

SANYO

No.935B

SVC333

Diffused Junction Type Silicon Diode

Varactor Diode (IOCAP)
for AM Receiver Electronic Tuning**Features**

The SVC333 is a small sized variable capacitance diode designed for AM electronic tuning. This diode works at high tuning voltage and has the high Q and the sufficiently high capacitance ratio and approximately linear change of log C with V_R .

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

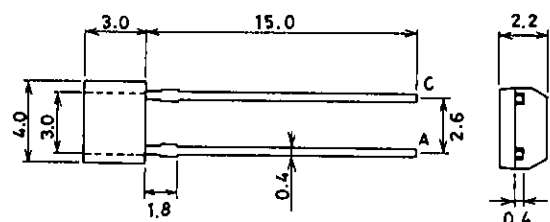
			unit
Reverse Voltage	V_R	-32	V
Forward Current	I_F	100	mA
Allowable Power Dissipation	P_D	100	mW
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Breakdown Voltage	$V_{(BR)R}$	$I_R = -10\mu\text{A}$	-32			V
Reverse Current	I_R	$V_R = -30\text{V}$			-100	nA
Interterminal Capacitance	$C_{3.0\text{V}}$	$V_R = -3.0\text{V}, f = 1\text{MHz}, v_i = 20\text{Vrms}$	345.0		408.4	pF
	$C_{10\text{V}}$	$V_R = -10\text{V},$	85.12		127.9	pF
	$C_{18\text{V}}$	$V_R = -18\text{V},$	35.36		53.91	pF
	$C_{25\text{V}}$	$V_R = -25\text{V},$	18.92		25.61	pF
Quality Factor	Q	$V_R = -3.0\text{V}, f = 1\text{MHz}$	300			
Capacitance Ratio	CR	$C_{3.0\text{V}}/C_{25\text{V}}$	15.00		19.00	
Matching Tolerance	ΔC_m	$(C_{\max} - C_{\min})/C_{\min}$ $V_R = -2.0$ to -25V			0.02	

※ : The SVC333 is classified by $C_{3.0\text{V}}$, $C_{25\text{V}}$ as follows :

Rank	$C_{3.0\text{V}}$ (pF)	$C_{25\text{V}}$ (pF)
A	345.0~379.1	18.92~25.23
B	371.7~408.4	19.20~25.61

Package Dimensions 1184
(unit: mm)

