



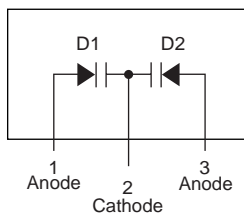
SVC348

AM Low Voltage Electronic Tuning Applications

Features

- Twin type varactor diode for AM electronic tuning use.
- High capacitance ratio and high quality factor.
- Possible to offer the SVC348 devices in a tape reel packaging.

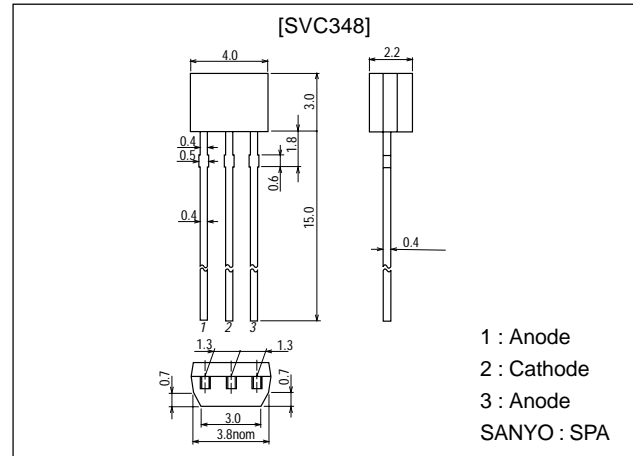
Electrical Connection



Package Dimensions

unit:mm

1292



Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		16	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	$V_{(BR)R}$	$I_R=10\mu\text{A}$	16			V
Reverse Current (One diode)	I_R	$V_R=9\text{V}$			100	nA
Interterminal Capacitance (Capacitance value of on diode)	C_{1V}	$V_R=1\text{V}, f=1\text{MHz}^*1$	470*		525*	pF
	C_{6V}	$V_R=6\text{V}, f=1\text{MHz}$		55		pF
	C_{8V}	$V_R=8\text{V}, f=1\text{MHz}$	20		26	pF
Quality Factor	Q	$V_R=1\text{V}, f=1\text{MHz}$	200			
Capacitance Ratio	CR	$C_{1V}/C_{8V}, f=1\text{MHz}$	18.5			
Matching Tolerance *2	ΔC_m	$(C_{max}-C_{min})/C_{min} \times 100$				
		$V_R=1\text{V}, f=1\text{MHz}$			1.5	%
		$V_R=6\text{V}, f=1\text{MHz}$			2.0	%
		$V_R=8\text{V}, f=1\text{MHz}$			2.0	%

*1 : 1MHz signal : 20mVrms

*2 : Between D1 and D2 Matching Tolerance

* : SVC348 are classified by C_{1V} as right :

