Ordering number:ENN6265

Diffused Junction Type Silicon Composite Varactor

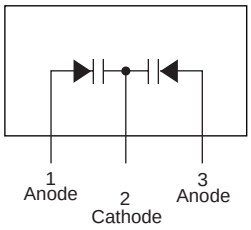
SVC384

AM Low Voltage Electronic Tuning Applications

Features

- Twin type varactor diode for low-voltage AM electronic tuning use.
- Low voltage (6.5V).
- High Q.

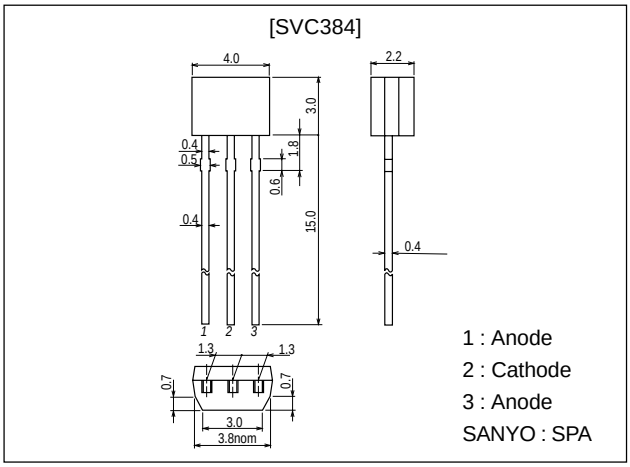
Electrical Connection



Package Dimensions

unit:mm

1292



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 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	33			V
Reverse Current	I_R	V_R=20V			100	nA
Interterminal Capacitance *1	C_{1V}	V_R=1V, f=1MHz *2	482*		540*	pF
	$C_{4.5V}$	V_R=4.5V, f=1MHz		64		pF
	$C_{6.5V}$	V_R=6.5V, f=1MHz	21		27	pF
Quality Factor	Q	V_R=1V, f=1MHz	200			
Capacitance Ratio	CR	$C_{1V}/C_{6.5V}$	17.5		24.5	
Matching Tolerance	ΔCm	(Cmax–Cmin)/Cmin ×100 (Between D1 and D2) V_R=1V to 6.5V			2.0	%

*1 : The values of interterminal capacitance represent the average of measurements for two elements.
*2 : 1MHz signal : 20mVrms
* : SVC384 are classified by C_{1V} as follows :

