



# SVC381 — AM Low Voltage Electronic Tuning Applications

Diffused Junction Type Silicon Composite Varactor

## Features

- Twin type varactor diode for low-voltage AM electronic tuning use.
- Low voltage (4.5V).
- High Q.
- Possible to offer the SVC381 devices in a tape reel packaging.
- Surface mount type.
- Small-sized package permitting SVC381-applied sets to be compact and slim.

## Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V <sub>R</sub>		16	V
Junction Temperature	T <sub>J</sub>		125	°C
Storage Temperature	T <sub>stg</sub>		-55 to +125	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	V <sub>(BR)R</sub>	I <sub>R</sub> =10μA	16			V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =9.0V			100	nA
Interterminal Capacitance *1	C <sub>1.0V</sub>	V <sub>R</sub> =1.0V, f=1MHz *2	410		445	pF
	C <sub>3.0V</sub>	V <sub>R</sub> =3.0V, f=1MHz	60		110	pF
	C <sub>4.5V</sub>	V <sub>R</sub> =4.5V, f=1MHz	21		26	pF
Quality Factor	Q	V <sub>R</sub> =1.0V, f=1MHz	200			
Capacitance Ratio	C <sub>R</sub>	C <sub>1.0V</sub> / C <sub>4.5V</sub>	15			
Matching Tolerance *3	ΔC <sub>m1</sub>	V <sub>R</sub> =1.0V, f=1MHz			2	%
	ΔC <sub>m2</sub>	V <sub>R</sub> =3.0V, f=1MHz			3	%
	ΔC <sub>m3</sub>	V <sub>R</sub> =4.5V, f=1MHz			3	%

\*1 : The values of interterminal capacitance represent the average of measurements for two elements.

\*2 : 1MHz signal : 20mVrms.

\*3 : (C<sub>max</sub>-C<sub>min</sub>) / C<sub>min</sub>×100 Between D1 and D2.

Marking : V4

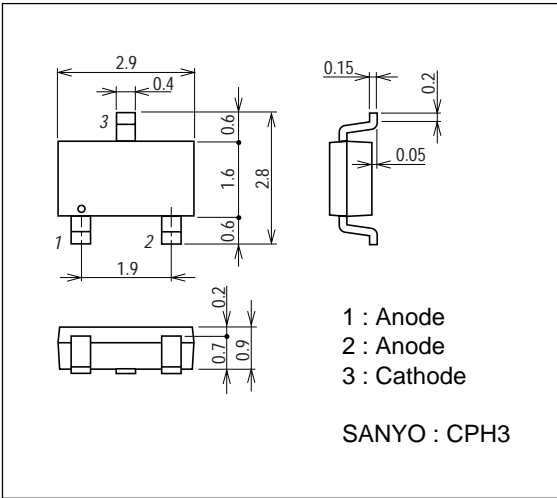
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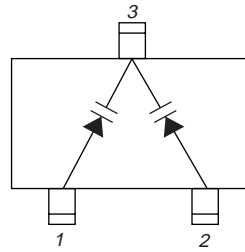
**Package Dimensions**

