

Ordering number :EN5135A



# SVC371

## Diffused Junction Type Silicon Diode Composite Varactor Diode for AM Receiver Low-Voltage Electronic Tuning Applications

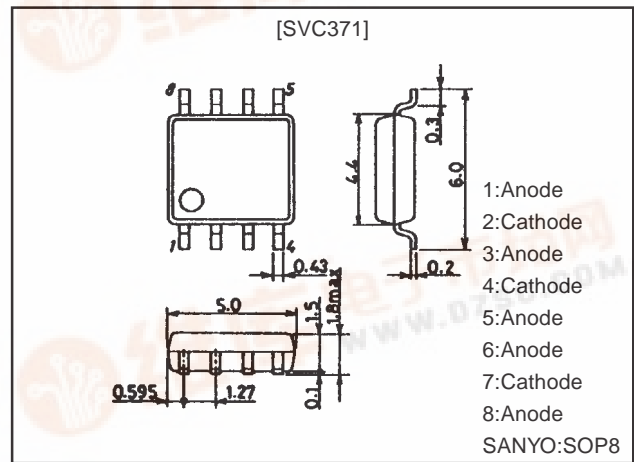
### Features

- Excellent large-input characteristics because of dual-varactor composite type.
- The number of manufacturing processes can be reduced and automatic mounting is possible because of composite type.
- High capacitance ratio and high quality factor.
- Facilitates tuning circuit configuration because the cathodes of three dual-type elements are separated from each other, resulting in almost no interelement coupling.
- Possible to offer the SVC371 devices in a tape reel packaging.
- Surface mount type.

### Package Dimensions

unit:mm

1268



### Specifications

#### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	$V_R$		16	V
Junction Temperature	$T_j$		125	
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 (One diode)	$I_R$	$V_R=20V$			100	nA
Interterminal Capacitance (Average)	$C_{1V}$	$V_R=1V, f=1MHz^*1$	460*		540*	pF
	$C_{6V}$	$V_R=6V, f=1MHz$		50		pF
	$C_{8V}$	$V_R=8V, f=1MHz$	19		26	pF
Quality Factor	Q	$V_R=1V, f=1MHz$	200			
Capacitance Ratio	CR	$C_{1V}/C_{8V}, f=1MHz$	18.5			
Matching Tolerance*2	$\Delta C_m$	$ CRFN-COSC-0.25pF  / COSC, V_R=1V, f=1MHz$			2.5	%
		$V_R=6V, f=1MHz$			3.0	%
		$V_R=8V, f=1MHz$			3.0	%

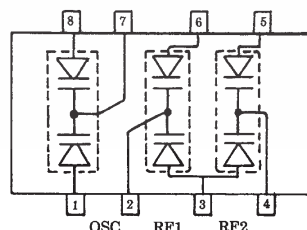
Note)\*1:1MHz signal:20mVrms.

Note)\*2:Calculate using the average of tow diodes contained in each element of OSC, RF1, RF2.

