



SANYO Semiconductors

DATA SHEET

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	$V_{(BR)R}$	$I_R=10\mu A$	16			V
Reverse Current	I_R	$V_R=9.0V$			100	nA
Interterminal Capacitance *1	C1.0V	$V_R=1.0V, f=1MHz$ *2	410		445	pF
	C3.0V	$V_R=3.0V, f=1MHz$	60		110	pF
	C4.5V	$V_R=4.5V, f=1MHz$	21		26	pF
Quality Factor	Q	$V_R=1.0V, f=1MHz$	200			
Capacitance Ratio	C_R	C1.0V / C4.5V	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 : $(C_{max}-C_{min}) / C_{min} \times 100$ Between D1 and D2.

Marking : V4

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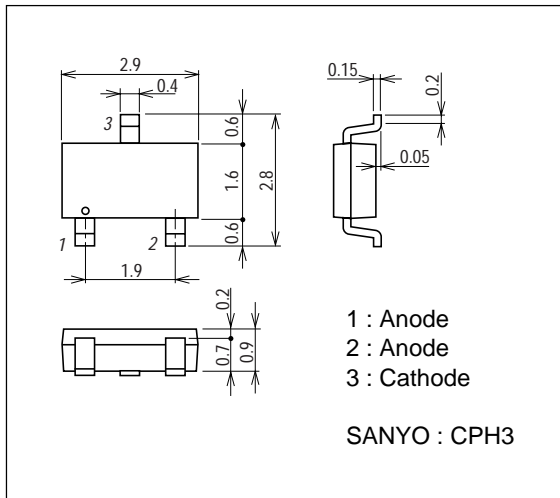
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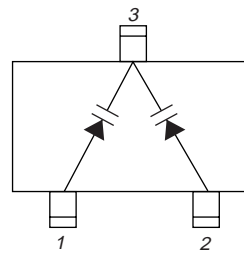
Package Dimensions