Rank	C_{1V}(pF)
S	482 to 515
T	505 to 540

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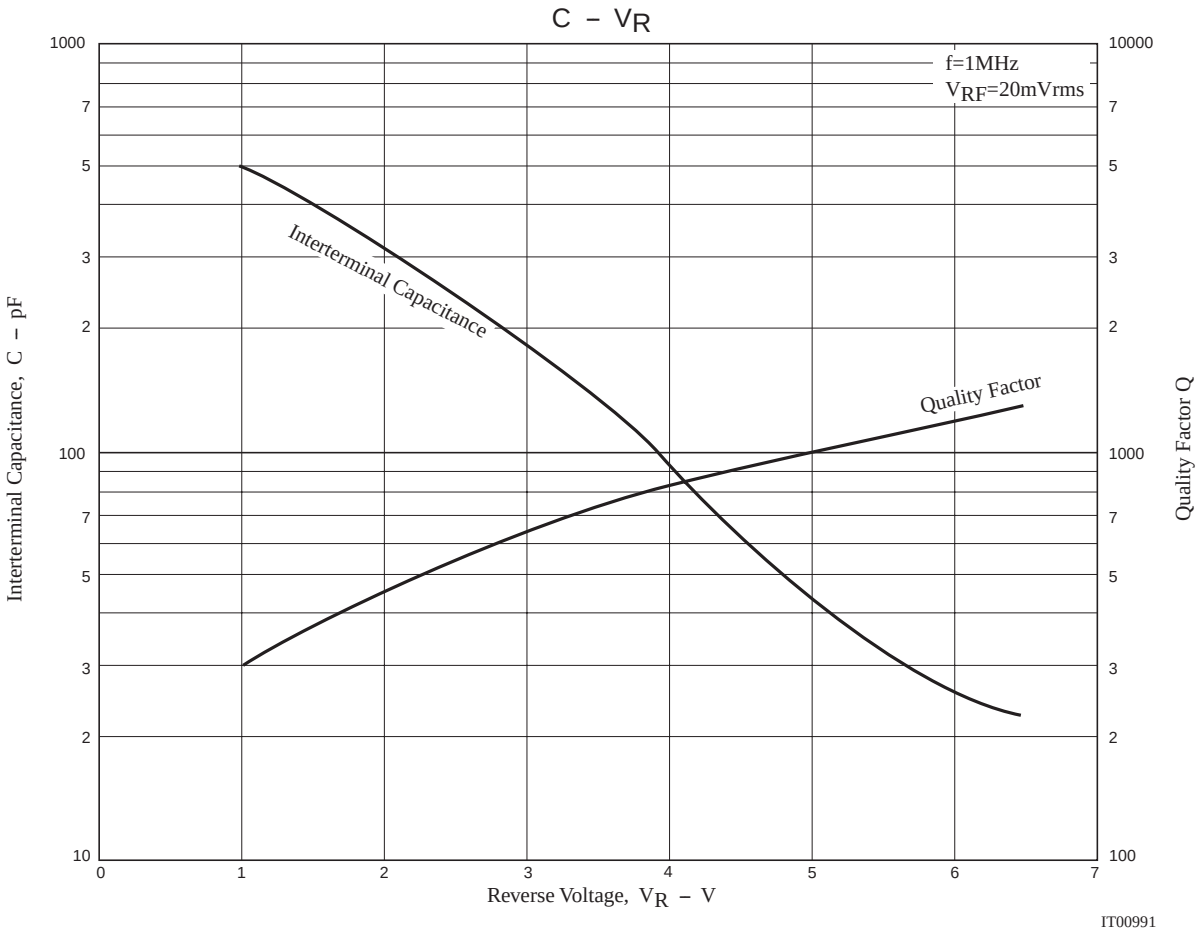
C – VR
f=1MHz
VRF=20mVrms
Interterminal Capacitance
Quality Factor
Interterminal Capacitance, C – pF
Quality Factor Q
Reverse Voltage, VR – V
1000
7
5
3
2
100
7
5
3
2
10
10000
7
5
3
2
1000
7
5
3
2
100
0
1
2
3
4
5
6
7
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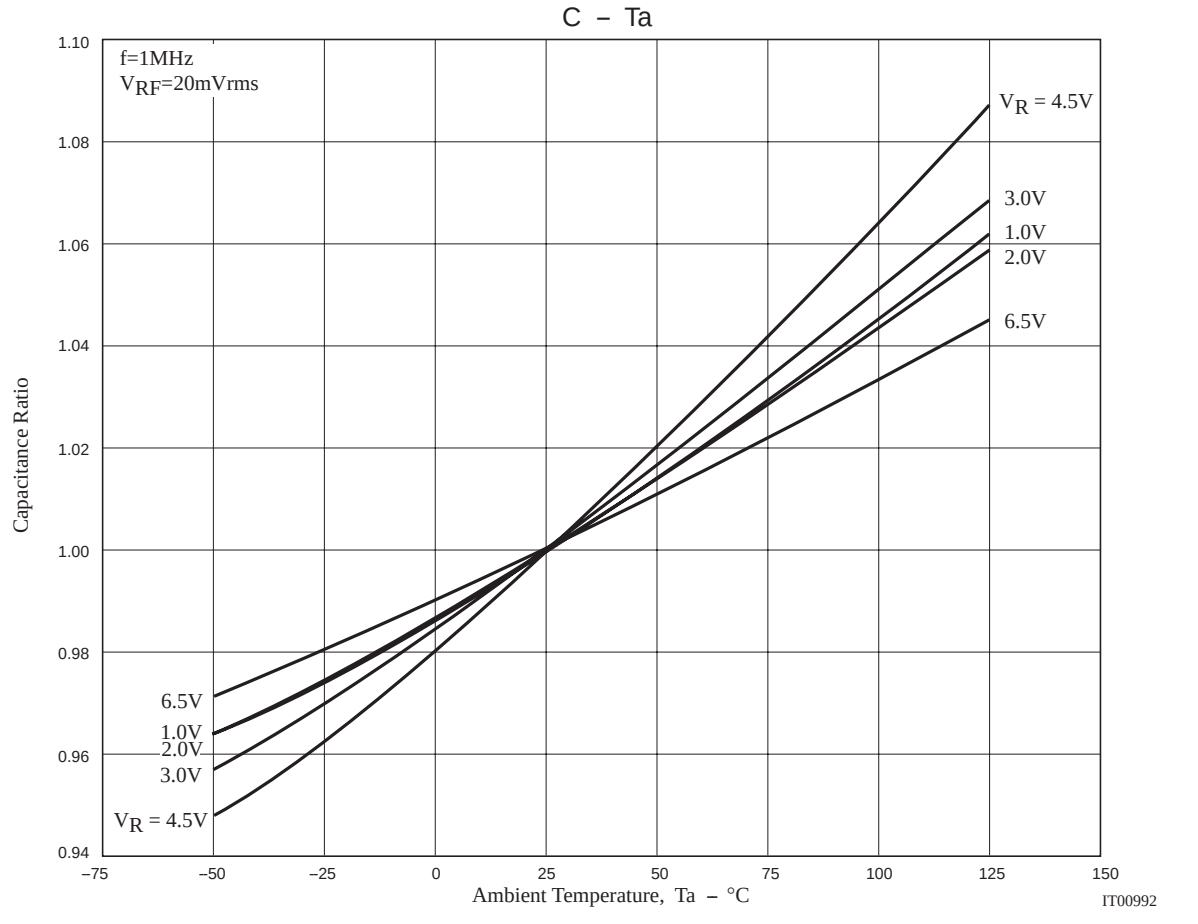
C – Ta
f=1MHz
VRF=20mVrms
VR = 4.5V
3.0V
1.0V
2.0V
6.5V
6.5V
1.0V
2.0V
3.0V
VR = 4.5V
Capacitance Ratio
Ambient Temperature, Ta – °C
1.10
1.08
1.06
1.04
1.02
1.00
0.98
0.96
0.94
–75
–50
–25
0
25
50
75
100
125
150
IT00992

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