

SVC333

Diffused Junction Type Silicon Diode Varactor Diode (IOCAP) for AM Receiver Electronic Tuning

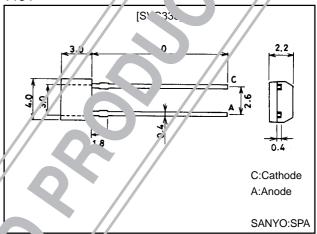
Features

• 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.

Package Dimensions

unit:mm

1184



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	VR		32	V
Forward Current	//F		100	mA
Allowable Power Dissipation	PD		100	mW
Junction Temperature	Ti	///	125	°C
Storage Temperature	TSus	//	-55 to +125	°C

Electrical Characteristics at Γa = 15°C

Parameter	nbol	Conditions	Ratings			Unit
Falametel	Conditions		min	typ	max	l Ollit
Breakdown Voltage	V(BR)R	/ _R =10μA	32			V
Reverse Current	IR	√ _R =30V			100	nA
Interterminal Capacitance	C _{3.0}	V _R =3.0V, f=1MHz, vi=20Vrns	345.0		408.4	pF
	C _{10V}	V _R =10V, f=1MHz, vi=20Vrns	85.12		127.9	pF
	513V	V _R =18V, f=1MHz, vi=20Vrns	35.36		53.91	pF
	9-25V	V _R =25V, f=1MHz, vi=20Vrns	18.92		25.61	pF
Quality Factor	Q	V _R =3.0V, f=1MHz	300			
Capacitanc/ Patio	CR	C _{3.0V} /C _{25V}	15.00		19.00	
Matching Tolerance	ΔC _m	$(C_{max}-C_{min})/C_{min}$, $V_R=2.0$ to 25V			0.02	

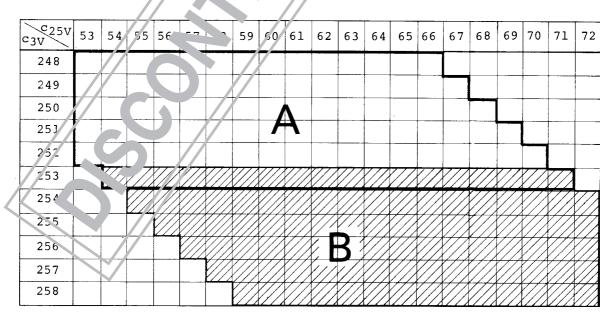
*:The SVC335 clas fied by $C_{3.0V}$, C_{25V} as follow:

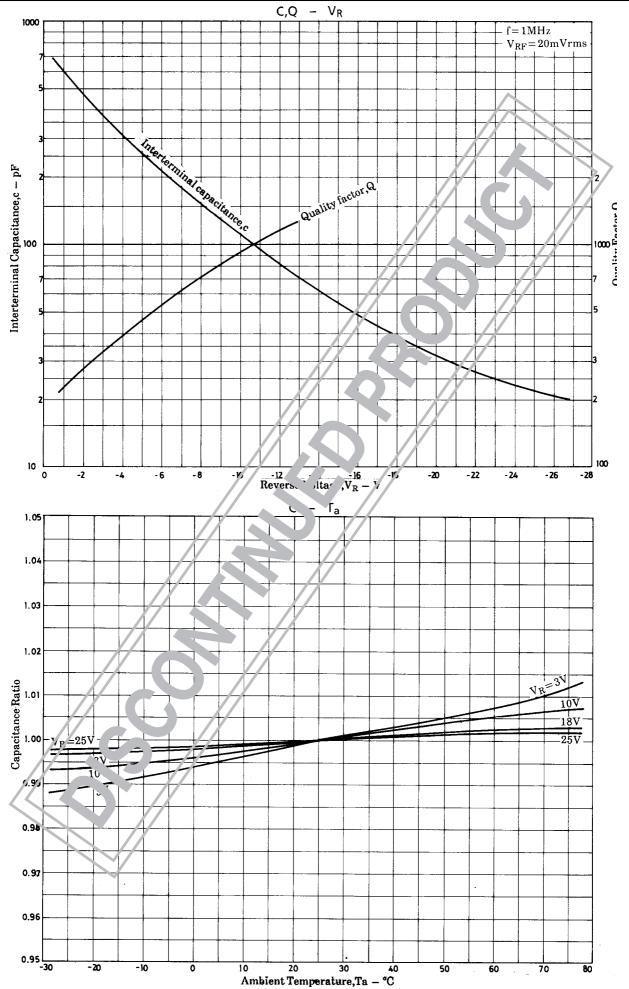
	Rank	2 _{3.0V} (pF)	C _{25V} (pF)
	Α	345.0 to 379.1	18.92 to 25.23
•	E	371.7 to 408.4	19.20 to 25.61