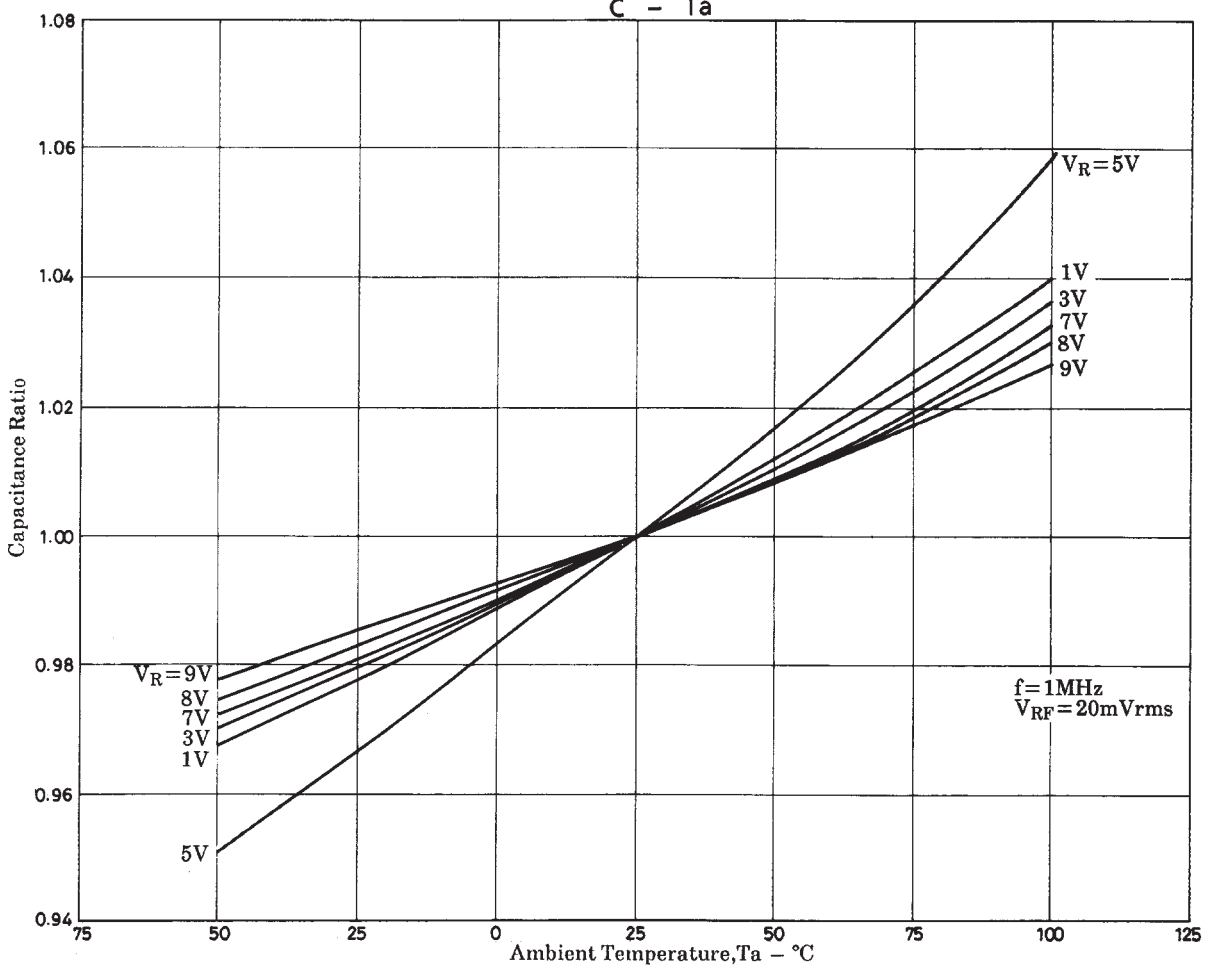
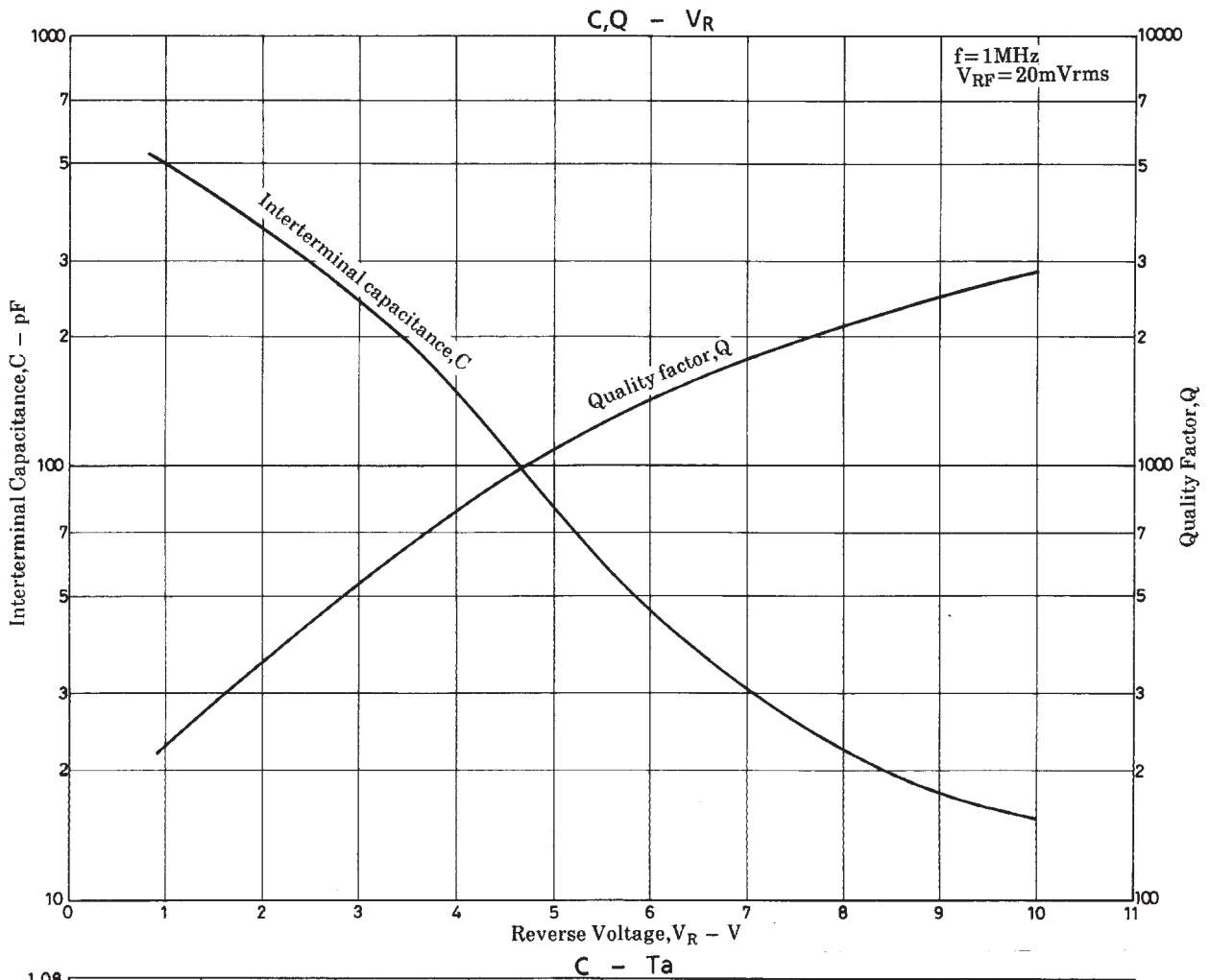
Note)\*:The SVC371 is classified by  $C_{1V}$  as follows:

Rank	$C_{1V}(pF)$
R	460.0 to 491.0
S	482.0 to 515.0
T	505.0 to 540.0

### Electrical Connection



# SVC371



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