



# SVC354

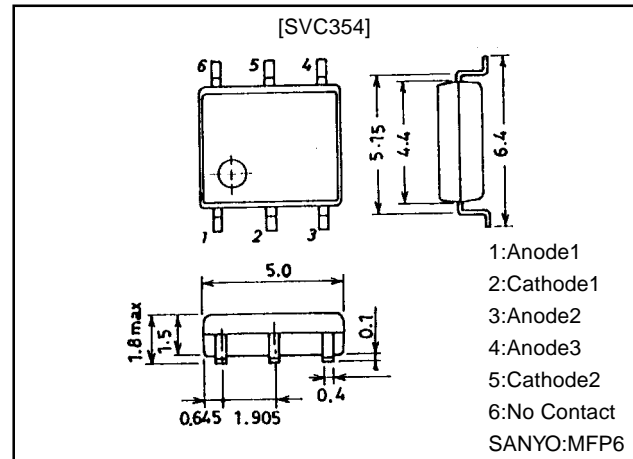
## Diffused Junction Type Silicon Diode Composite Varactor Diode for AM Receiver Low-Voltage Electronic Tuning Applications

### Features

- Excellent matching characteristics because of composite type.
- Manufacturing processes reducible and automatic mounting supported.
- High capacitance ratio and high quality factor.
- Capacitance separated in RF and OSC.
- Tape reel packaging.
- Surface mount type.

