

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 _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 =10μA	16			V
Reverse Current	I _R	V _R =9.0V			100	nA
Interterminal Capacitance *1	C _{1.0V}	V _R =1.0V, f=1MHz *2	410		445	pF
	C _{3.0V}	V _R =3.0V, f=1MHz	60		110	pF
	C _{4.5V}	V _R =4.5V, f=1MHz	21		26	pF
Quality Factor	Q	V _R =1.0V, f=1MHz	200			
Capacitance Ratio	C _R	C _{1.0V} / C _{4.5V}	15			
Matching Tolerance *3	ΔC _{m1}	V _R =1.0V, f=1MHz			2	%
	ΔC _{m2}	V _R =3.0V, f=1MHz			3	%
	ΔC _{m3}	V _R =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_{max}-C_{min}) / C_{min}×100 Between D1 and D2.

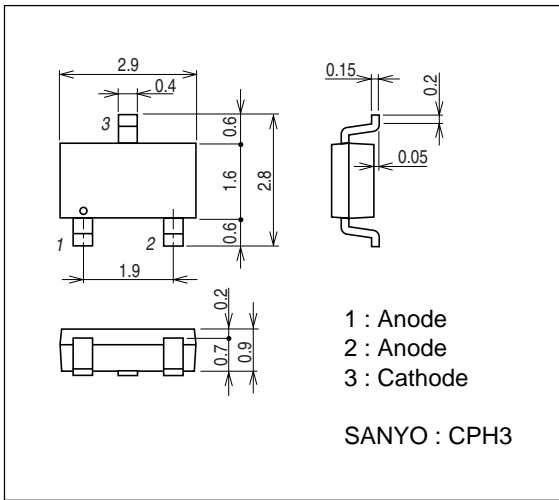
Marking : V4

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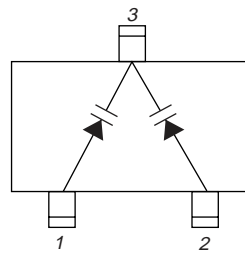
Package Dimensions

