



SVC345

Silicon Diffused Junction Type
Varactor Diode

for AM Low-Voltage Electronic Tuning

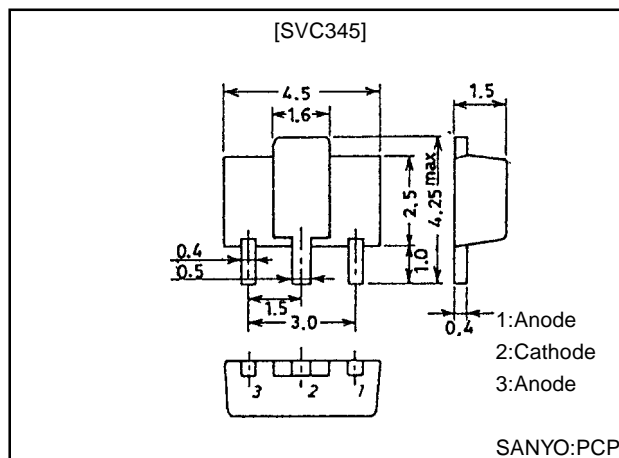
Features

- Twin type varactor diode for low-voltage AM electronic tuning applications.
- Low operating voltage ($\leq 6.5V$).
- High Q.
- Possible to offer the SVC345 devices in a tape reel packaging.
- Surface mount type.

Package Dimensions

unit:mm

1222A



Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		33	V
Junction Temperature	T_J		125	$^\circ C$
Storage Temperature	T_{stg}		-55 to +125	$^\circ C$

Electrical Characteristics at $T_a = 25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	$V_{(BR)R}$	$I_R = 10\mu A$	33			V
Reverse Current	I_R	$V_R = 20V$			100	nA
Interterminal Capacitance*1	$C_{1.0V}$	$V_R = 1.0V, f = 1MHz \times 2$	460.0*		540.0*	pF
	$C_{4.5V}$	$V_R = 4.5V, f = 1MHz$		64.0		pF
	$C_{6.5V}$	$V_R = 6.5V, f = 1MHz$	21.0		27.0	pF
Quality Factor	Q	$V_R = 1.0V, f = 1MHz$	200			
Capacitance Ratio	CR	$C_{1.0V}/C_{6.5V}$	17.5		24.5	
Matching Tolerance	ΔC_m	$(C_{max} - C_{min})/C_{min} \times 100$ (Between D1 to D2) $V_R = 1V$ 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.

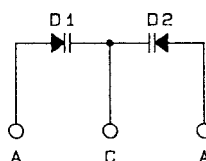
Note)*: The SVC345 are classified by $C_{1.0V}$ as follows:

Rank	$C_{1.0V}$ (pF)
R	460.0 to 491.0
S	482.0 to 515.0
T	505.0 to 540.0

· Marking: VB

Capacitance Rank: R, S, T

Electrical Connection



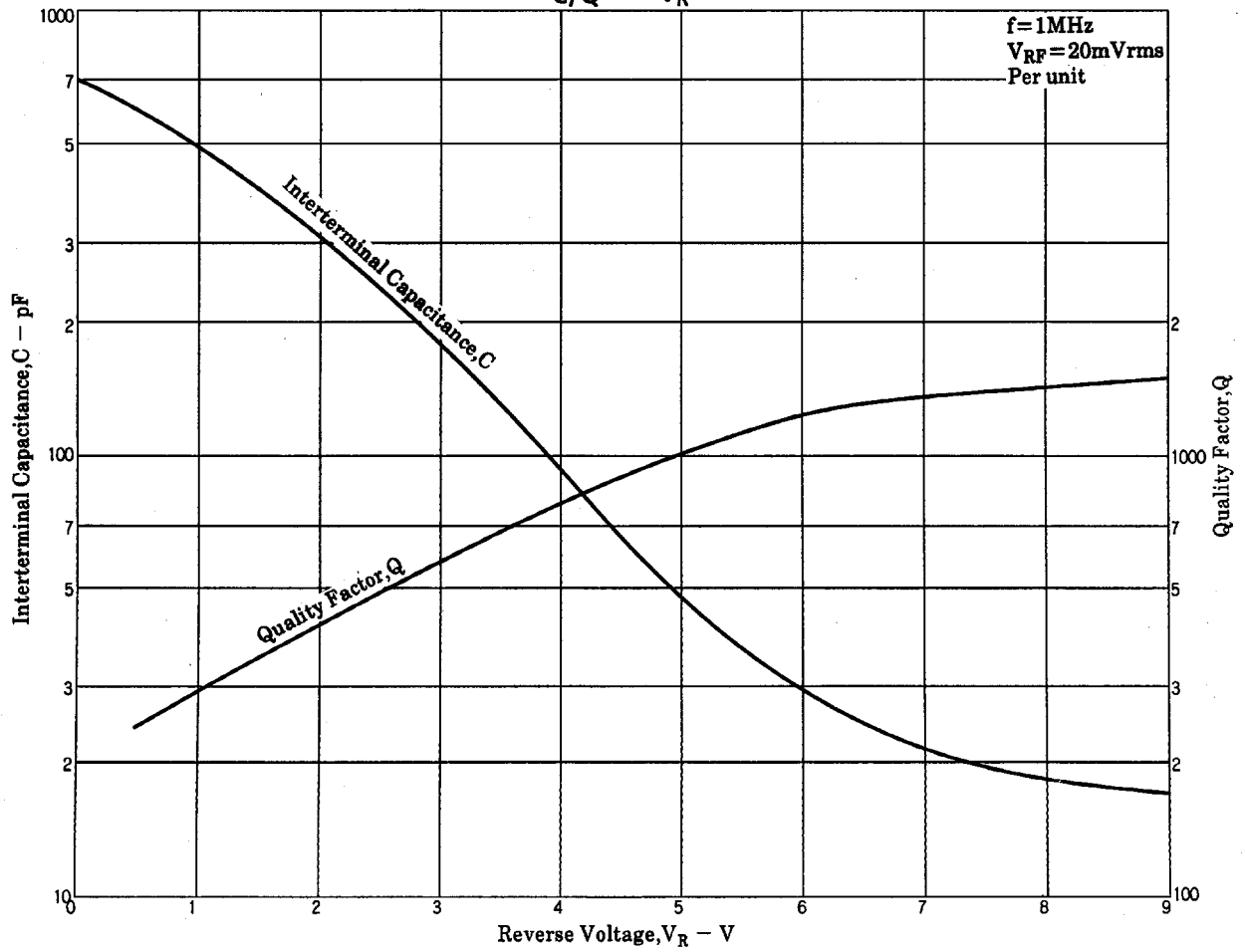
SANYO Electric Co., Ltd. Semiconductor Bussiness Headquarters