unit : mm

1291A

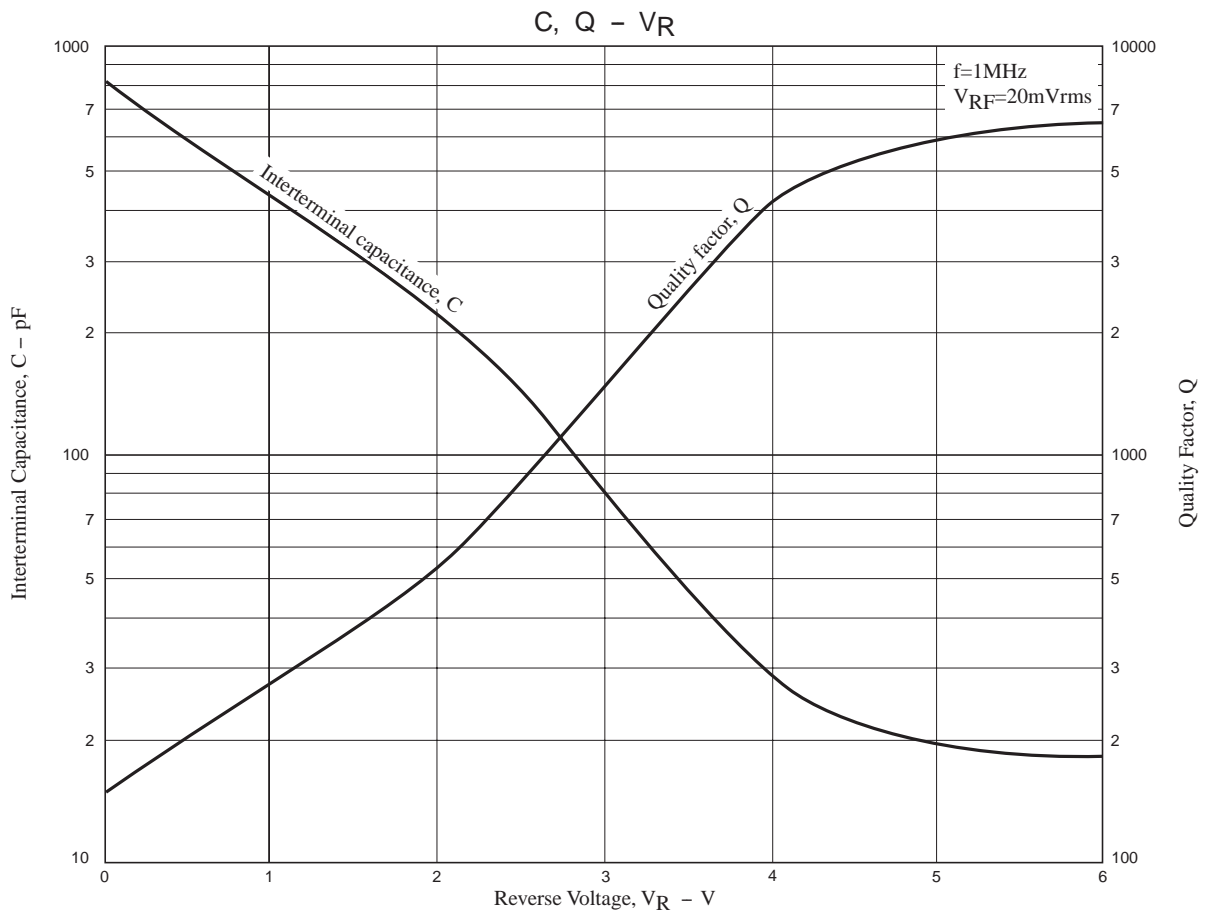


**Electrical Connection**



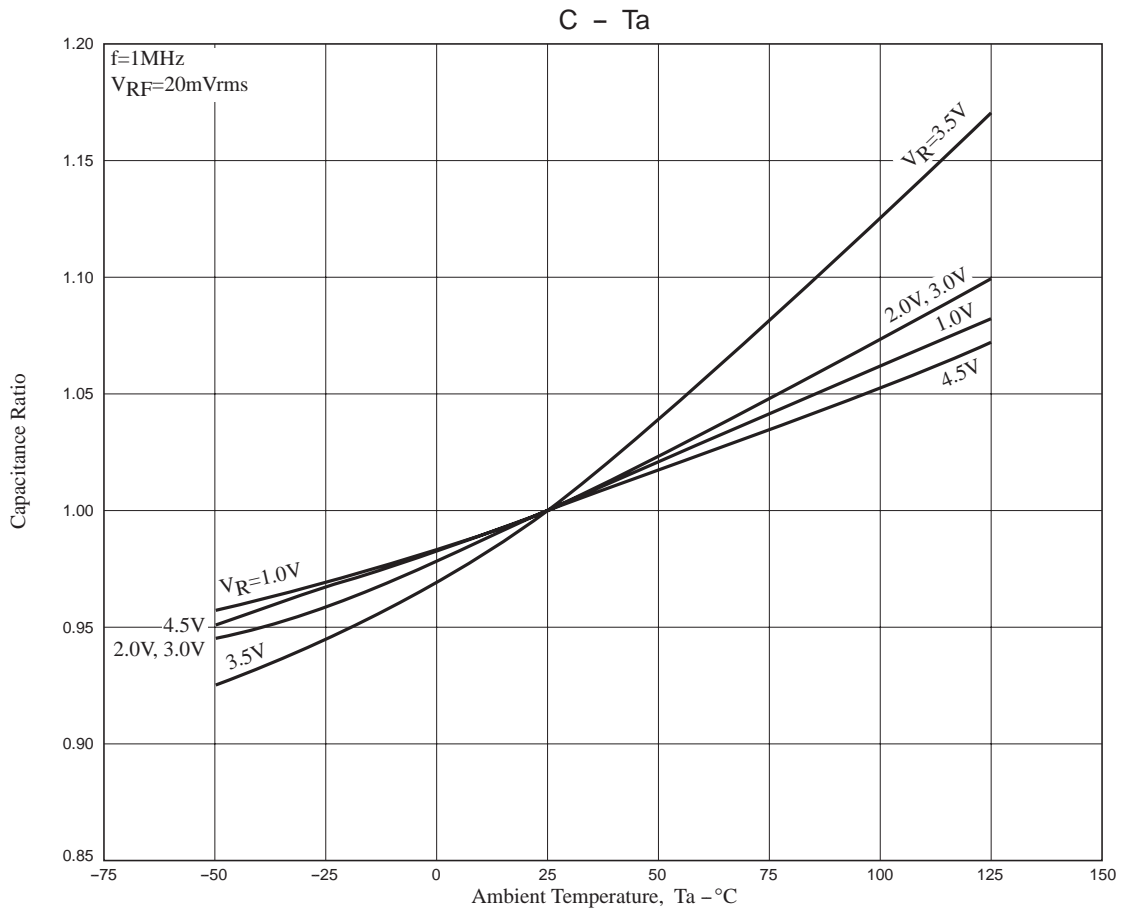
1 : Anode  
2 : Anode  
3 : Cathode

Top view



IT06915

# SVC381



IT06916

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