

# **SVC343**

Silicon Diffused Junction Type
Varactor Diode
for AM Low-Voltage Electronic Tuning

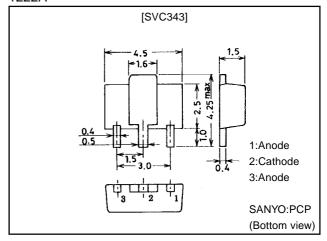
### **Features**

- Twin type varactor diode for low-voltage AM electronic tuning applications.
- · Low voltage (4.5V).
- · High Q
- · Packing on continuous tape is available.
- · Surface mount type.

## **Package Dimensions**

unit:mm

1222A



## **Specifications**

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

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	VR		30	V
Junction Temperature	Tj		125	°C
Storage Temperature	Tstg		-55 to +125	°C

### Electrical Characteristics at Ta = 25°C

Symbol	Conditions	Ratings			Unit
		min	typ	max	Onit
V <sub>(BR)R</sub>	I <sub>R</sub> =10μA	30			V
$I_{R}$	V <sub>R</sub> =20V			100	nA
C <sub>1.0V</sub>	V <sub>R</sub> =1.0V, f=1MHz*2	410.0	430.0	445.0	pF
C <sub>3.0V</sub>	V <sub>R</sub> =3.0V, f=1MHz	70.0	95.0	120.0	pF
C <sub>4.5V</sub>	V <sub>R</sub> =4.5V, f=1MHz	21.0	23.5	26.0	pF
Q	V <sub>R</sub> =1.0V, f=1MHz	200			
CR	C <sub>1.0V</sub> /C <sub>4.5V</sub>	15.0			
∆C <sub>m</sub> 1	V <sub>R</sub> =1.0V, f=1MHz			2.0	%
∆C <sub>m</sub> 2	V <sub>R</sub> =3.0V, f=1MHz			3.0	%
∆C <sub>m</sub> 3	V <sub>R</sub> =4.5V, f=1MHz			3.0	%
	V(BR)R I <sub>R</sub> C <sub>1.0V</sub> C <sub>3.0V</sub> C <sub>4.5V</sub> Q CR ΔC <sub>m</sub> 1 ΔC <sub>m</sub> 2	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Symbol         Conditions           V(BR)R         I <sub>R</sub> =10μA         30           I <sub>R</sub> V <sub>R</sub> =20V         410.0           C <sub>1.0V</sub> V <sub>R</sub> =1.0V, f=1MHz*2         410.0           C <sub>3.0V</sub> V <sub>R</sub> =3.0V, f=1MHz         70.0         95.0           C <sub>4.5V</sub> V <sub>R</sub> =4.5V, f=1MHz         21.0         23.5           Q         V <sub>R</sub> =1.0V, f=1MHz         200           CR         C <sub>1.0V</sub> /C <sub>4.5V</sub> 15.0           ΔC <sub>m</sub> 1         V <sub>R</sub> =3.0V, f=1MHz         40.0	Symbol         Conditions           V(BR)R         I <sub>R</sub> =10μA         30           I <sub>R</sub> V <sub>R</sub> =20V         100           C <sub>1.0V</sub> V <sub>R</sub> =1.0V, f=1MHz*2         410.0         430.0         445.0           C <sub>3.0V</sub> V <sub>R</sub> =3.0V, f=1MHz         70.0         95.0         120.0           C <sub>4.5V</sub> V <sub>R</sub> =4.5V, f=1MHz         21.0         23.5         26.0           Q         V <sub>R</sub> =1.0V, f=1MHz         200         20.0           C <sub>R</sub> C <sub>1.0V</sub> /C <sub>4.5V</sub> 15.0         15.0           ΔC <sub>m</sub> 1         V <sub>R</sub> =3.0V, f=1MHz         2.0         2.0           ΔC <sub>m</sub> 2         V <sub>R</sub> =3.0V, f=1MHz         3.0

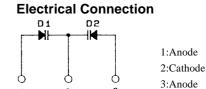
Note)\*1:The value of interterminal capacitance represent the average of measurements for tow elements.

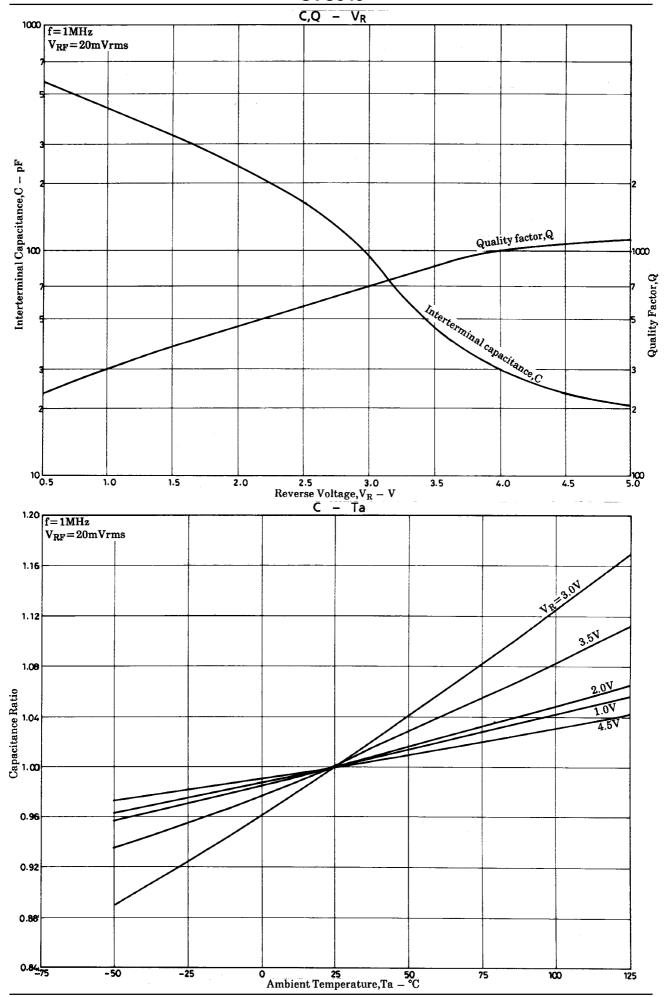
Note)\*2:1MHz signal:20mVrms

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

Note) The specifications shown above are for each individual diode.

· Marking:VC





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