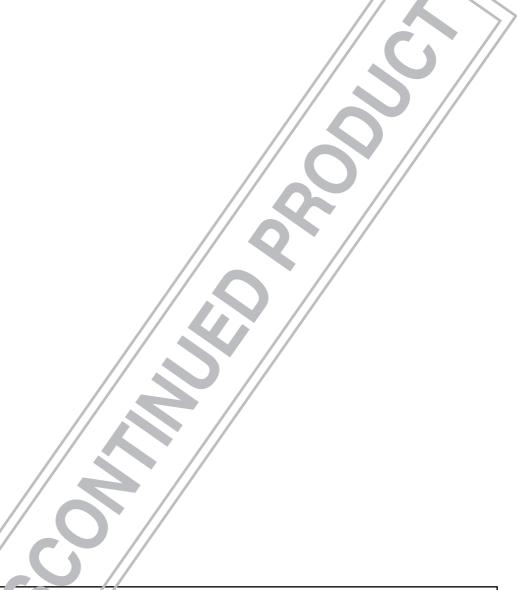
Address and Capacitance Value

V _R =3.0V		V _R =10V		V _R =18V		V _R =25V		
Address	Capacitance (pF)	Address	Capacitance (pF)	Address	Capacitance (pF)	Address	Capacitance (pF)	
248	345.0 to 351.9	154	85.12 to 86.82	95	35.36 to 36.07	53	18.92 to 19.30	
249	350.2 to 357.2	155	86.39 to 88.12	96	35.89 to 36.61	54	19.20 to 19.59	
250	355.4 to 362.5	156	87.69 to 89.44	97	36.43 to 37.16	55	19.19 to 19.88	
251	360.8 to 368.0	157	89.01 to 90.79	98	36.98 to 37.72	56//	19.79 10 20.13	
252	366.2 to 373.5	158	90.34 to 92.15	99	37.54 to 38.29	57/	2 38 to 20.43	
253	371.7 to 379.1	159	91.70 to 93.53	100	38.09 to 38.86	158	a 1 to 20.79	
254	377.3 to 384.8	160	93.08 to 94.94	101	38.66 to 39.44	59	20.69 . 11.10	
255	382.9 to 390.6	161	94.46 to 96.35	102	39.24 to 40.03	60	21 0 to 21.42	
256	388.6 to 396.4	162	95.89 to 97.81	103	39.83 to 40/33	61	21 : to 21.74	
257	394.5 to 402.4	163	97.33 to 99.27	104	40.43 to 4/1.74	6ic	≥ 1.64 to 2/2.0/	
258	400.4 to 408.4	164	98.78 to 100.8	105	41.04 to 4/1.86	43	21.95 to 22.39	
		165	100.2 to 102.3	106	41.6% tr. 42.49	64	22.28/to/22.73	
		166	101.7 to 103.8	107	42/27 to 43.1		22/62/to 23.08	
		167	103.3 to 105.4	108	42/91 to 43.77		72/36 to 23.42	
		168	104.8 to 106.9	109	43.56 tr 4.45	67	23.30 to 23.77	
		169	106.4 to 108.6	110	44.21 tc 5.09	68	23.66 to 24.13	
		170	108.0 to 110.2	11/2	44 4b.	69/	24.01 to 24.49	
		171	109.6 to 111.8	7/12/	(55) 16	70/	24.37 to 24.86	
		172	111.3 to 113.5	//13	46.s. 147.15	/71	24.74 to 25.23	
		173	112.9 to 115.2	114	4 32 to 47.86	72	25.11 to 25.61	
		174	114.6 to 116.9	115	.63 to 48.58	Y		
		175	116.4 to 115.7	116	4b. 4 to 49.51			
		176	118.1 to 25.5	.47:	49.07 to 50.96			
		177	119.9 % /22.3	18	49.81 V 50.80			
		178	121// /6 124.1	115	50.55 tr 51.56			
		179	123/a to 126.	12'	51/31/ to 52.34			
		180	125.4 to 1. 3	1	52/08 to 53.12			
				122	/s2.86 to 53.91			

Rank Width







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