Ordering number :EN5346

SVC345

Silicon Diffused Junction Type

Varactor Diode for AM Low-Voltage Electronic Tuning

Features

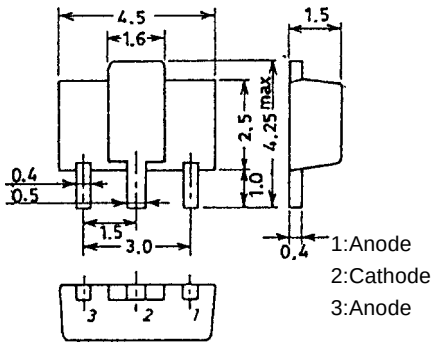
- Twin type varactor diode for low-voltage AM electronic tuning applications.
- Low operating voltage (≤6.5V).
- High Q.
- Possible to offer the SVC345 devices in a tape reel packaging.
- Surface mount type.

Package Dimensions

unit:mm

1222A

[SVC345]



SANYO:PCP

Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		33	V
Junction Temperature	Tj		125	˚C
Storage Temperature	Tstg		–55 tp +125	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	$V_{(BR)R}$	I_R=10μA	33			V
Reverse Current	I_R	V_R=20V			100	nA
Interterminal Capacitance*1	$C_{1.0V}$	V_R=1.0V, f=1MHz*2	460.0*		540.0*	pF
	$C_{4.5V}$	V_R=4.5V, f=1MHz		64.0		pF
	$C_{6.5V}$	V_R=6.5V, f=1MHz	21.0		27.0	pF
Quality Factor	Q	V_R=1.0V, f=1MHz	200			
Capacitance Ratio	CR	$C_{1.0V}/C_{6.5V}$	17.5		24.5	
Matching Tolerance	ΔC_m	$(C_{max}–C_{min})/C_{min}\times 100$ (Between D1 to D2) V_R=1V to 6.5V			2.0	%

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

Note)*2:1MHz signal:20mVrms.

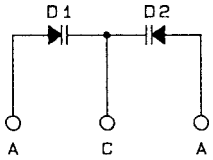
Note)*:The SVC345 are classified by $C_{1.0V}$ as follows:

Rank	$C_{1.0V}$(pF)
R	460.0 to 491.0
S	482.0 to 515.0
T	505.0 to 540.0

· Marking:VB

Capacitance Rank:R, S, T

Electrical Connection



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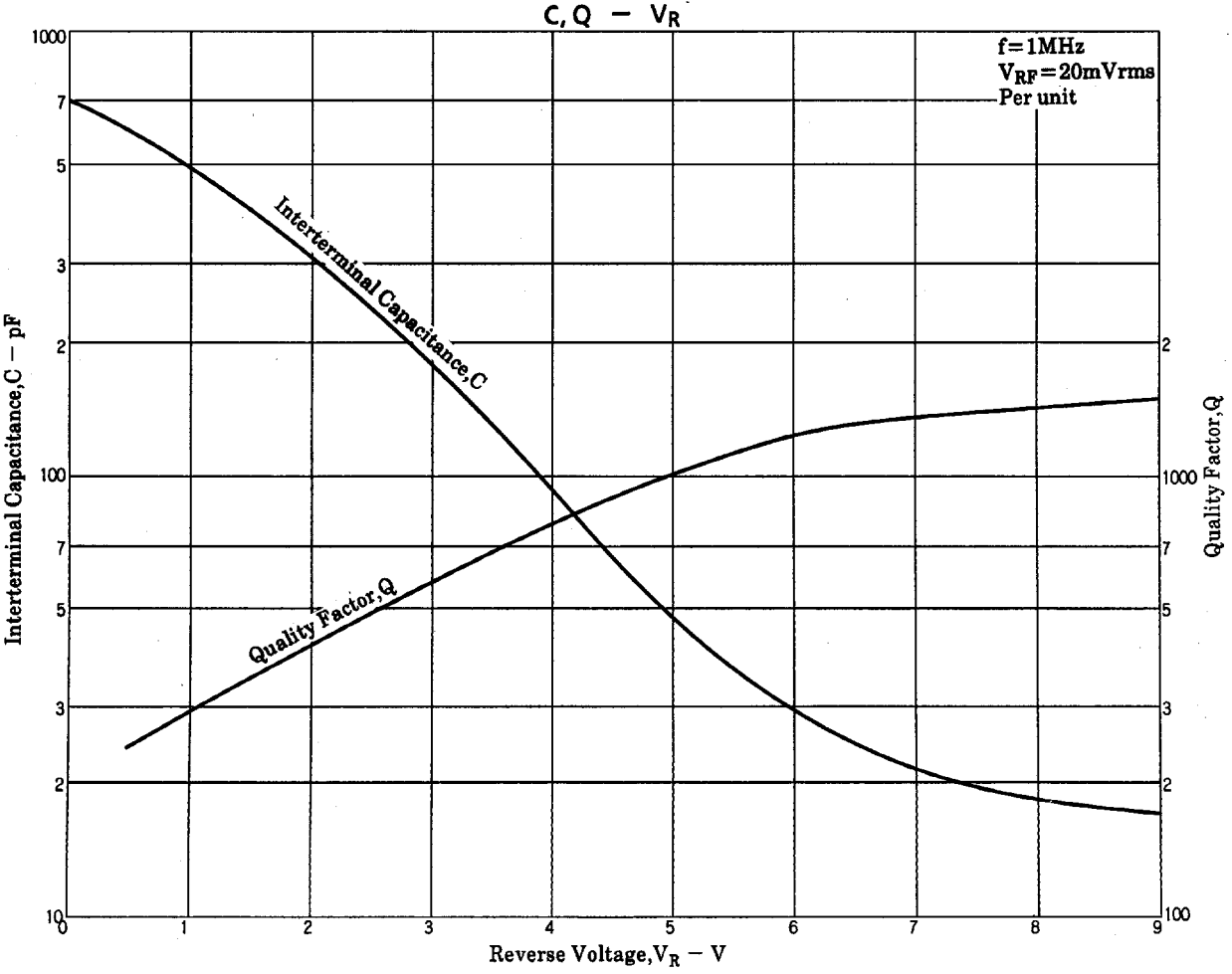
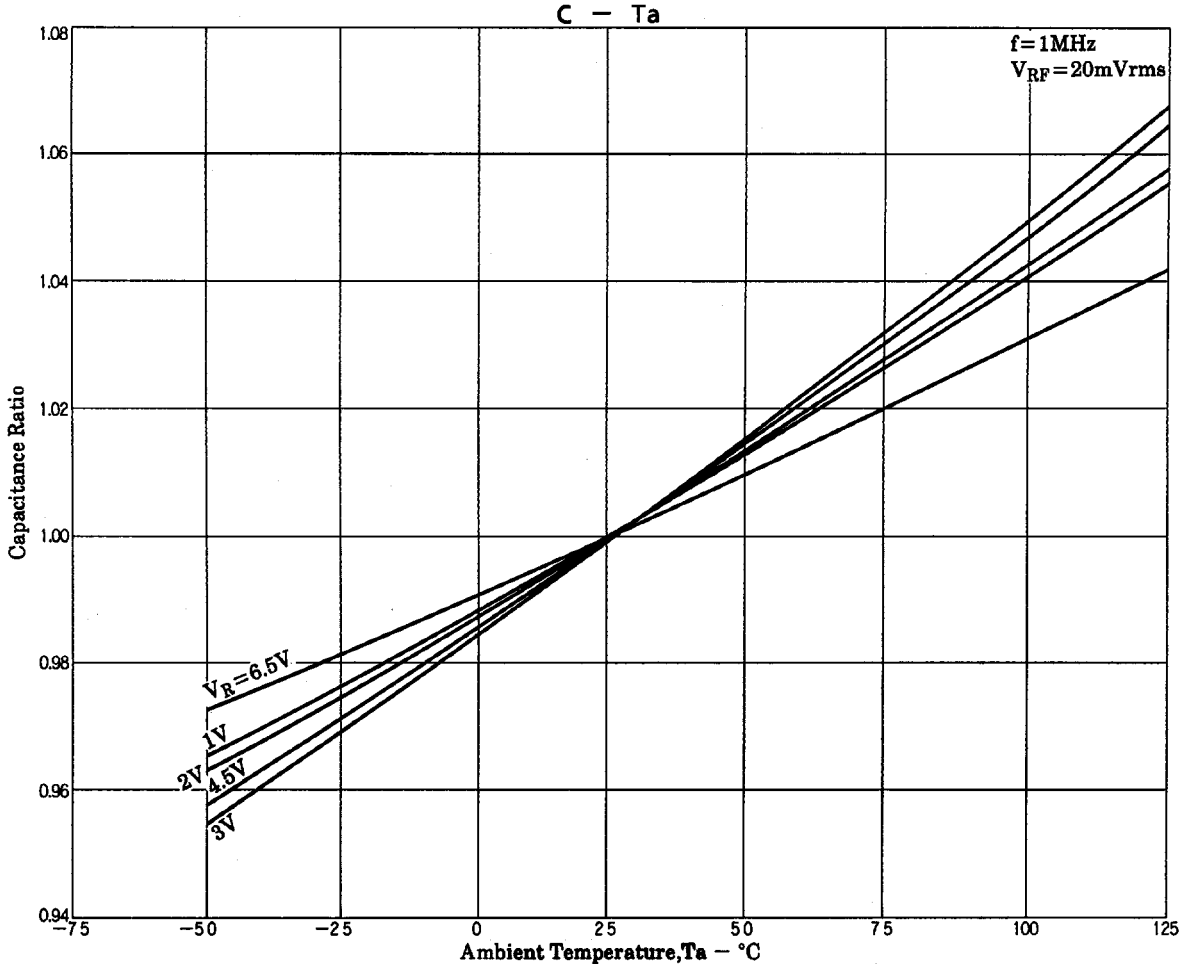
C, Q — V_R


f=1MHz
VRF=20mVrms
Per unit
Interterminal Capacitance,C
Quality Factor,Q
Interterminal Capacitance,C — pF
Quality Factor,Q
Reverse Voltage,VR — V
1000
7
5
3
2
100
7
5
3
2
10
2
1000
7
5
3
2
100
0
1
2
3
4
5
6
7
8
9

C — Ta


f=1MHz
VRF=20mVrms
VR=6.5V
1V
2V
4.5V
3V
Capacitance Ratio
Ambient Temperature,Ta — °C
1.08
1.06
1.04
1.02
1.00
0.98
0.96
0.94
−75
−50
−25
0
25
50
75
100
125