

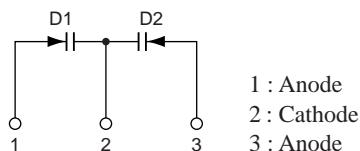
**SVC344**

Varactor Diode for AM Low-Voltage Electronic Tuning

Features

- Twin type varactor diode for low-voltage AM electronic tuning applications.
- Low operating voltage ($\leq 4.5\text{V}$).
- High Q.

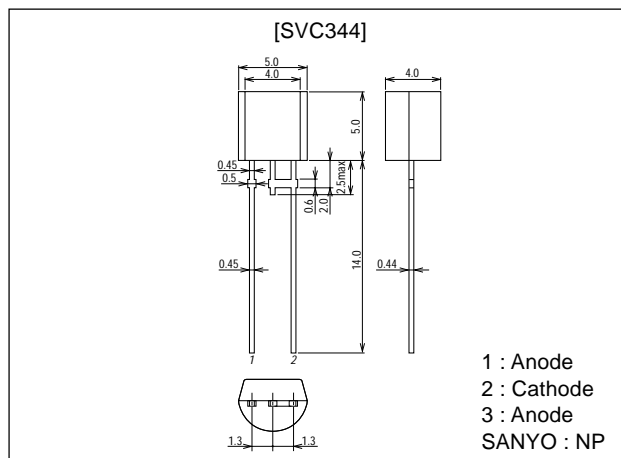
Electrical Connection



Package Dimensions

unit:mm

1271



Specifications

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		30	V
Junction Temperature	T_j		125	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +125	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	$V_{(BR)R}$	$I_R=10\mu\text{A}$	30			V
Reverse Current	I_R	$V_R=20\text{V}$			100	nA
Interterminal Capacitance*1	$C_{1.0\text{V}}$	$V_R=1.0\text{V}, f=1\text{MHz}^*2$	410.0	430.0	445.0	pF
	$C_{3.0\text{V}}$	$V_R=3.0\text{V}, f=1\text{MHz}$	70.0	95.0	120.0	pF
	$C_{4.5\text{V}}$	$V_R=4.5\text{V}, f=1\text{MHz}$	21.0	23.5	26.0	pF
Quality Factor	Q	$V_R=1.0\text{V}, f=1\text{MHz}$	200			
Capacitance Ratio	CR	$C_{1.0\text{V}}/C_{4.5\text{V}}$	15.0			
Matching Tolerance*3	ΔC_{m1}	$V_R=1.0\text{V}, f=1\text{MHz}$			2.0	%
	ΔC_{m2}	$V_R=3.0\text{V}, f=1\text{MHz}$			3.0	%
	ΔC_{m3}	$V_R=4.5\text{V}, f=1\text{MHz}$			3.0	%

Note)*1: The value of interterminal capacitance represent the average of measurements for tow elements.

