



# SVC346

Silicon Diffused Junction Type  
Varactor Diode

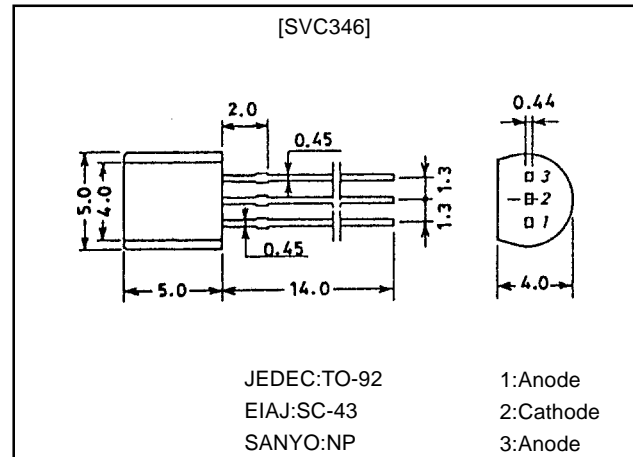
for AM Low-Voltage Electronic Tuning

## Features

- Twin type varactor diode for low-voltage AM electronic tuning applications.
- Low operating voltage(≤6.5V).
- High Q.

## Package Dimensions

unit:mm  
1271



## Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V <sub>R</sub>		33	V
Junction Temperature	T <sub>J</sub>		125	°C
Storage Temperature	T <sub>stg</sub>		-55 to +125	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	V <sub>(BR)R</sub>	I <sub>R</sub> =10μA	33			V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =20V			100	nA
Interterminal Capacitance*1	C <sub>1.0V</sub>	V <sub>R</sub> =1.0V, f=1MHz*2	460.0*		540.0*	pF
	C <sub>4.5V</sub>	V <sub>R</sub> =4.5V, f=1MHz		64.0		pF
	C <sub>6.5V</sub>	V <sub>R</sub> =6.5V, f=1MHz	21.0		27.0	pF
Quality Factor	Q	V <sub>R</sub> =1.0V, f=1MHz	200			
Capacitance Ratio	CR	C <sub>1.0V</sub> /C <sub>6.5V</sub>	17.5		24.5	
Matching Tolerance	ΔC <sub>m</sub>	(C <sub>max</sub> -C <sub>min</sub> )/C <sub>min</sub> ×100 (Between D1 to D2) V <sub>R</sub> =1V to 6.5V			2.0	%

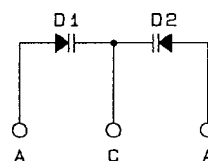
Note)\*1:The value of interterminal capacitance represent the average of measurements for tow elements.

Note)\*2:1MHz signal:20mVrms

Note)\*:The SVC346 are classified by C<sub>1.0V</sub> as follows:

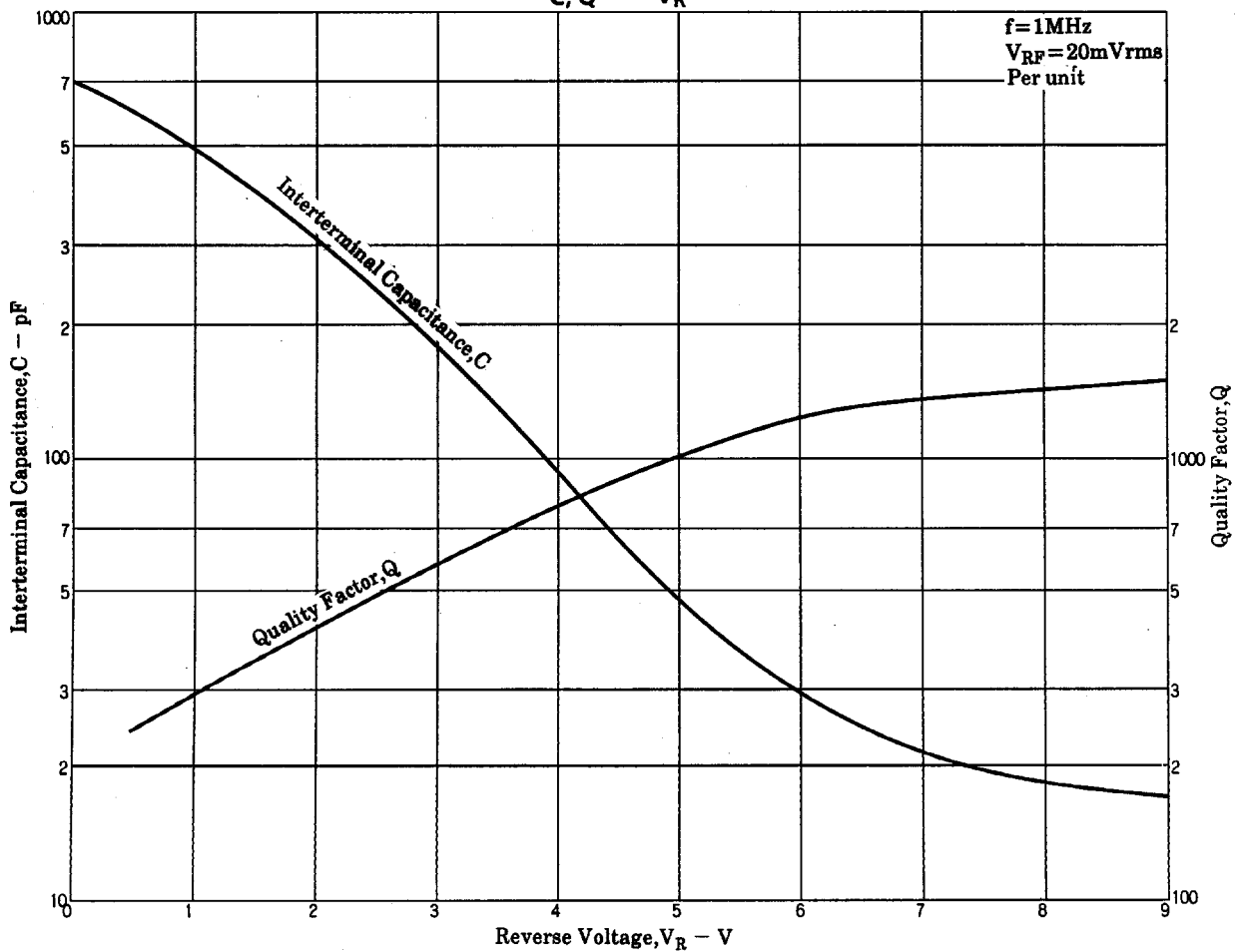
Rank	C <sub>1.0V</sub> (pF)
R	460.0 to 491.0
S	482.0 to 515.0
T	505.0 to 540.0