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

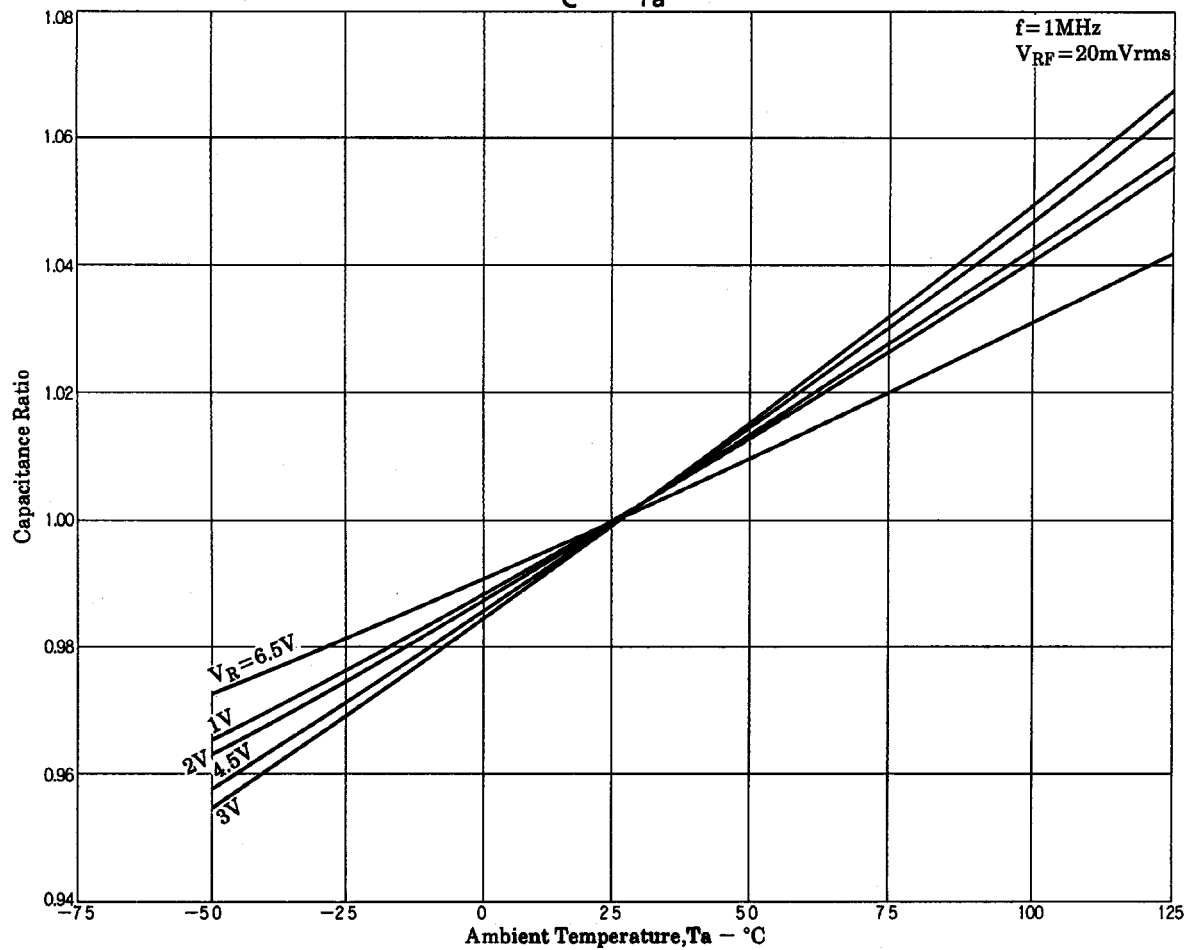
33098HA (KT)/D2095GI (KOTO)/AX-9029 No.5346-1/3

SVC345

C, Q - V_R



C - T_a



■ 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 responsibility 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.