### Package Dimensions

unit:mm  
1267



### 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	$\Delta C_m^*2$	$V_R=1V$ to $8V, f=1MHz$			$\pm 2.5$	%

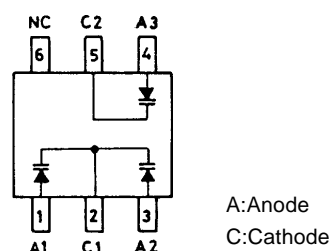
Note)\*1:1MHz signal:20mVrms

Note)\*2: $\Delta C_m = (C_{Dn} - C_{D3}) / C_{D3} \times 100$

Note)\*:The SVC354 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

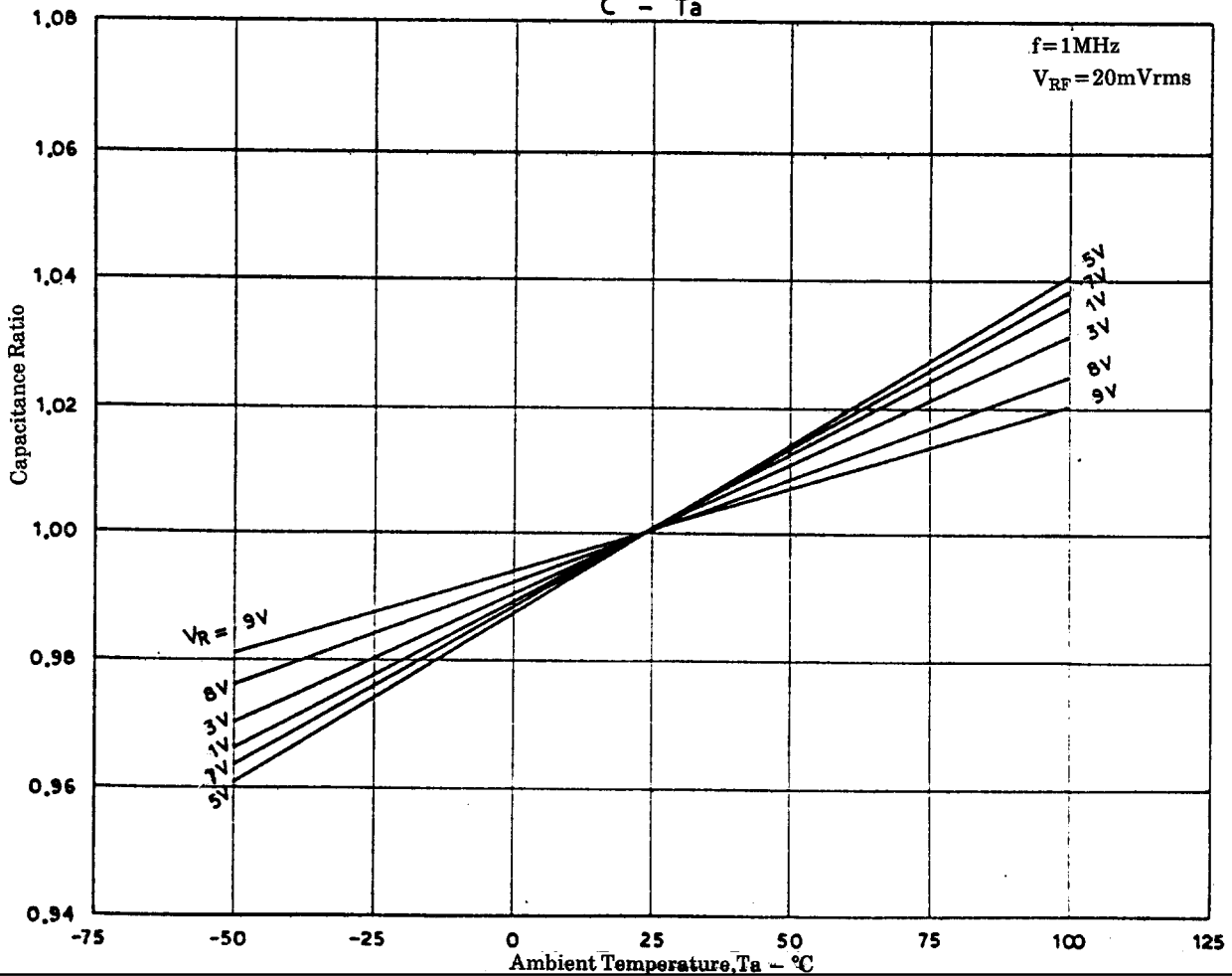
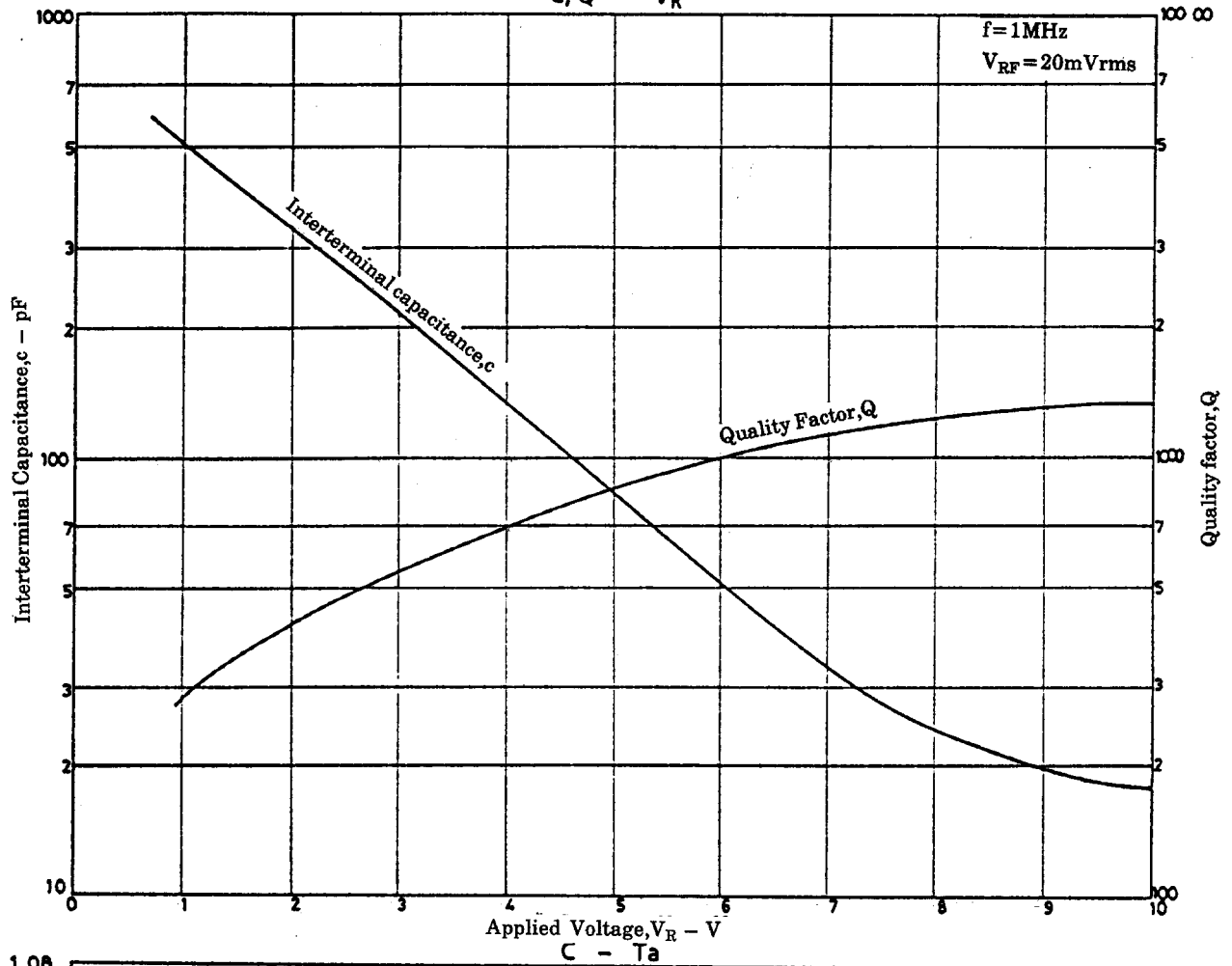
### Electrical Connection



A:Anode  
C:Cathode

# SVC354

C, Q - V<sub>R</sub>



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