

# SVC389 — AM Low Voltage Electronic Tuning Applications

Hyper-Abrupt Junction Type Silicon Composite Varactor

## Features

- Twin type varactor diode for AM electronic tuning use.
- Miniaturization and high-integration of tuner sets can be easily achieved due to the small package.
- High capacitance ratio and high quality factor.
- Provided in a tape reel packaging.
- Surface mount type.

## 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>		150	°C
Storage Temperature	T <sub>stg</sub>		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	V(BR)R	I <sub>R</sub> =10μA	16			V
Reverse Current (One diode)	I <sub>R</sub>	V <sub>R</sub> =9V			100	nA
Interterminal Capacitance (Capacitance value of one diode)	C <sub>1V</sub>	V <sub>R</sub> =1V, f=1MHz *1	470		525	pF
	C <sub>6V</sub>	V <sub>R</sub> =6V, f=1MHz		50		pF
	C <sub>8V</sub>	V <sub>R</sub> =8V, f=1MHz	18		24	pF
Quality Factor	Q	V <sub>R</sub> =1V, f=1MHz	200			
Capacitance Ratio	CR	C <sub>1V</sub> / C <sub>8V</sub> , f=1MHz	19.5			
Matching Tolerance *2	ΔC <sub>m</sub>	(C <sub>max</sub> -C <sub>min</sub> ) / C <sub>min</sub> X100				
		V <sub>R</sub> =1V, f=1MHz			1.5	%
		V <sub>R</sub> =6V, f=1MHz			2.0	%
		V <sub>R</sub> =8V, f=1MHz			2.0	%

Marking : V7

\*1 : 1MHz signal : 20mVrms

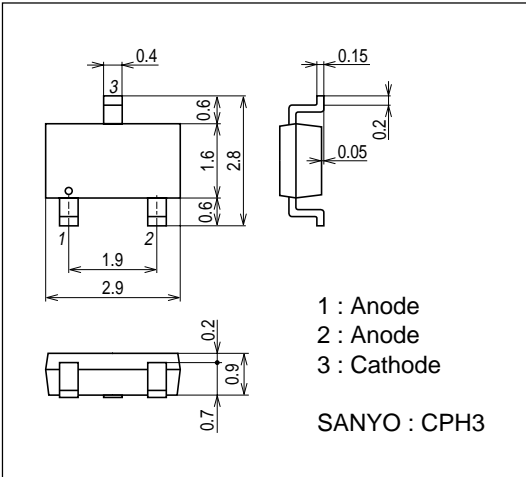
\*2 : Matching tolerance between D1 and D2

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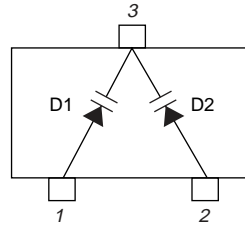
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## Package Dimensions

