Ordering number :EN2617B

SVC342

Diffused Junction Type Sillicon Diode

Varactor Diode for AM Receiver Electronic Tuning Use

Features

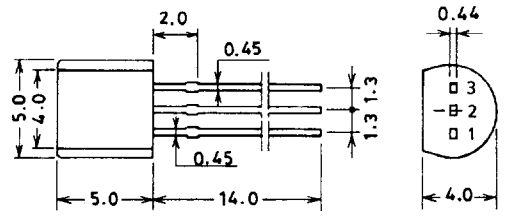
- Twin type varactor diode for low-voltage AM electronic tuning use.
- High capacitance ratio.
- Excellent linearity of C-V characteristic.
- High Q.

Package Dimensions

unit:mm

1074B

[SVC342]



JEDEC:TO-92
EIAJ:SC-43
SANYO:NP

1,3:Anode
2:Cathode

Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		16	V
Junction Temperature	Tj		100	˚C
Storage Temperature	Tstg		–55 to +100	˚C

Electrical Characteristics at Ta = 25˚C

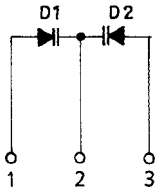
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	$V_{(BR)\ R}$	I_R=10μA	16			V
Reverse Current	I_R	V_R=9V			100	nA
Interterminal Capacitance*	C_{1V}	V_R=1V, f=1MHz	423.0		503.0	pF
	C_{6V}	V_R=6V, f=1MHz	46.0		61.0	pF
	C_{9V}	V_R=9V, f=1MHz	17.5		23.5	pF
Quality Factor	Q	V_R=1V, f=1MHz	200			
Capacitance Ratio	CR	C_{1V}/C_{9V}	19.5			
Matching Tolerance	ΔC_m	$(C_{max}–C_{min})/C_{min}$, (Between D1 to D2) V_R=1V to 9V			0.02	

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

Note)*:The SVC342 is classified by C_{1V} as follows:

Rank	C_{1V}(pF)
K	423.0 to 455.0
L	445.0 to 478.0
M	468.0 to 503.0

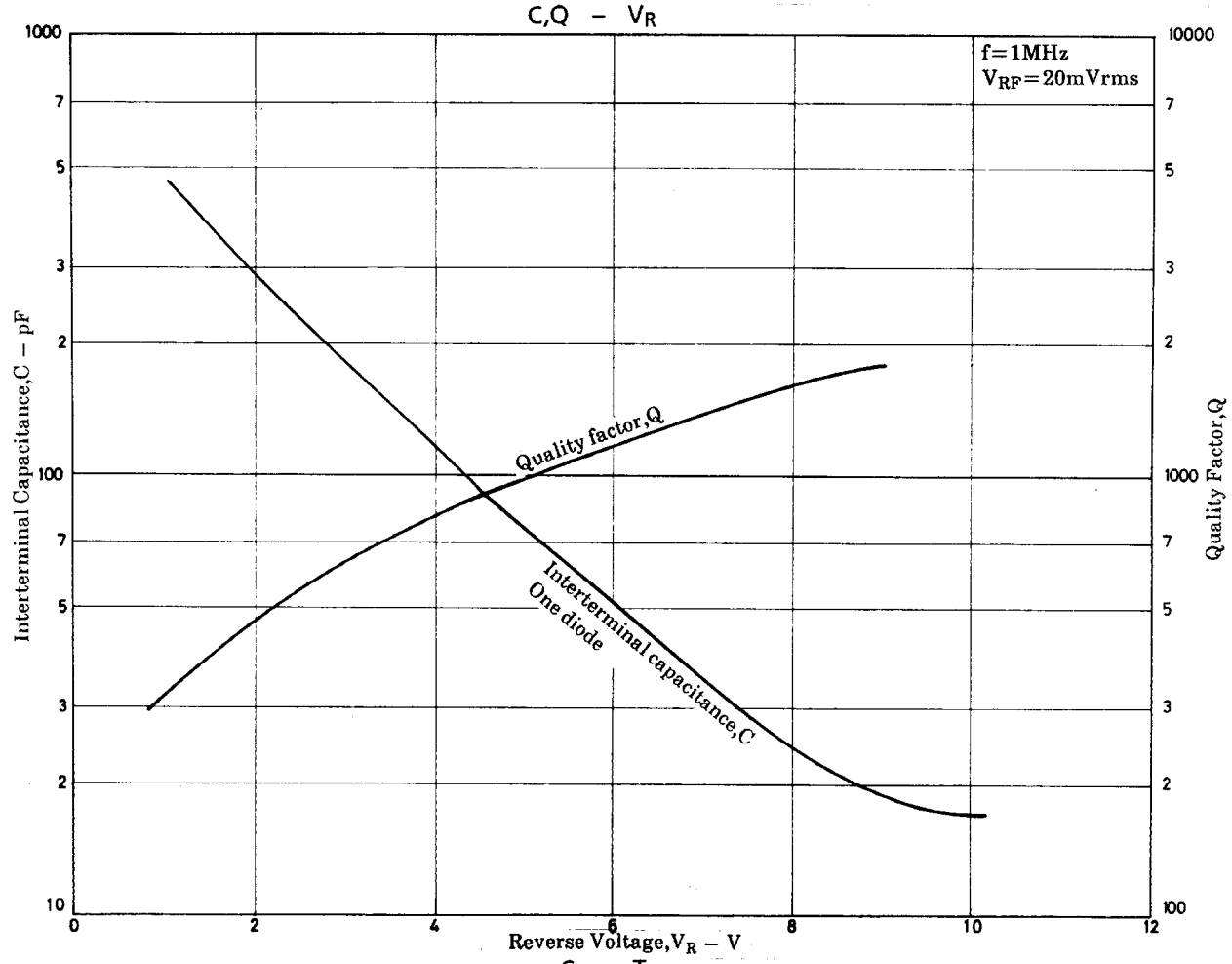
Electrical Connection



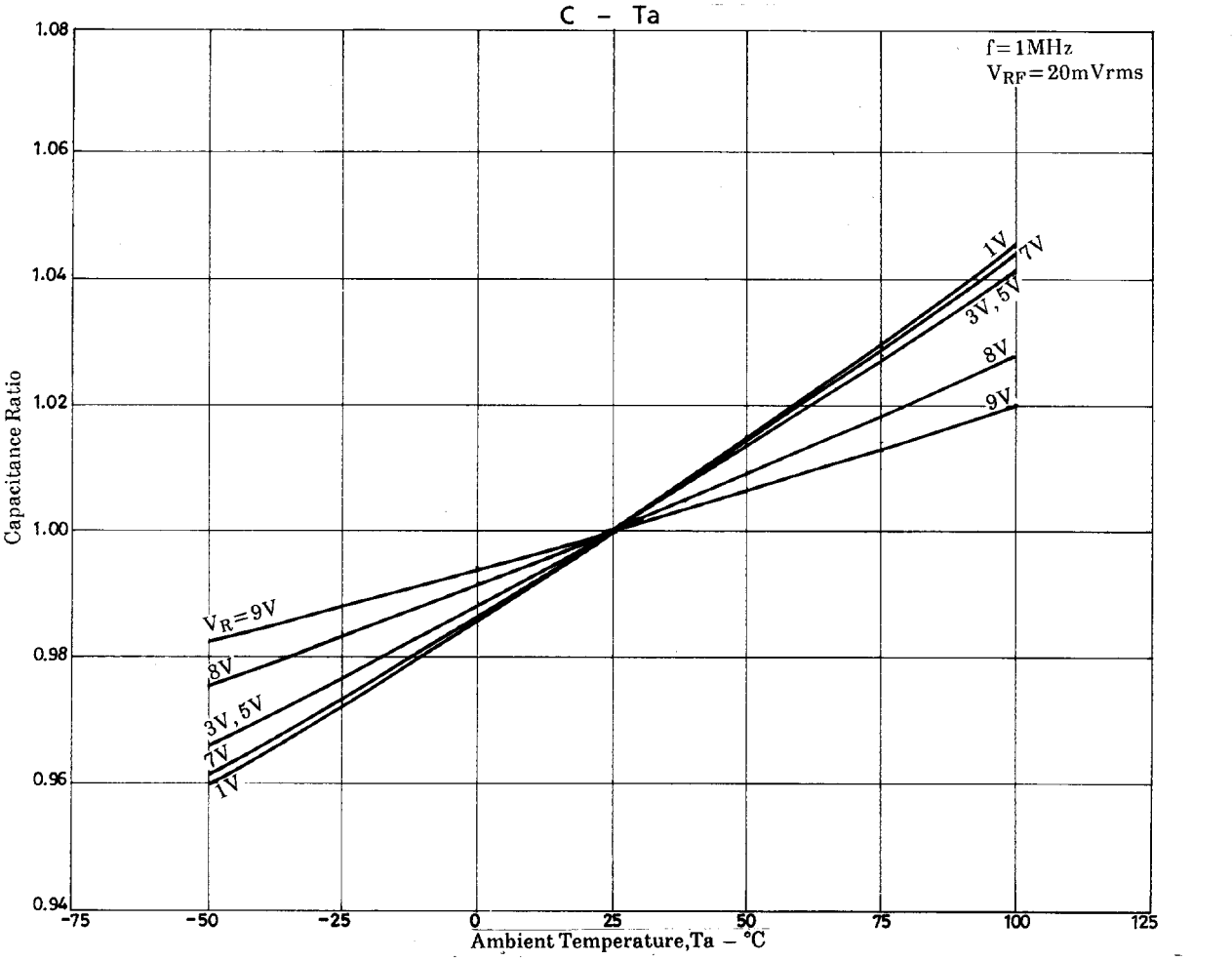
1,3:Anode
2:Cathode

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

C,Q – V_R


f=1MHz
V_{RF}=20mVrms
Interterminal Capacitance,C – pF
Quality Factor,Q
Quality factor,Q
Interterminal capacitance,C
One diode
Reverse Voltage,V_R – V

C – Ta


f=1MHz
V_{RF}=20mVrms
Capacitance Ratio
V_R=9V
8V
3V,5V
7V
1V
Ambient Temperature,Ta – °C

■ 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.