

SANYO**SVC333**

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

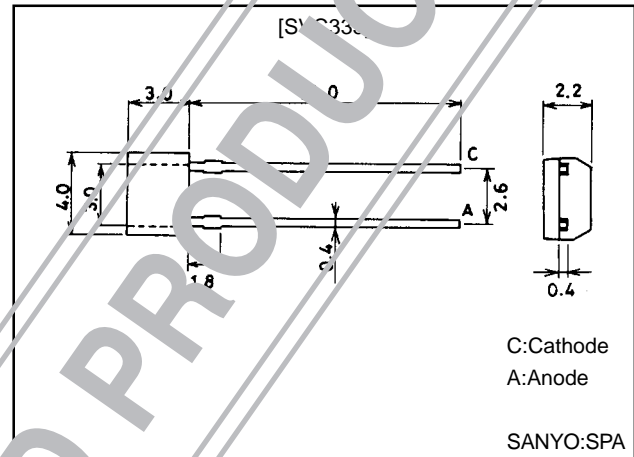
Features

- 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 $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	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 $T_a = 25^\circ\text{C}$

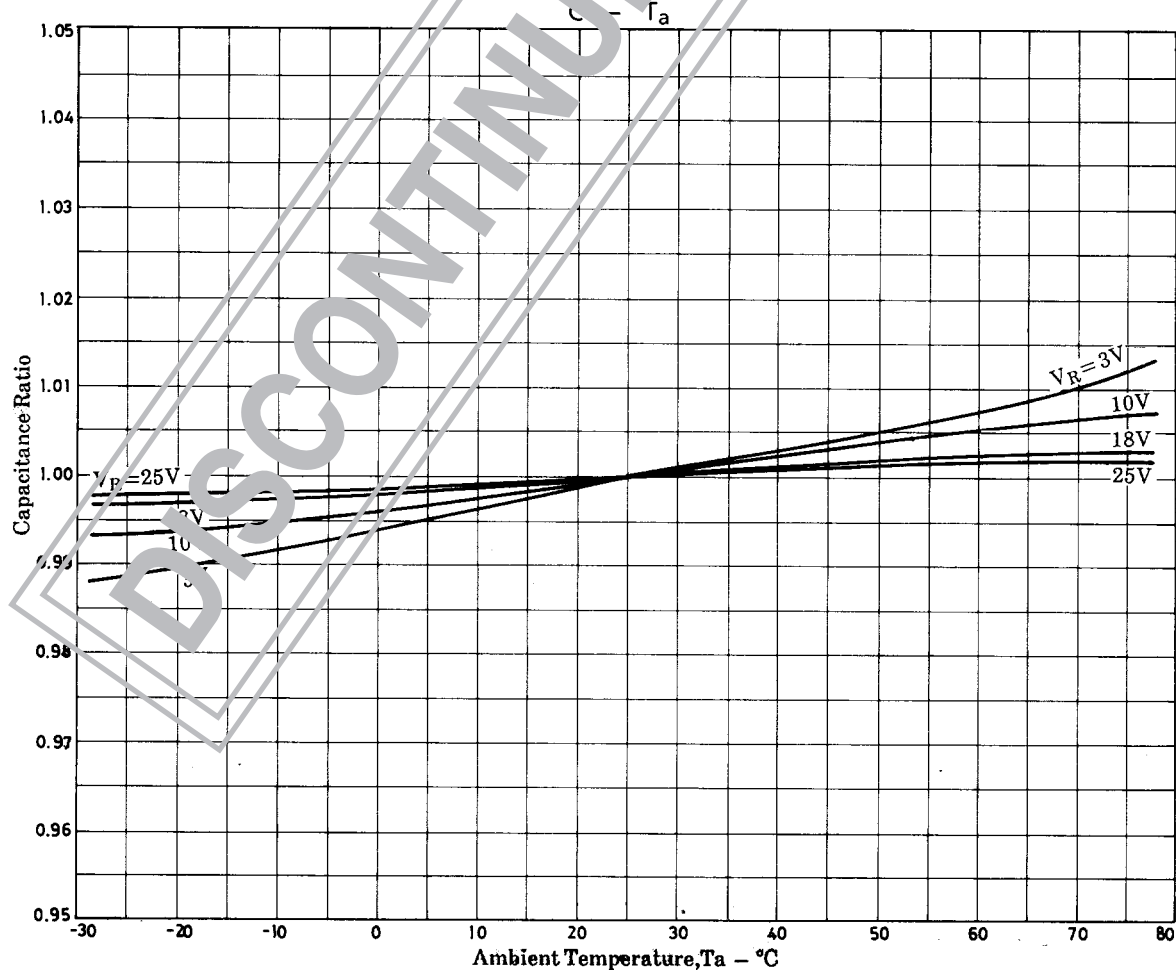
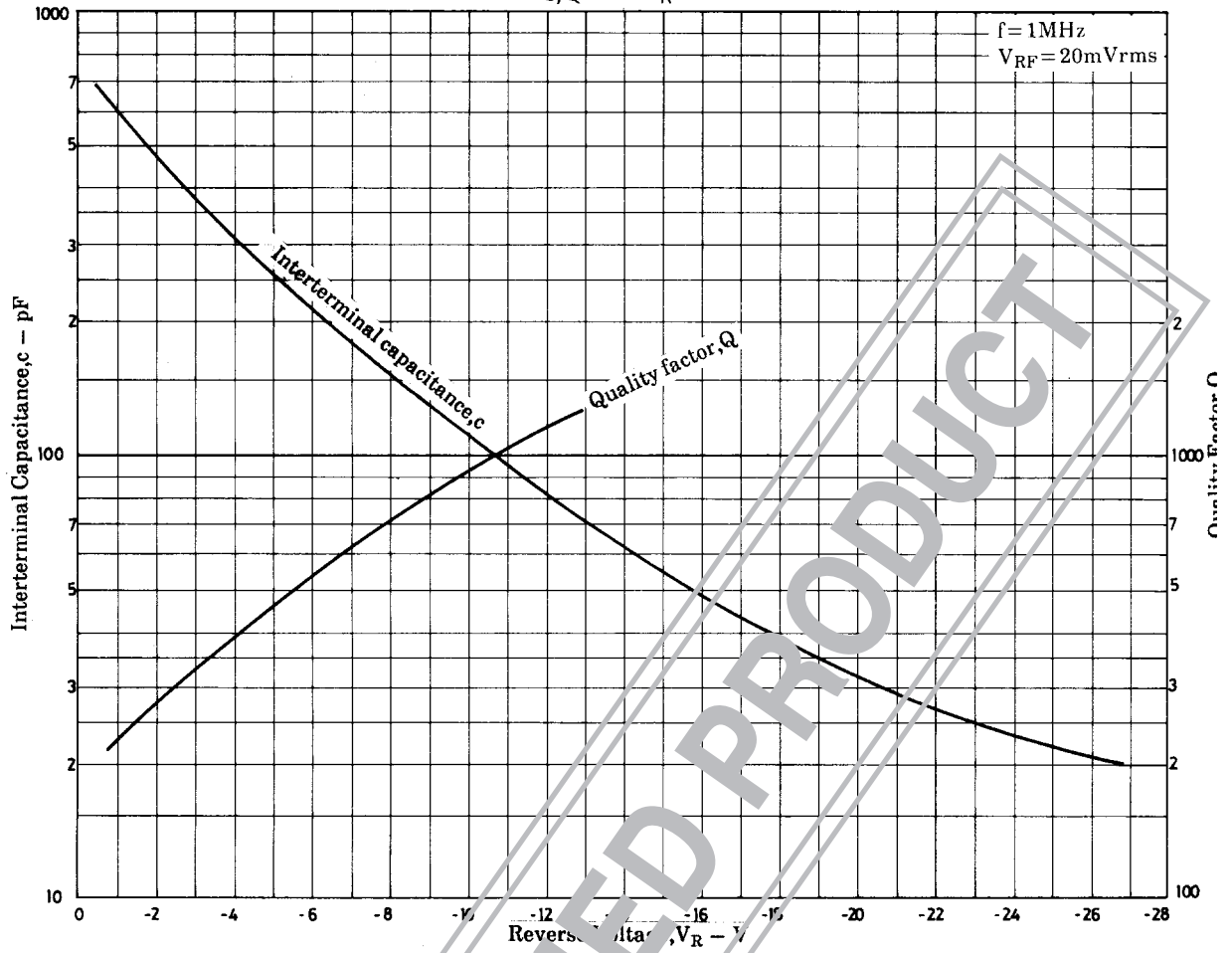
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	$V_{(BR)R}$	$I_R=10\mu\text{A}$	32			V
Reverse Current	I_R	$V_R=30\text{V}$			100	nA
Interterminal Capacitance	$C_{3.0V}$	$V_R=3.0\text{V}, f=1\text{MHz}, v_i=20\text{Vrms}$	345.0		408.4	pF
	C_{10V}	$V_R=10\text{V}, f=1\text{MHz},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

*:The SVC333 is classified by $C_{3.0V}$, C_{25V} as follow:

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

SVC333

$C, Q - V_R$





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