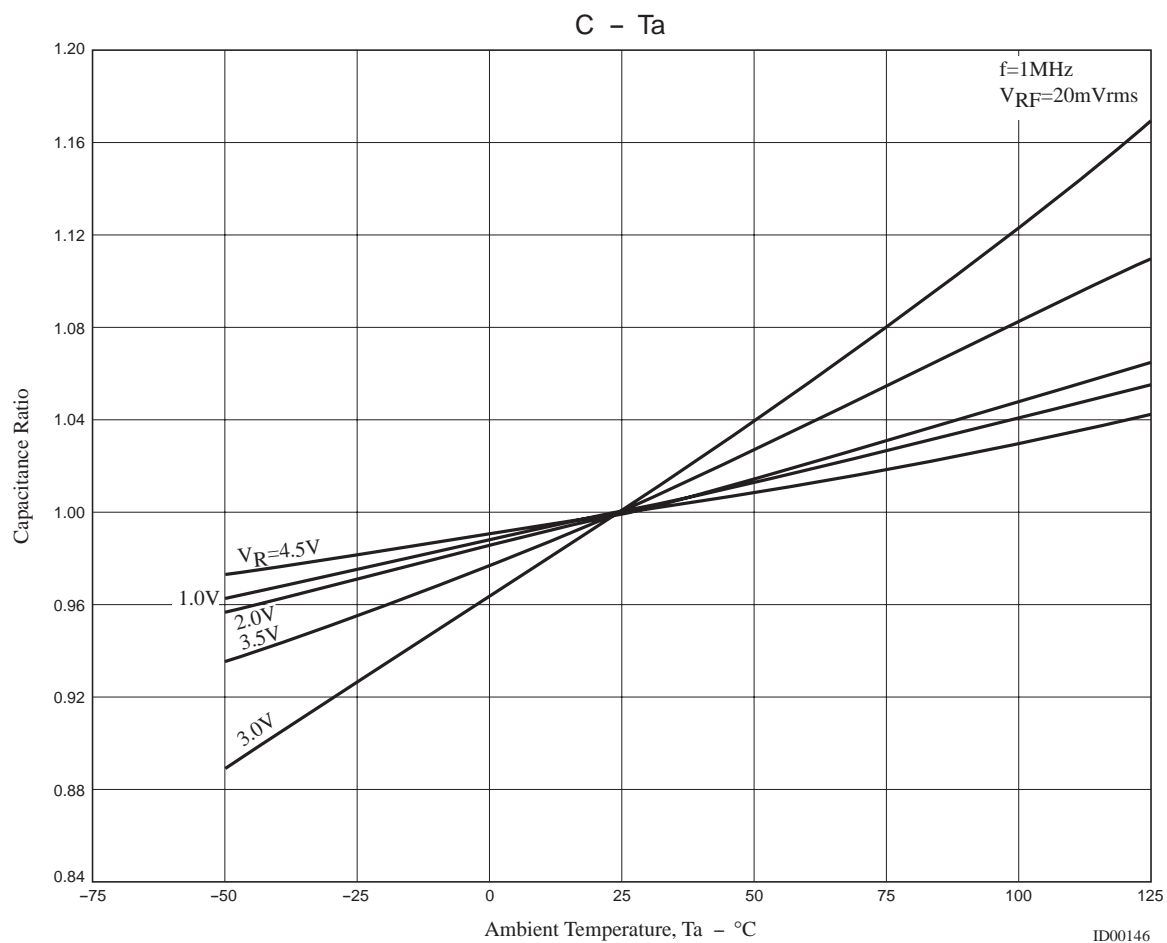
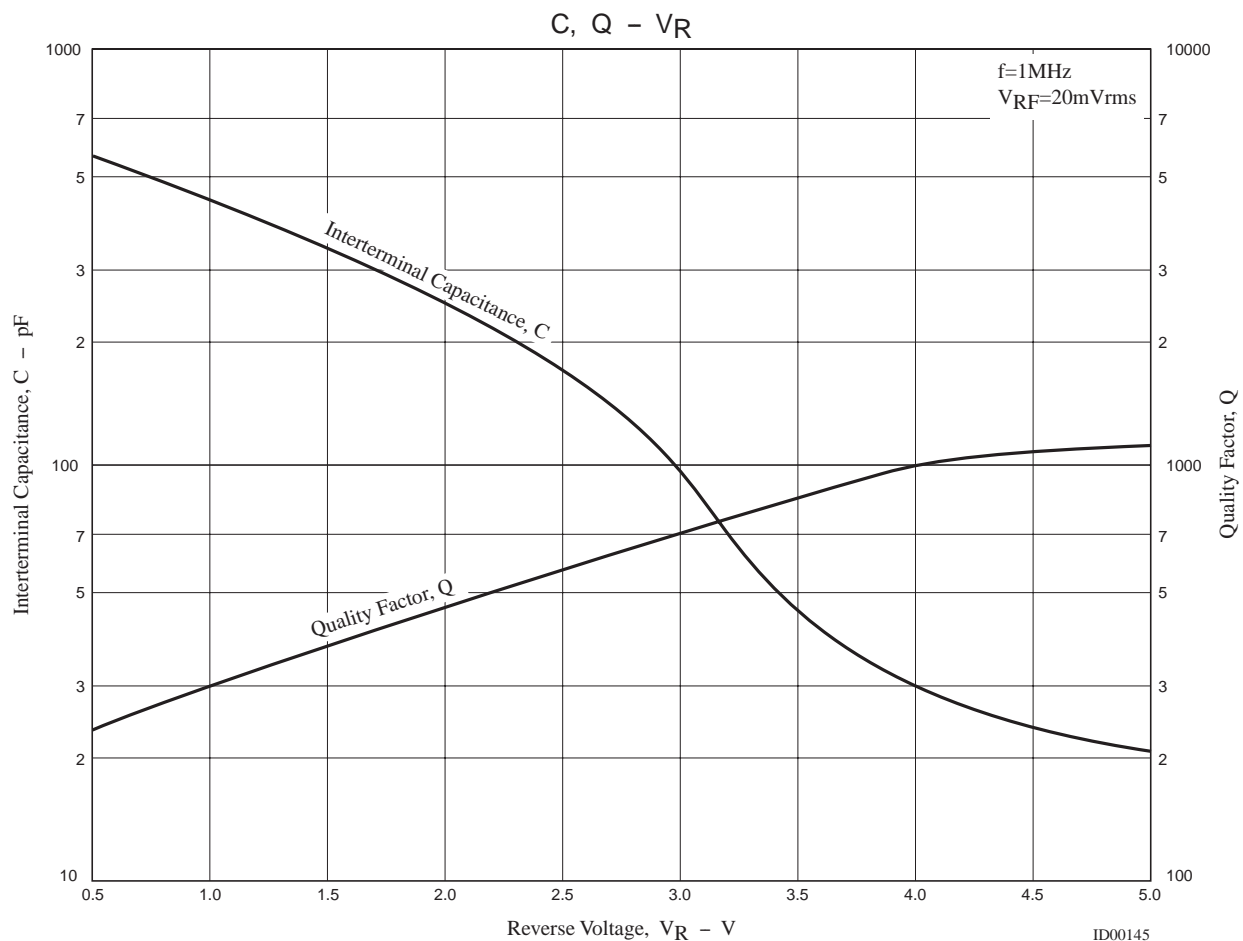
Note)*2: 1MHz signal: 20mVrms

Note)*3: $\Delta C_m = (C_{\max} - C_{\min}) / C_{\min} \times 100$ Between D1 and D2

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SVC344



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