unit : mm  
7015-002

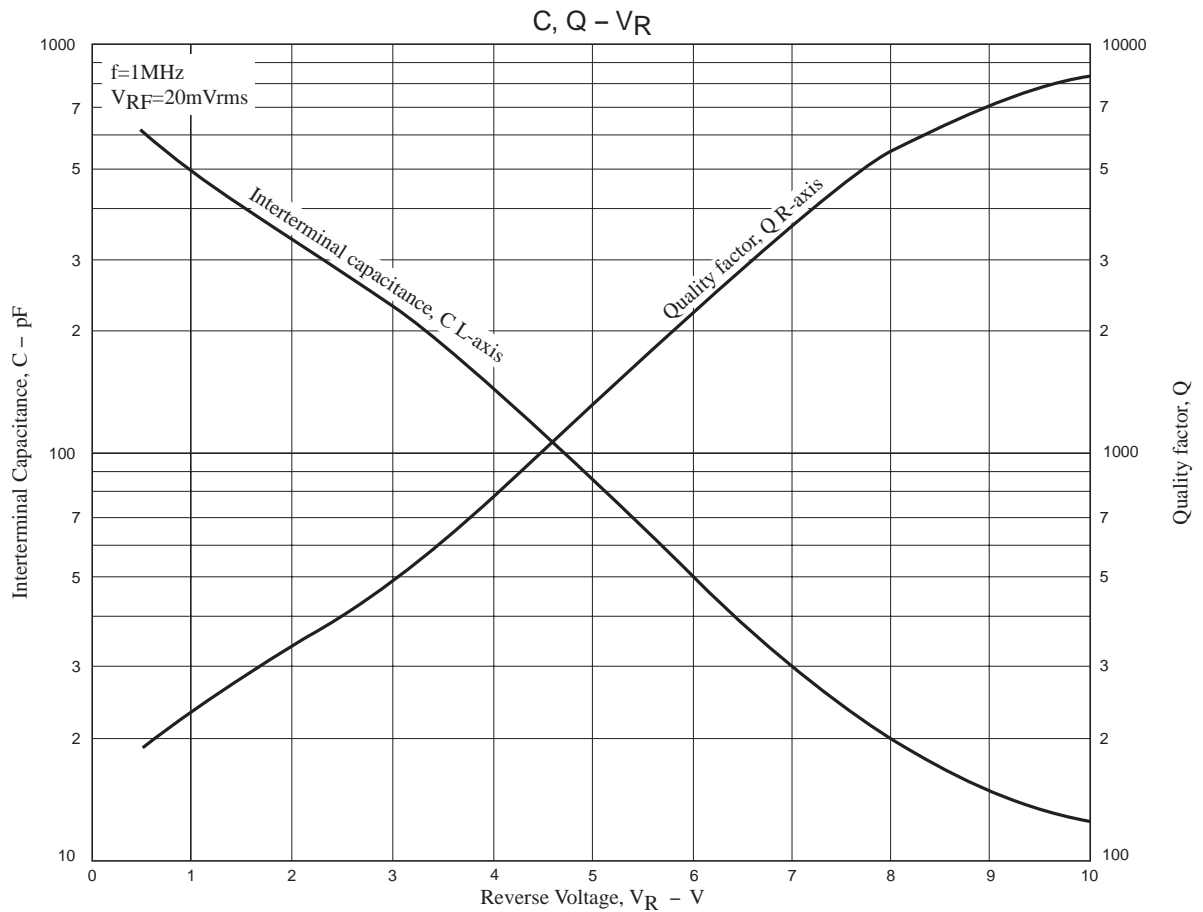


## Electrical Connection



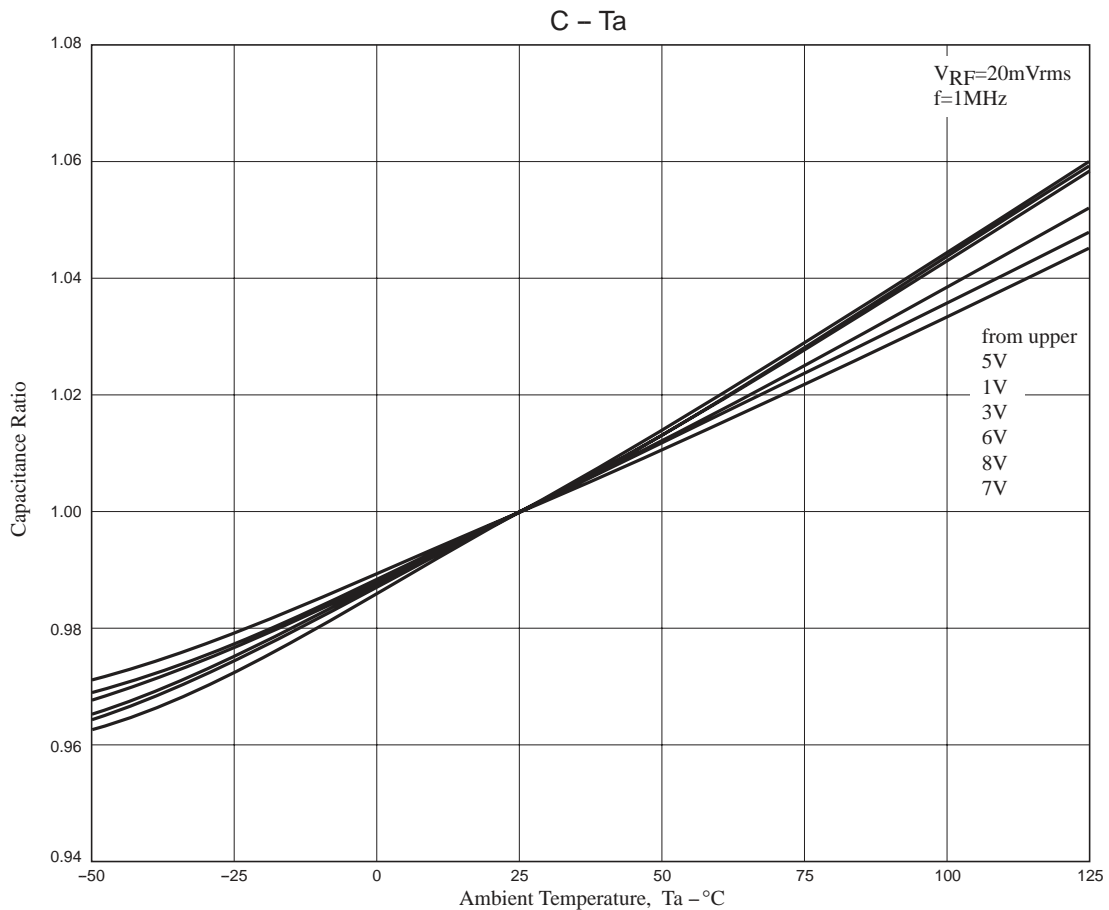
1 : Anode  
2 : Anode  
3 : Cathode

Top view



IT10402

## SVC389



IT08372

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