## Electrical Connection

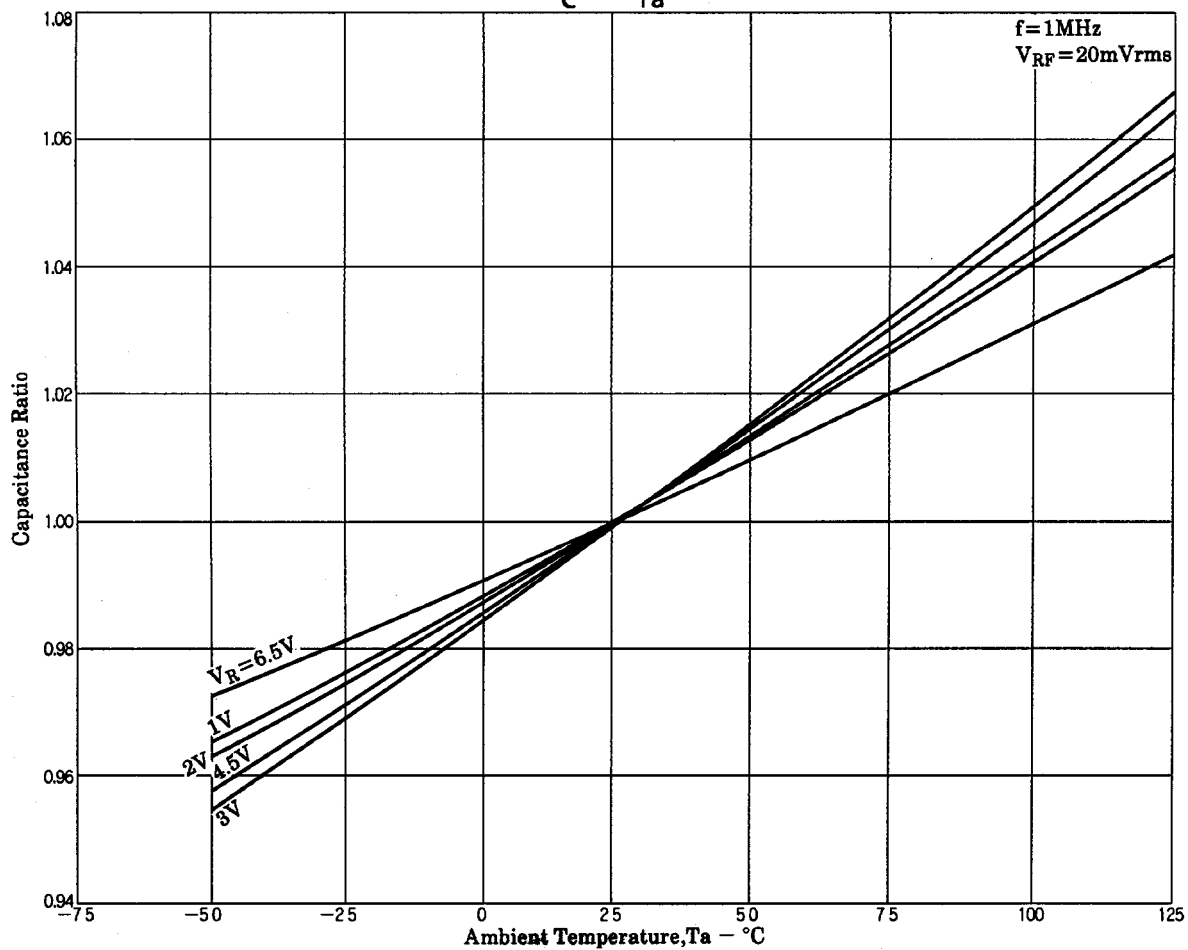


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C, Q -  $V_R$



C -  $T_a$



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