



SVC371

Diffused Junction Type Silicon Diode

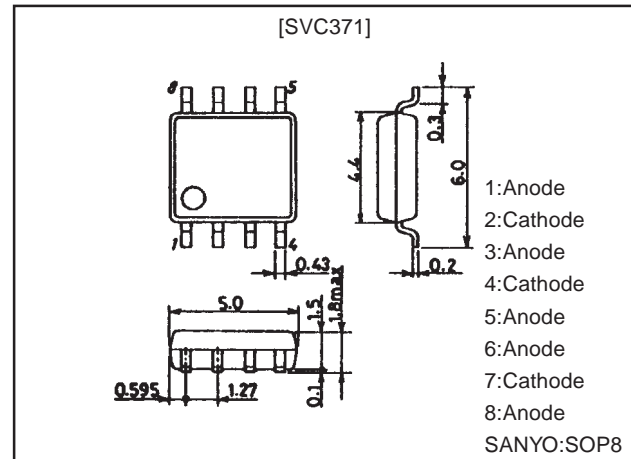
Composite Varactor Diode for AM Receiver Low-Voltage Electronic Tuning Applications

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	ΔC_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	%

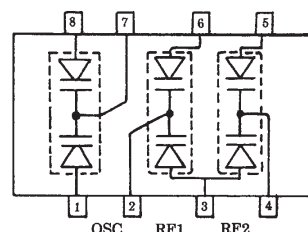
Note)*1:1MHz signal:20mVrms.

