

# **SVC344**

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

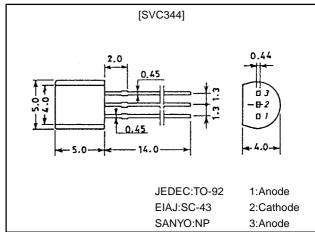
### **Features**

- Twin type varactor diode for low-voltage AM electronic tuning applications.
- · Low operating voltage ( $\leq 4.5$ V).
- · 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>		30	V
Junction Temperature	Tj		125	°C
Storage Temperature	Tstg		-55 to +125	°C

### Electrical Characteristics at Ta = 25°C

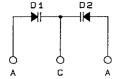
Symbol	Conditions	Ratings			Unit
		min	typ	max	Unit
V <sub>(BR)R</sub>	I <sub>R</sub> =10μA	30			V
I <sub>R</sub>	V <sub>R</sub> =20V			100	nA
C <sub>1.0V</sub>	V <sub>R</sub> =1.0V, f=1MHz*2	410.0	430.0	445.0	pF
C <sub>3.0V</sub>	V <sub>R</sub> =3.0V, f=1MHz	70.0	95.0	120.0	pF
C <sub>4.5V</sub>	V <sub>R</sub> =4.5V, f=1MHz	210.0	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	%
ΔC <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 IR C1.0V C3.0V C4.5V Q CR ΔCm1 ΔCm2	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Symbol         Conditions           V(BR)R         I <sub>R</sub> =10μA         30           I <sub>R</sub> V <sub>R</sub> =20V         410.0         430.0           C <sub>1.0V</sub> V <sub>R</sub> =1.0V, f=1MHz*2         410.0         430.0           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         210.0         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           win         typ         max           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         210.0         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           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 mesurements for tow elements.

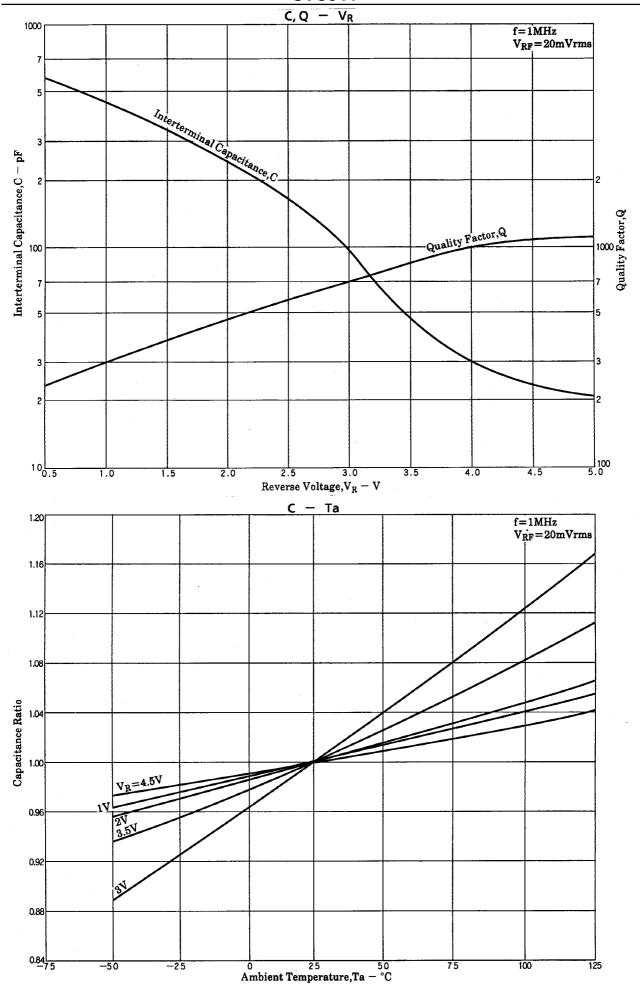
Note)\*2:1MHz signal:20mVrms

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

#### **Electrical Connection**



SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN



- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:
  - ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use:
  - ② Not impose any responsibilty for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

This catalog provides information as of March, 1998. Specifications and information herein are subject to change without notice.