

**SVC353**

Diffused Junction Type Silicon Diode Composite Varactor Diode for AM Receiver Low-Voltage Electronic Tuning Use

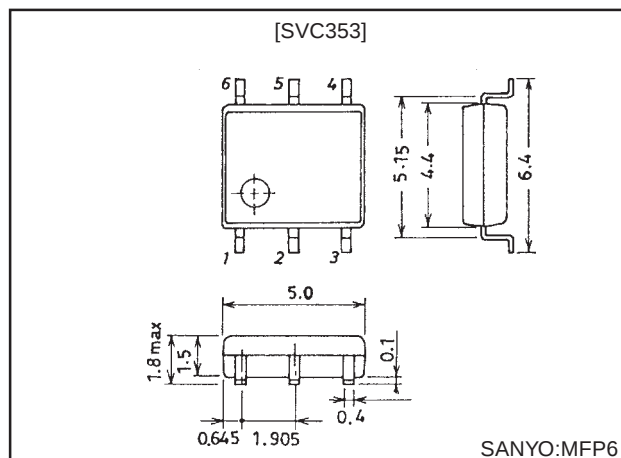
Features

- Excellent matching characteristics because of composite type.
- The number of manufacturing processes can be reduced and automatic mounting is possible because of composite type.
- High capacitance ratio and high quality factor.
- Possible to offer the SVC353 devices in a tape reel packaging.
- Surface mount type.

Package Dimensions

unit:mm

1214B



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		16	V
Junction Temperature	T_J		125	°C
Storage Temperature	T_{stg}		-55 to +125	°C

Electrical Characteristics at Ta = 25°C

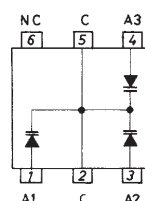
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	$V_{(BR)R}$	$I_R=10\mu A$	16			V
Reverse Current (One diode)	I_R	$V_R=9V$			100	nA
Interterminal Capacitance (Average)	C_{1V}	$V_R=1V, f=1MHz^*1$	460.0*		540.0*	pF
	C_{6V}	$V_R=6V, f=1MHz$		52.0		pF
	C_{8V}	$V_R=8V, f=1MHz$	21.0		27.0	pF
Quality Factor	Q	$V_R=1V, f=1MHz$	200			
Capacitance Ratio	CR	$C_{1V}/C_{8V}, f=1MHz$	17.5		24.5	
Matching Tolerance	ΔC_m^*2	$V_R=1V$ to $8V, f=1MHz$			± 2.5	%

Note)*1:1MHz signal:20mVrms

Note)*2: $\Delta C_m = (C_{Dn} - C_{D3}) / C_{D3} \times 100$ Note)*:The SVC353 is classified by C_{1V} as follows:

Rank	$C_{1V}(pF)$
R	460.0 to 491.0
S	482.0 to 515.0
T	505.0 to 540.0

Electrical Connection

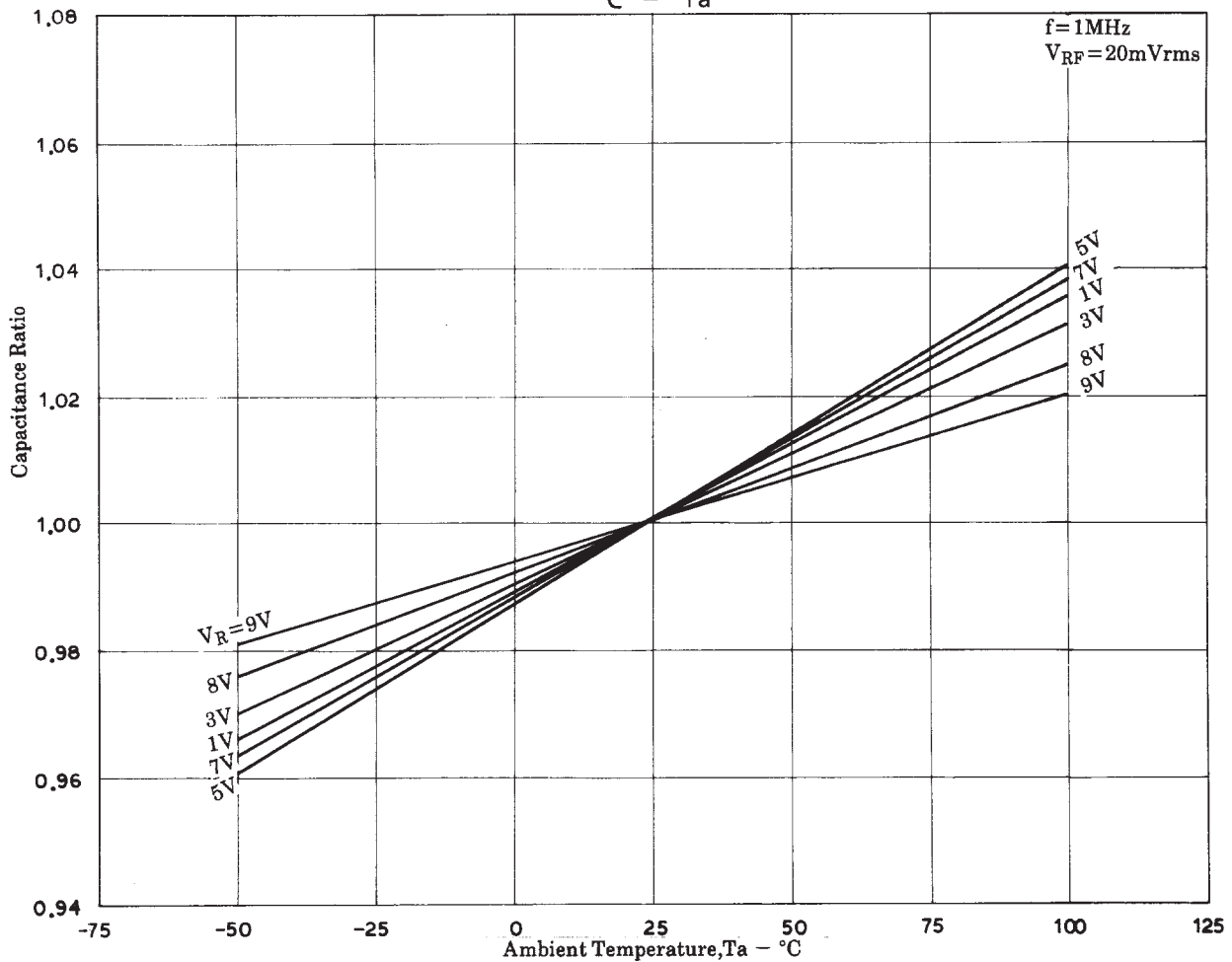
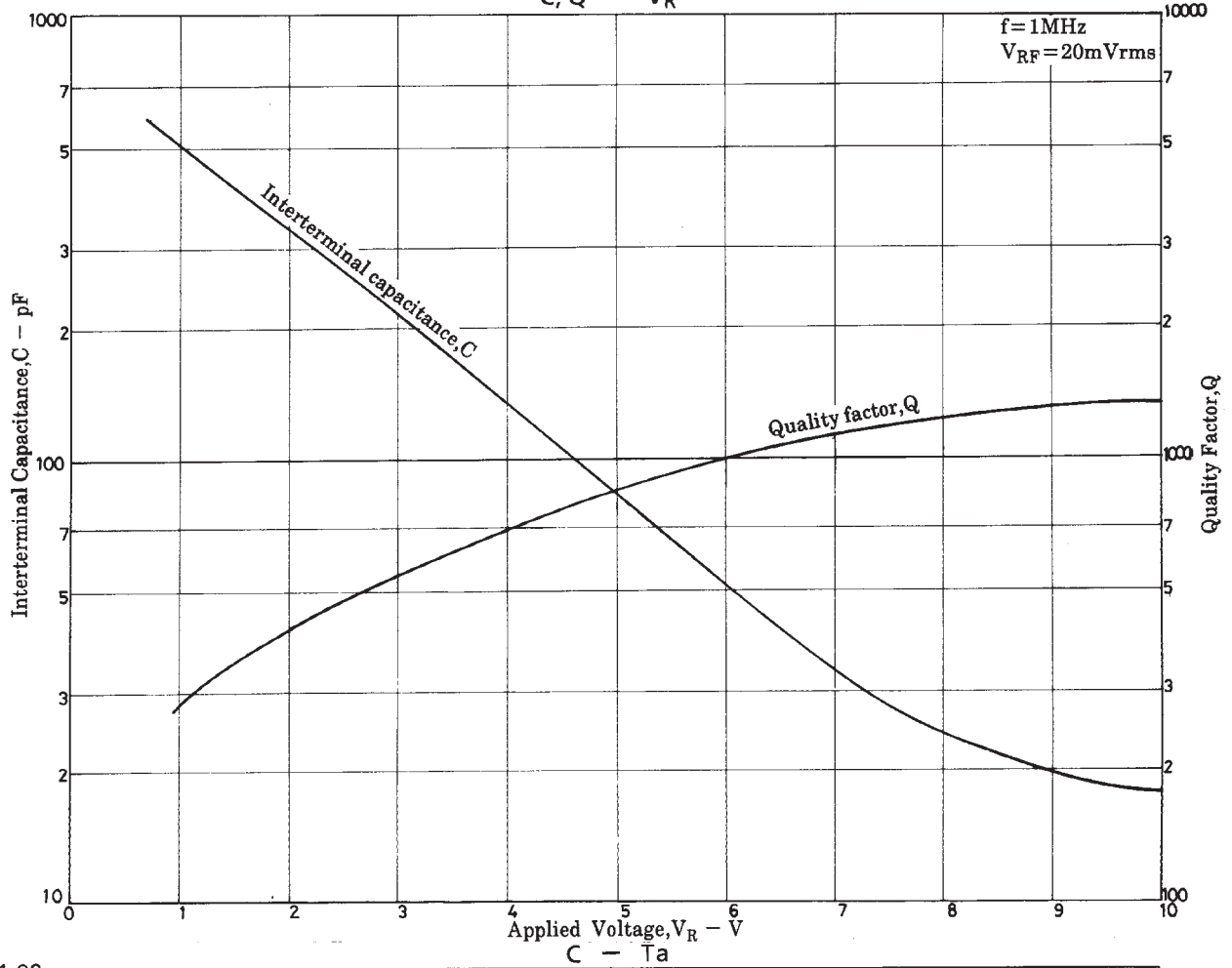
A:Anode
C:Cathode
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SVC353

C, Q - V_R



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