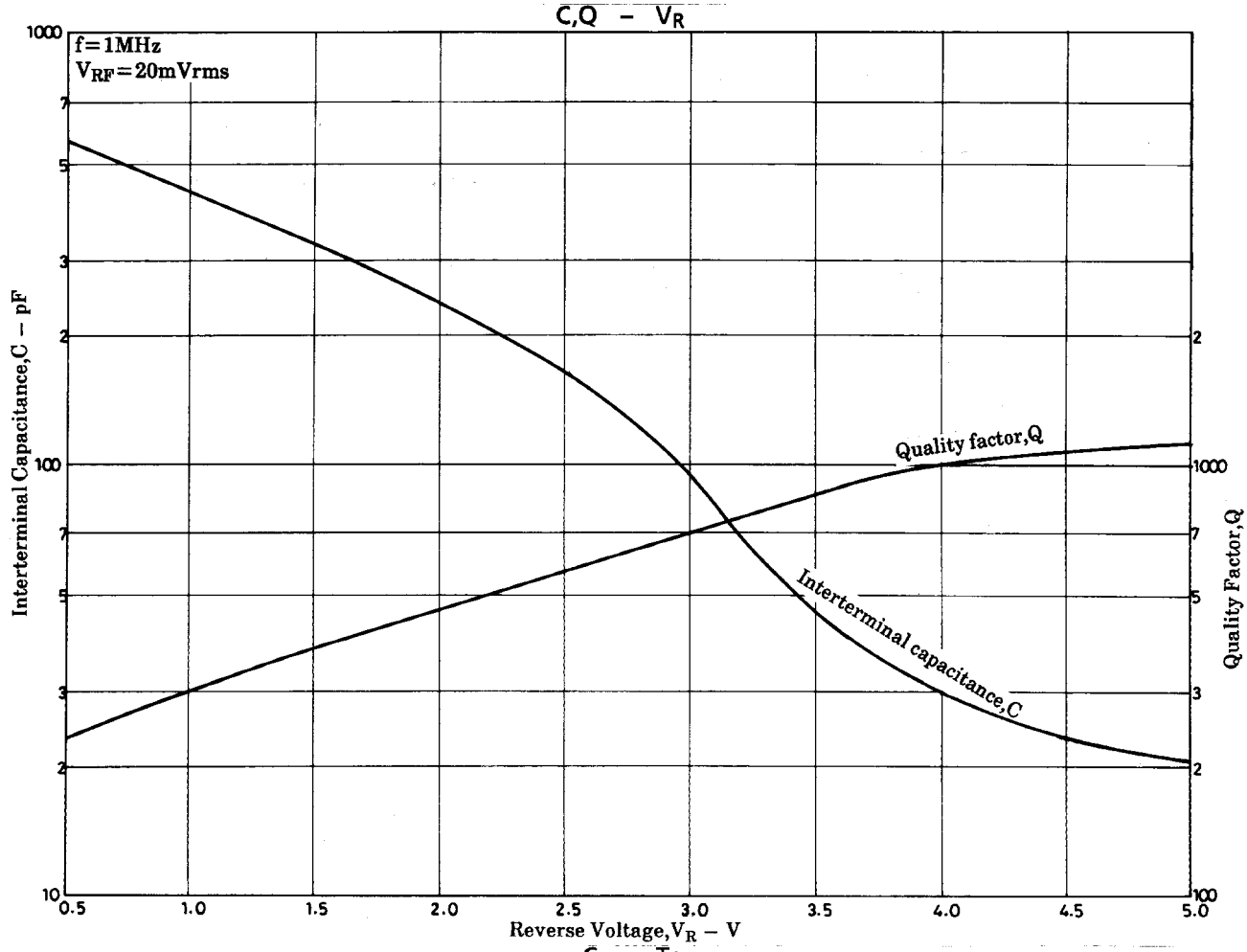
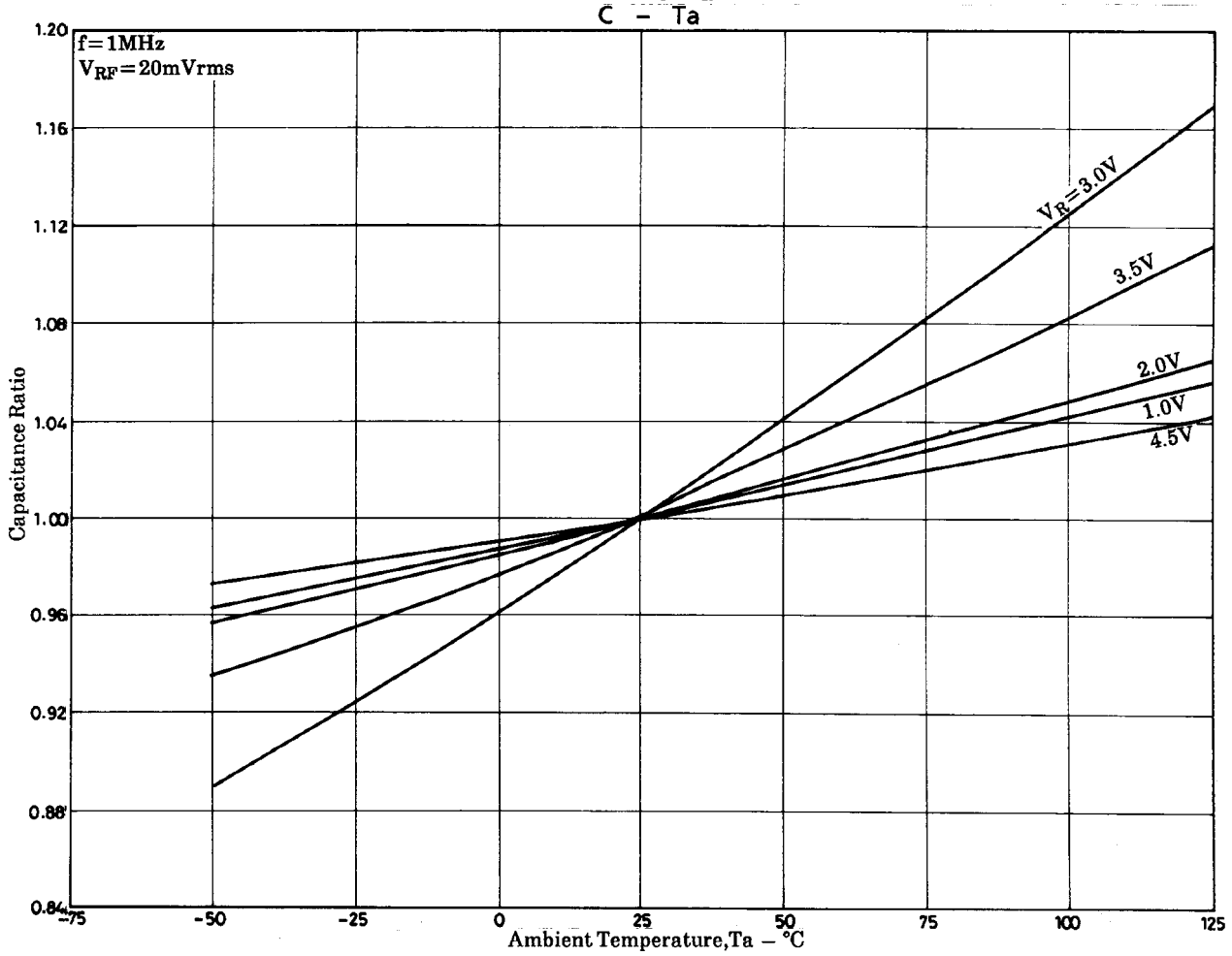
C,Q – V_R


f=1MHz
V_{RF}=20mVrms
Interterminal Capacitance,C – pF
Quality Factor,Q
Quality factor,Q
Interterminal capacitance,C
Reverse Voltage,V_R – V
1000
100
10
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0

C – Ta


f=1MHz
V_{RF}=20mVrms
Capacitance Ratio
V_R=3.0V
3.5V
2.0V
1.0V
4.5V
Ambient Temperature,Ta – °C
1.20
1.16
1.12
1.08
1.04
1.00
0.96
0.92
0.88
0.84
-75
-50
-25
0
25
50
75
100
125