SANYO: SPA

C: Cathode
A: Anode

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

4289MO/O211KI, TS №935-1/4

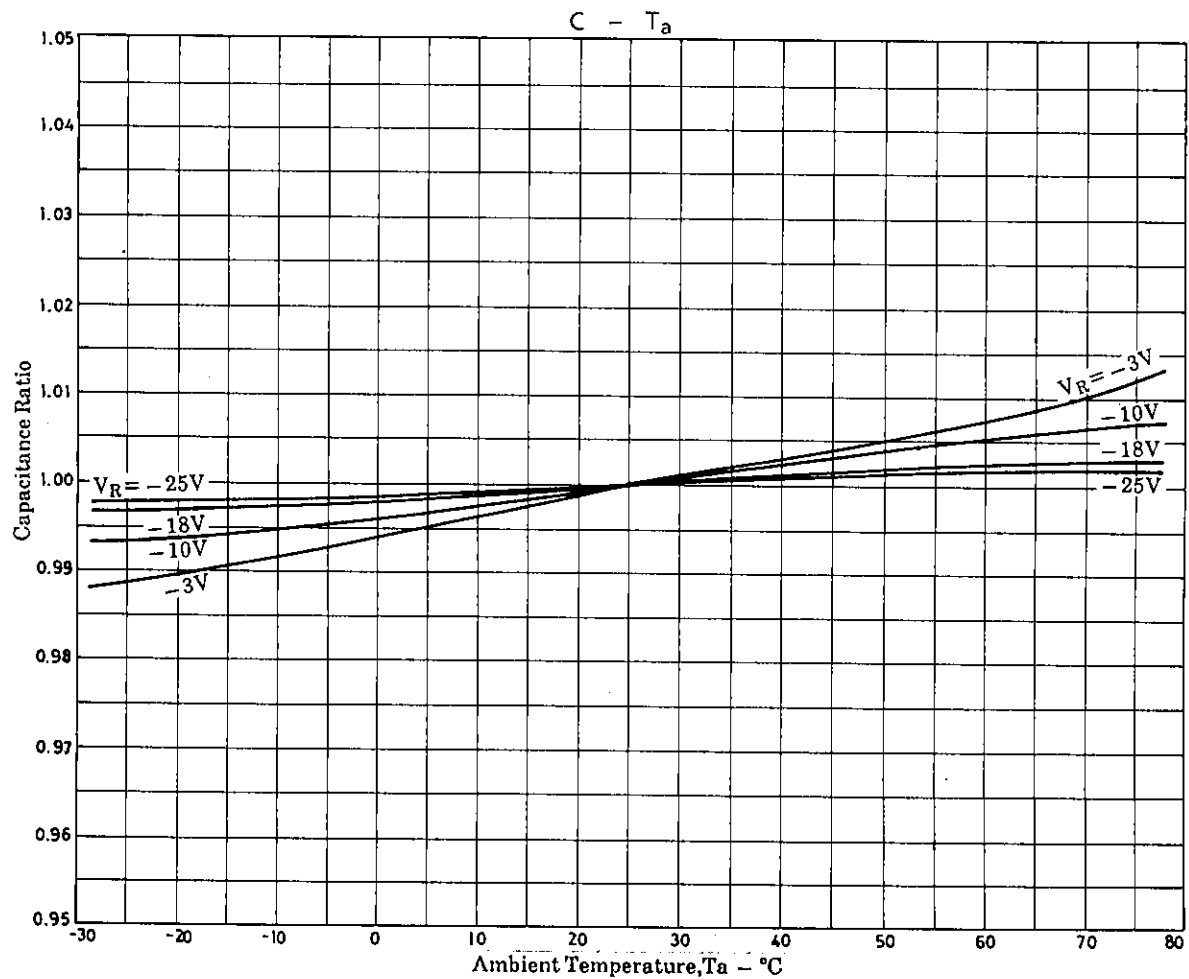
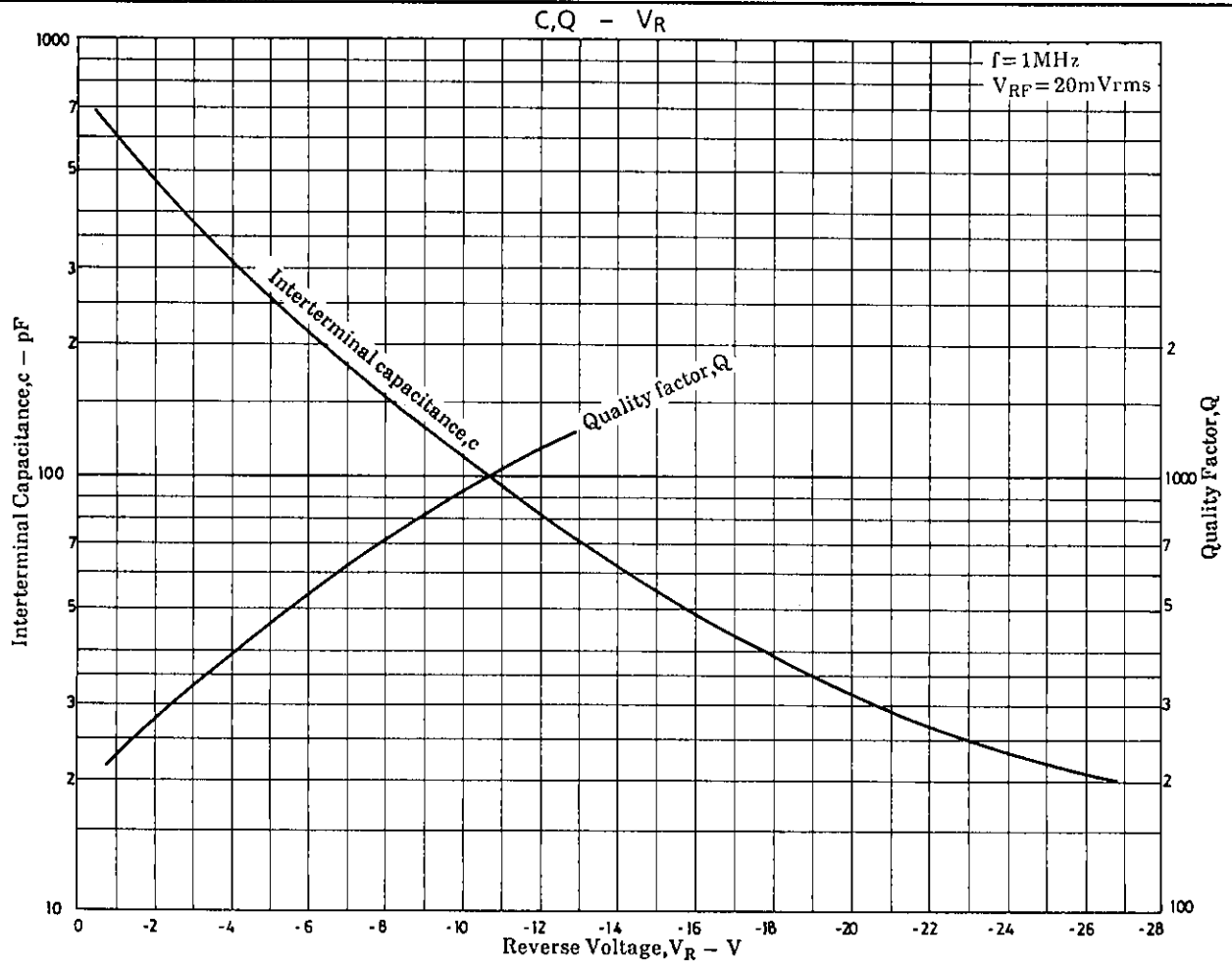
Address and Capacitance Value