unit : mm

1291A

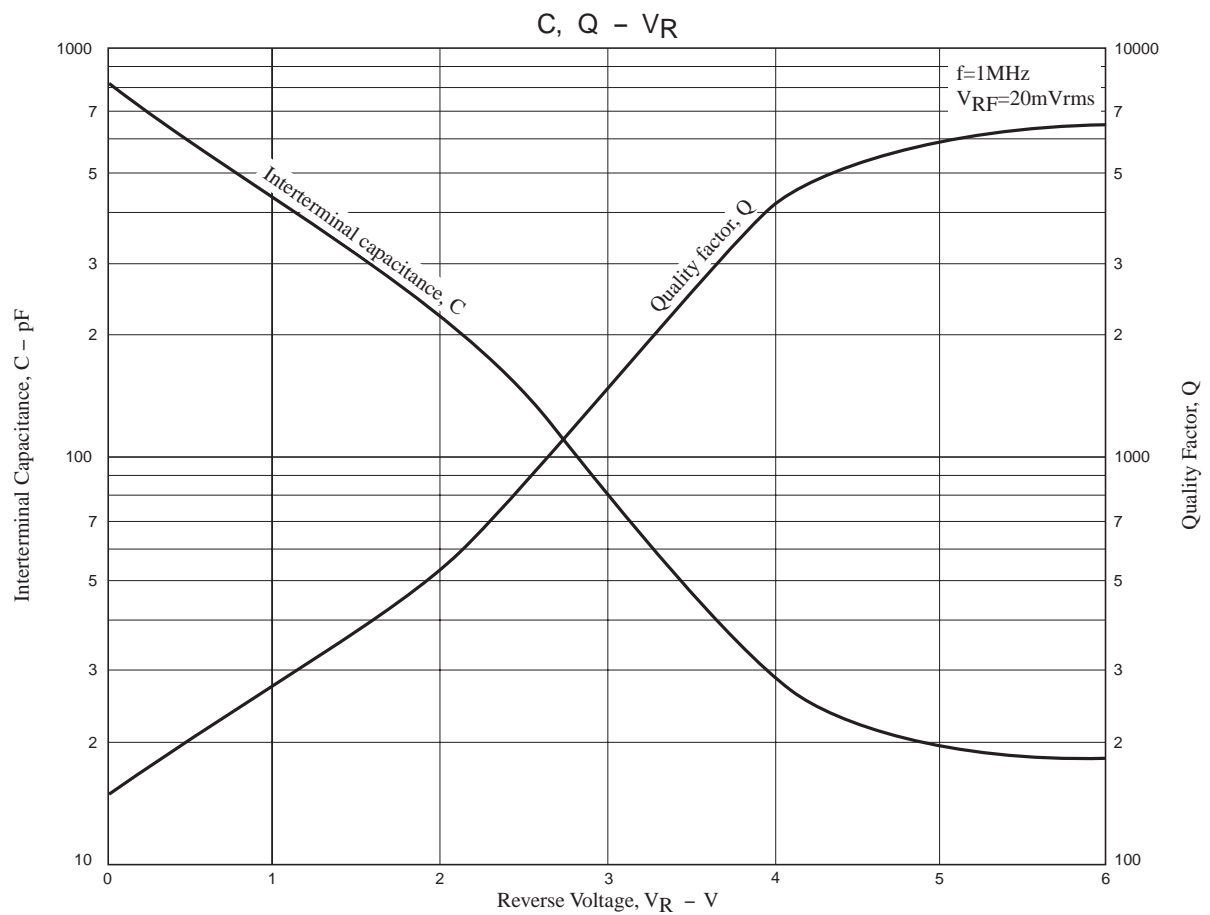


Electrical Connection

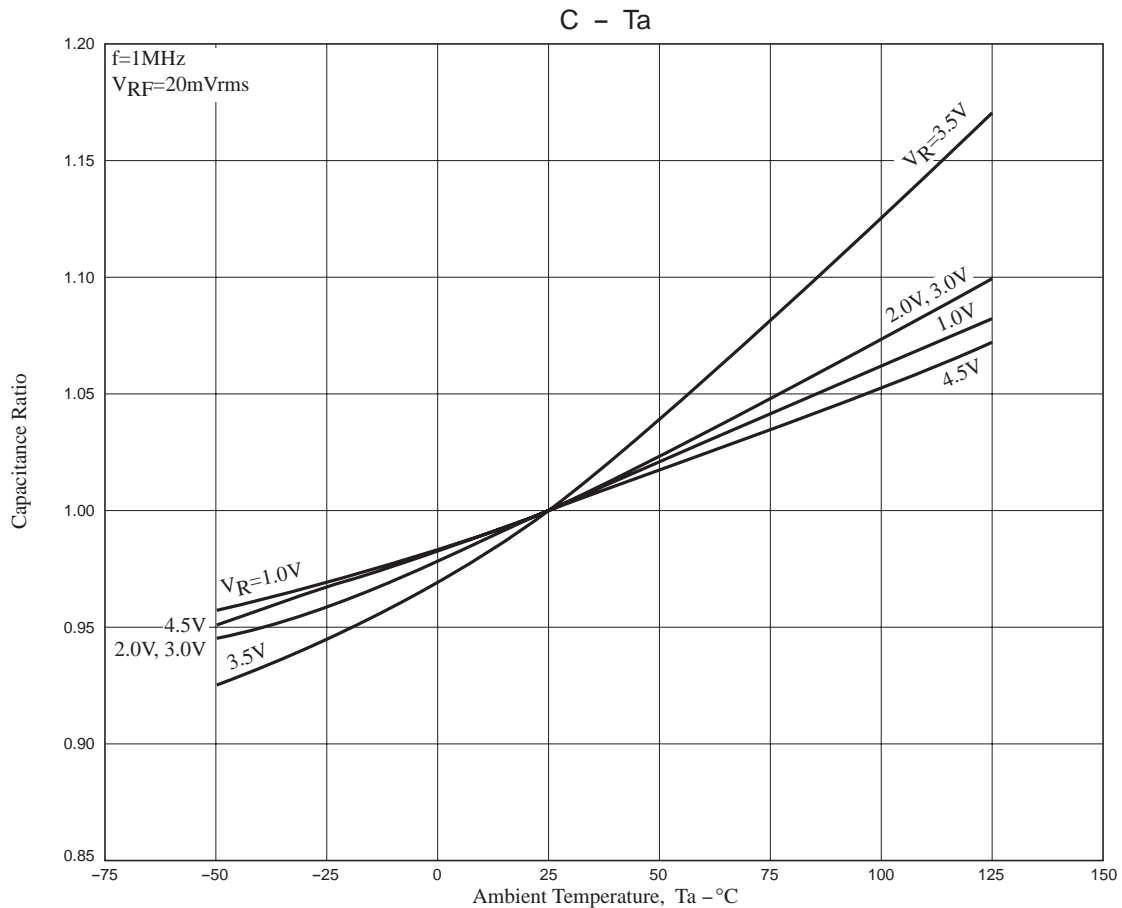


1 : Anode
2 : Anode
3 : Cathode

Top view



IT06915



IT06916

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