Rank	C_{1V} (pF)
S	470 to 505
T	485 to 525

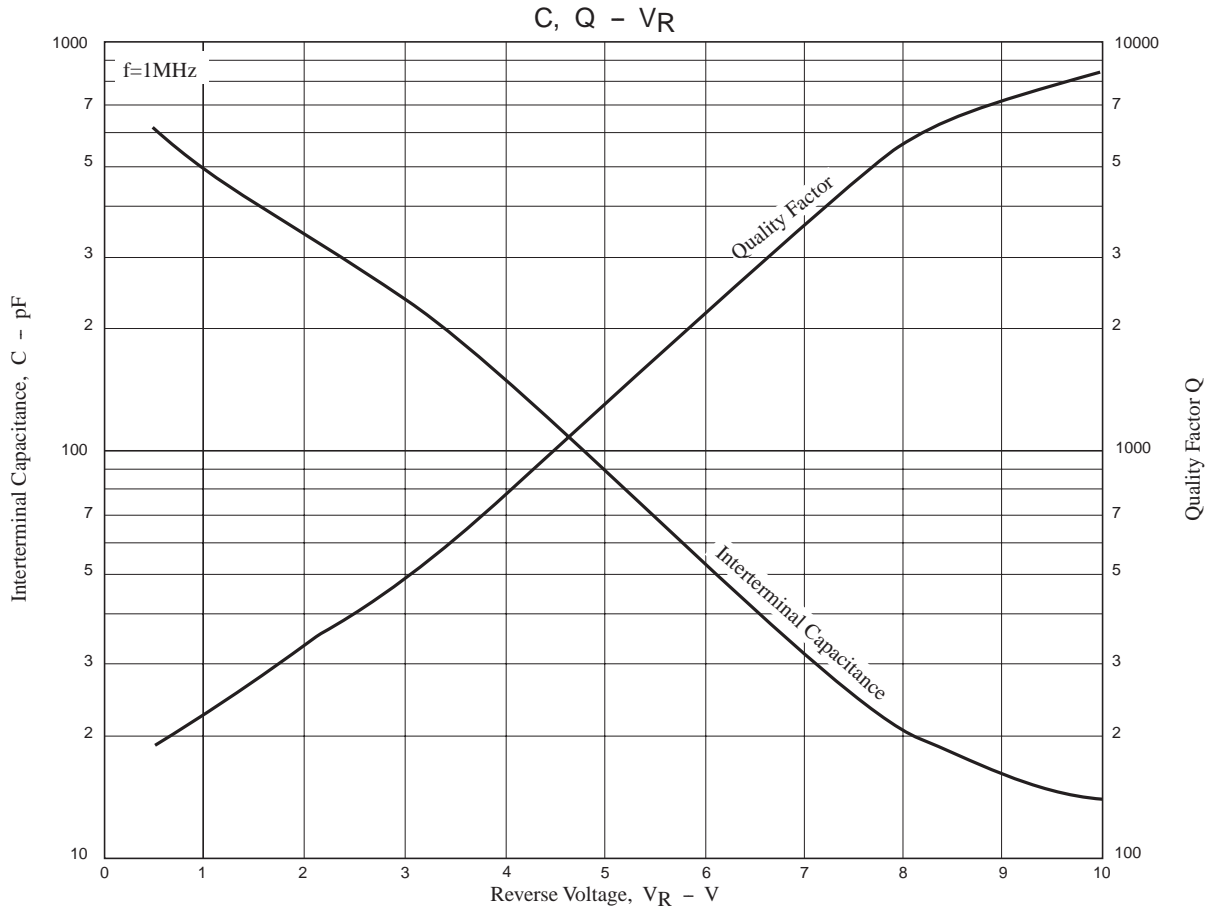
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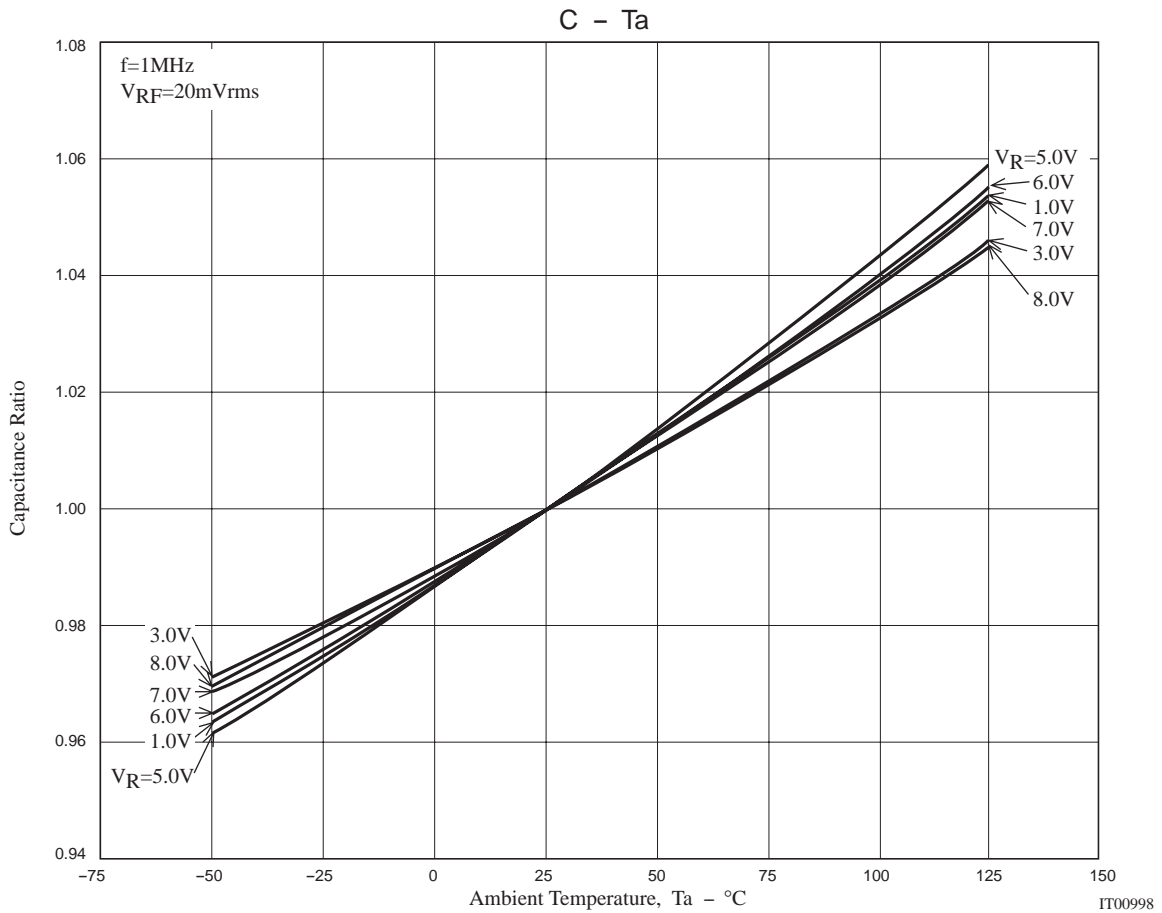
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SVC348



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