VR=-3.0V		VR=-10V		VR=-18V		VR=-25V	
Address	Capacitance (pF)	Address	Capacitance (pF)	Address	Capacitance (pF)	Address	Capacitance (pF)
248	345.0~351.9	154	85.12~86.82	95	35.36~36.07	53	18.92~19.30
249	350.2~357.2	155	86.39~88.12	96	35.89~36.61	54	19.20~19.59
250	355.4~362.5	156	87.69~89.44	97	36.43~37.16	55	19.49~19.88
251	360.8~368.0	157	89.01~90.79	98	36.98~37.72	56	19.79~20.19
252	366.2~373.5	158	90.34~92.15	99	37.54~38.29	57	20.08~20.48
253	371.7~379.1	159	91.70~93.53	100	38.09~38.86	58	20.38~20.79
254	377.3~384.8	160	93.08~94.94	101	38.66~39.44	59	20.69~21.10
255	382.9~390.6	161	94.46~96.35	102	39.24~40.03	60	21.00~21.42
256	388.6~396.4	162	95.89~97.81	103	39.83~40.63	61	21.32~21.74
257	394.5~402.4	163	97.33~99.27	104	40.43~41.24	62	21.64~22.07
258	400.4~408.4	164	98.78~100.8	105	41.04~41.86	63	21.95~22.39
		165	100.2~102.3	106	41.66~42.49	64	22.28~22.73
		166	101.7~103.8	107	42.27~43.12	65	22.62~23.08
		167	103.3~105.4	108	42.91~43.77	66	22.96~23.42
		168	104.8~106.9	109	43.56~44.43	67	23.30~23.77
		169	106.4~108.6	110	44.21~45.09	68	23.66~24.13
		170	108.0~110.2	111	44.88~45.78	69	24.01~24.49
		171	109.6~111.8	112	45.55~46.46	70	24.37~24.86
		172	111.3~113.5	113	46.22~47.15	71	24.74~25.23
		173	112.9~115.2	114	46.92~47.86	72	25.11~25.61
		174	114.6~116.9	115	47.63~48.58		
		175	116.4~118.7	116	48.34~49.31		
		176	118.1~120.5	117	49.07~50.05		
		177	119.9~122.3	118	49.81~50.80		
		178	121.7~124.1	119	50.55~51.56		
		179	123.5~126.0	120	51.31~52.34		
		180	125.4~127.9	121	52.08~53.12		
				122	52.86~53.91		

Rank Width

$\begin{matrix} C_{25V} \\ C_{3V} \end{matrix}$	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
248																				
249																				
250																				
251																				
252																				
253																				
254																				
255																				
256																				
257																				
258																				

SVC333



- 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.