unit : mm

1291A

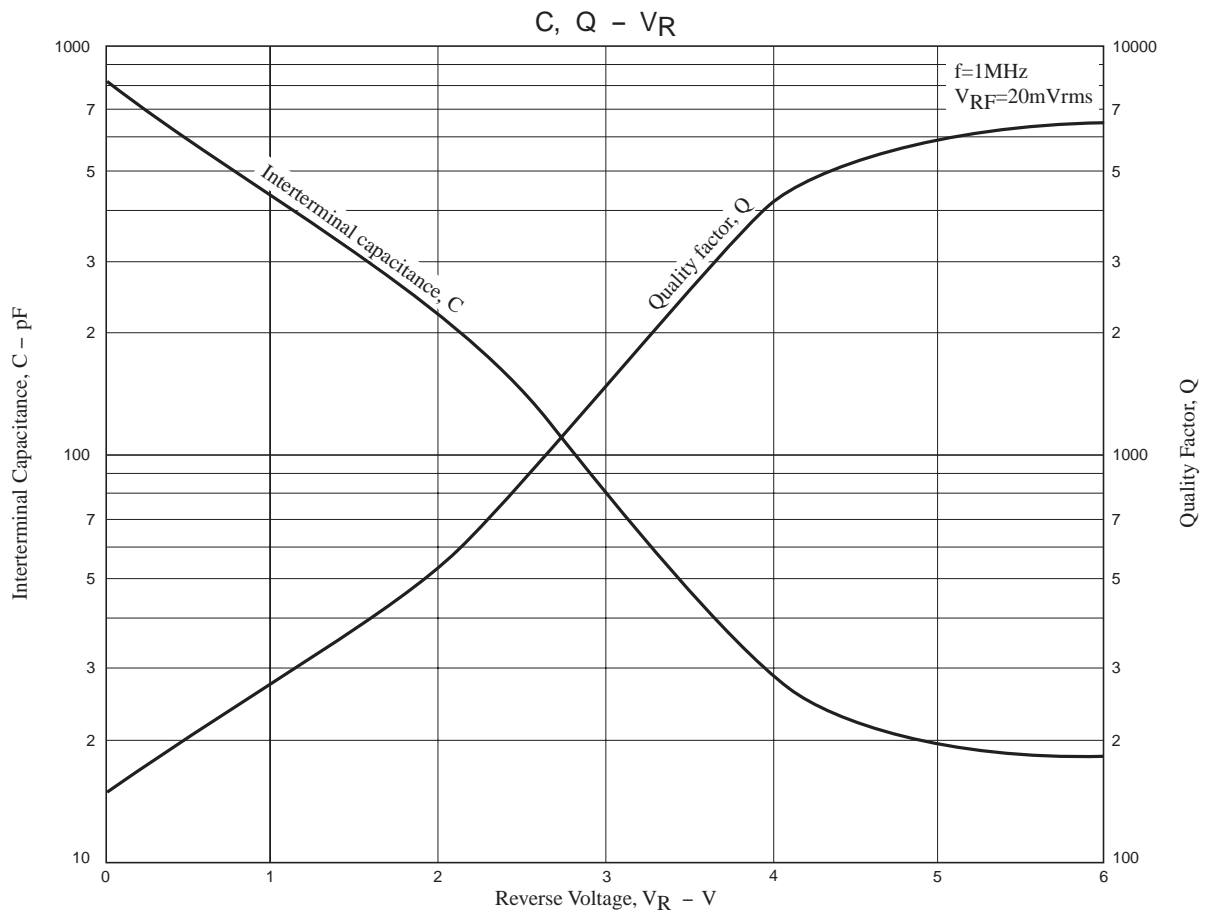


Electrical Connection



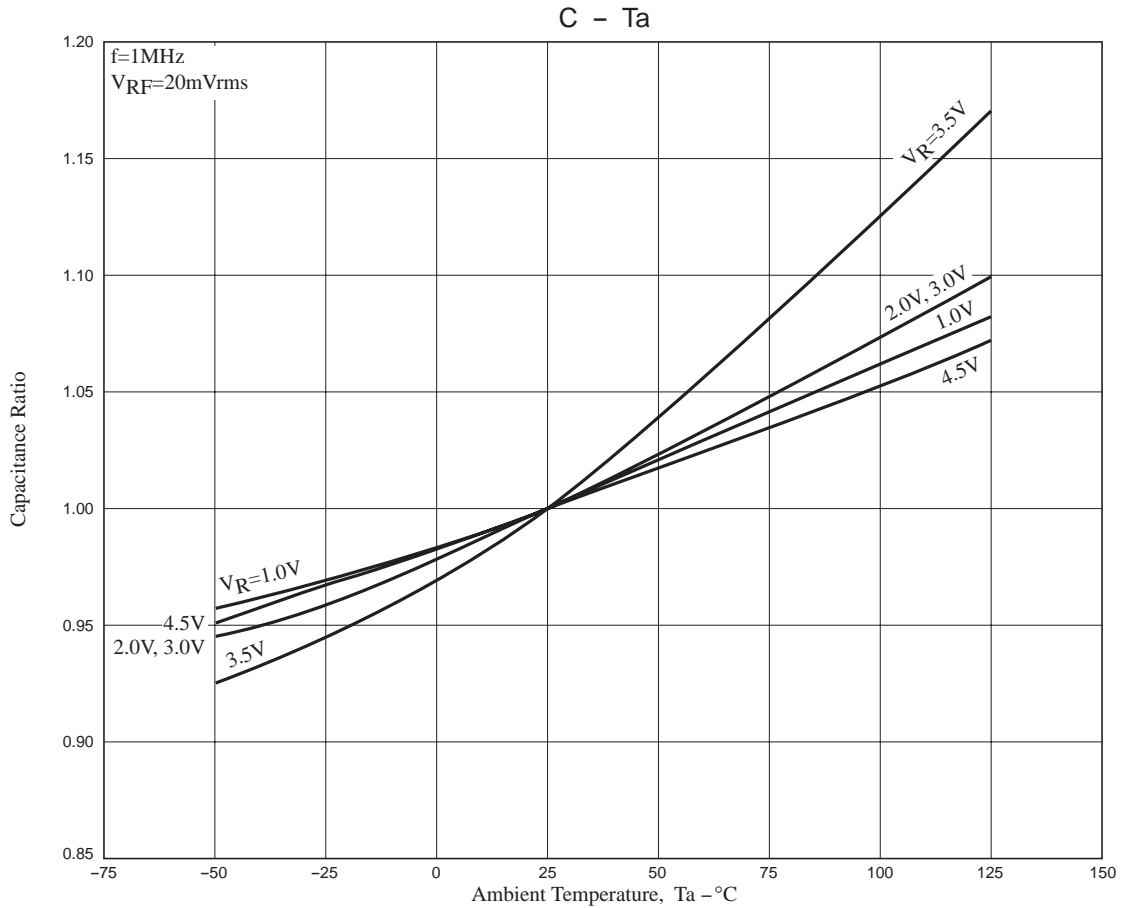
1 : Anode
2 : Anode
3 : Cathode

Top view



IT06915

SVC381



IT06916

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