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

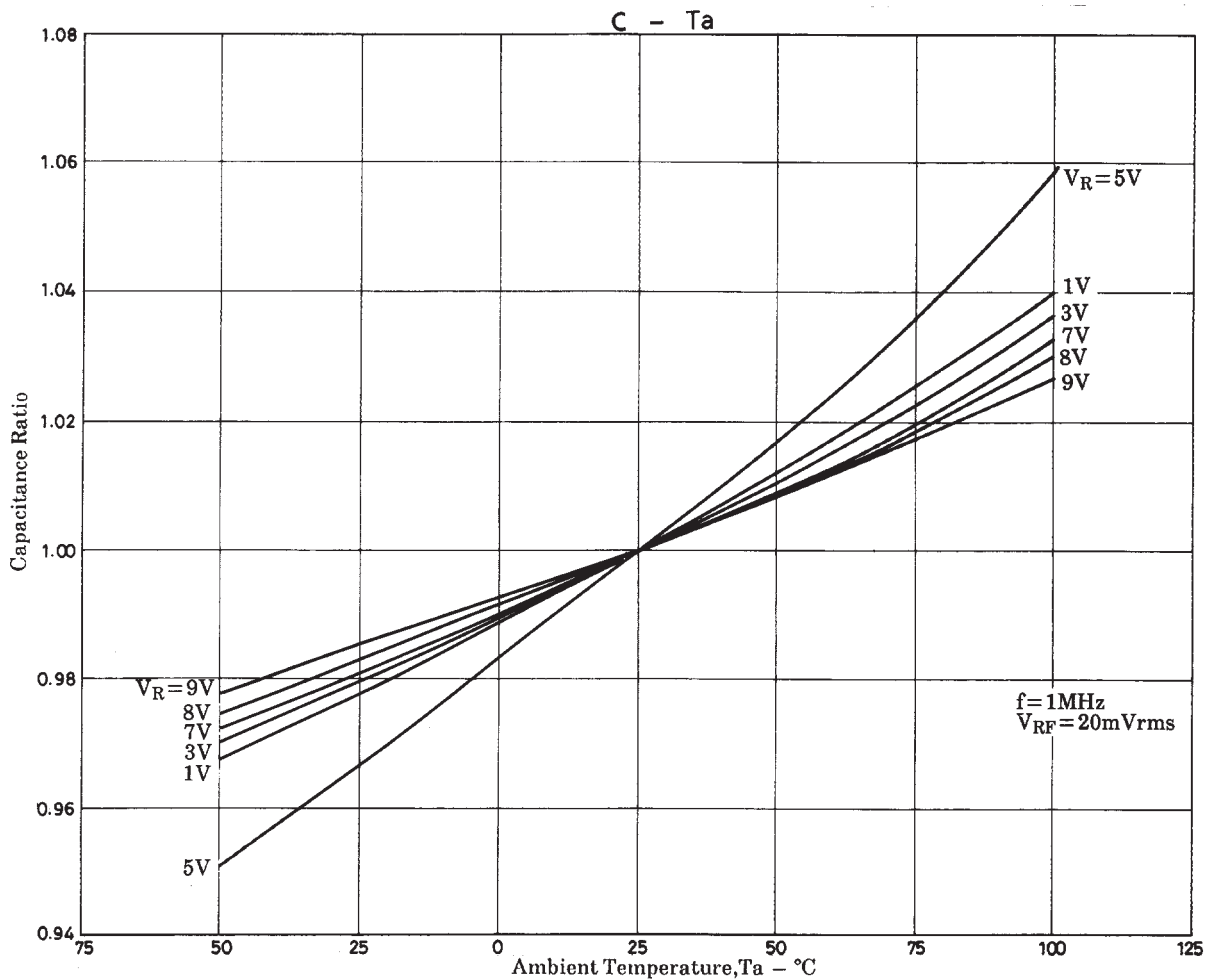
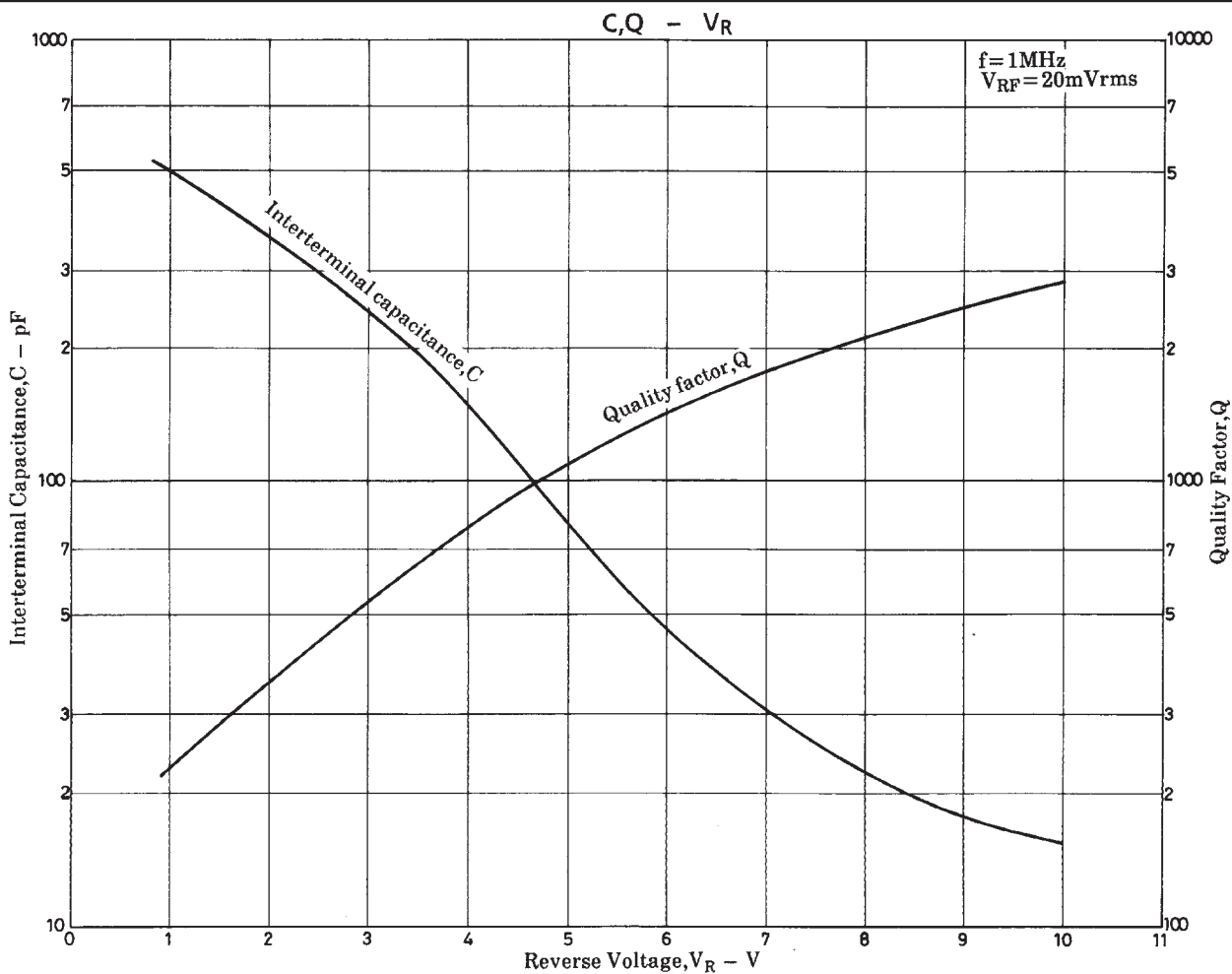
Note)*:The SVC371 is classified by C_{1V} as follows:

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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