



# SVC388 — AM Low Voltage Electronic Tuning Applications

Hyper-Abrupt Junction Type Silicon Composite Varactor

## Features

- Twin type varactor diode for AM electronic tuning use.
- High capacitance ratio and high quality factor.
- Provided in a tape and reel packaging format.

## 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 (Capacitance value of one diode)	$C_{1V}$	$V_R=1V, f=1MHz$ *1	470*		525*	pF
	$C_{6V}$	$V_R=6V, f=1MHz$		55		pF
	$C_{8V}$	$V_R=8V, f=1MHz$	20		26	pF
Quality Factor	$Q$	$V_R=1V, f=1MHz$	200			
Capacitance Ratio	$CR$	$C_{1V} / C_{8V}, f=1MHz$	18.5			
Matching Tolerance *2	$\Delta C_m$	$(C_{max}-C_{min}) / C_{min} \times 100$				
		$V_R=1V, f=1MHz$			1.5	%
		$V_R=6V, f=1MHz$			2.0	%
		$V_R=8V, f=1MHz$			2.0	%

\*1 : 1MHz signal : 20mVrms

\*2 : Between D1 and D2 Matching Tolerance

\* : SVC388 are classified by  $C_{1V}$  as right :

Rank	$C_{1V}$ (pF)
S	470 to 505
T	485 to 525

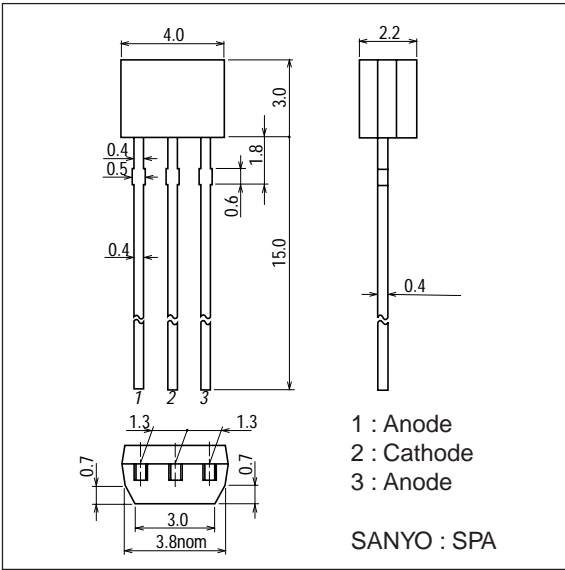
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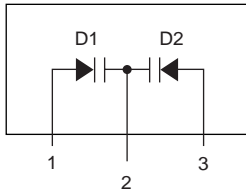
### Package Dimensions

unit : mm

1292

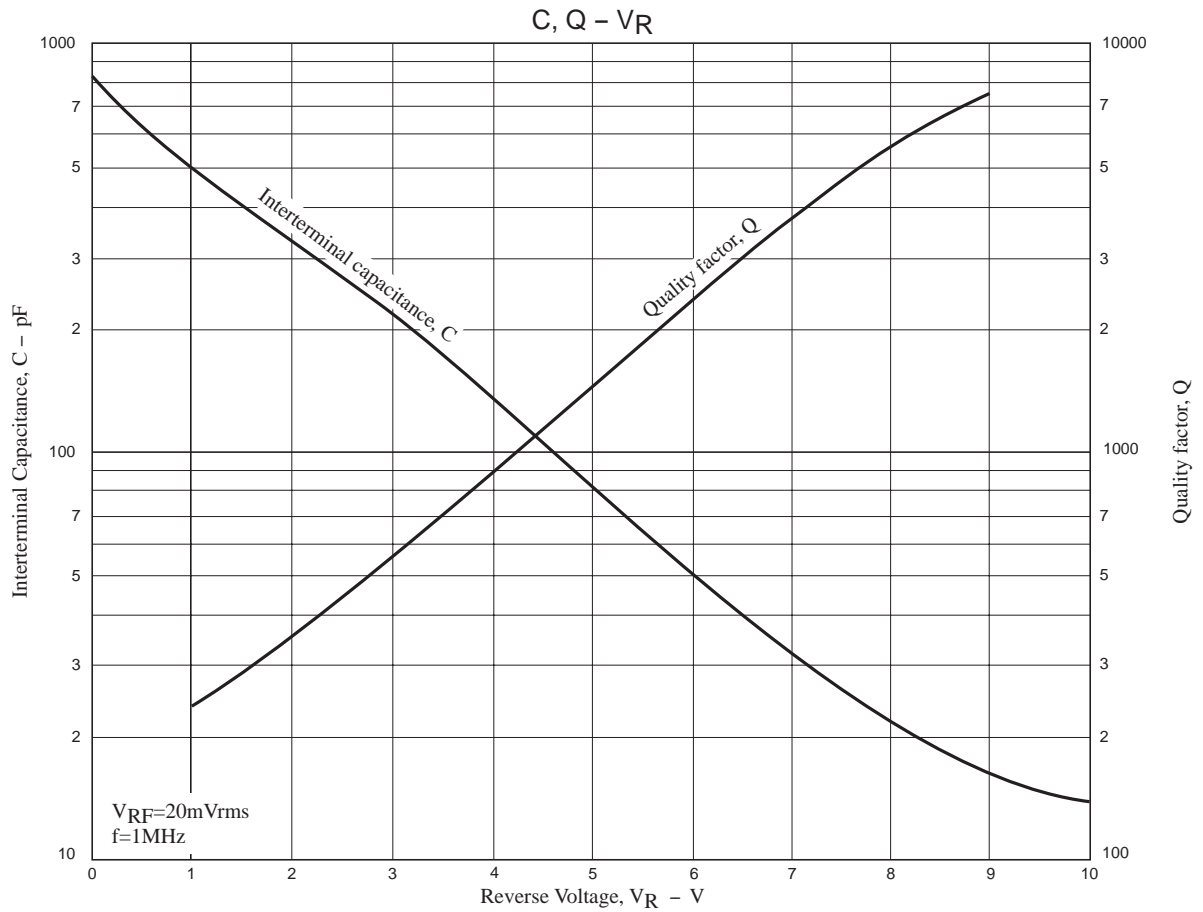


### Electrical Connection



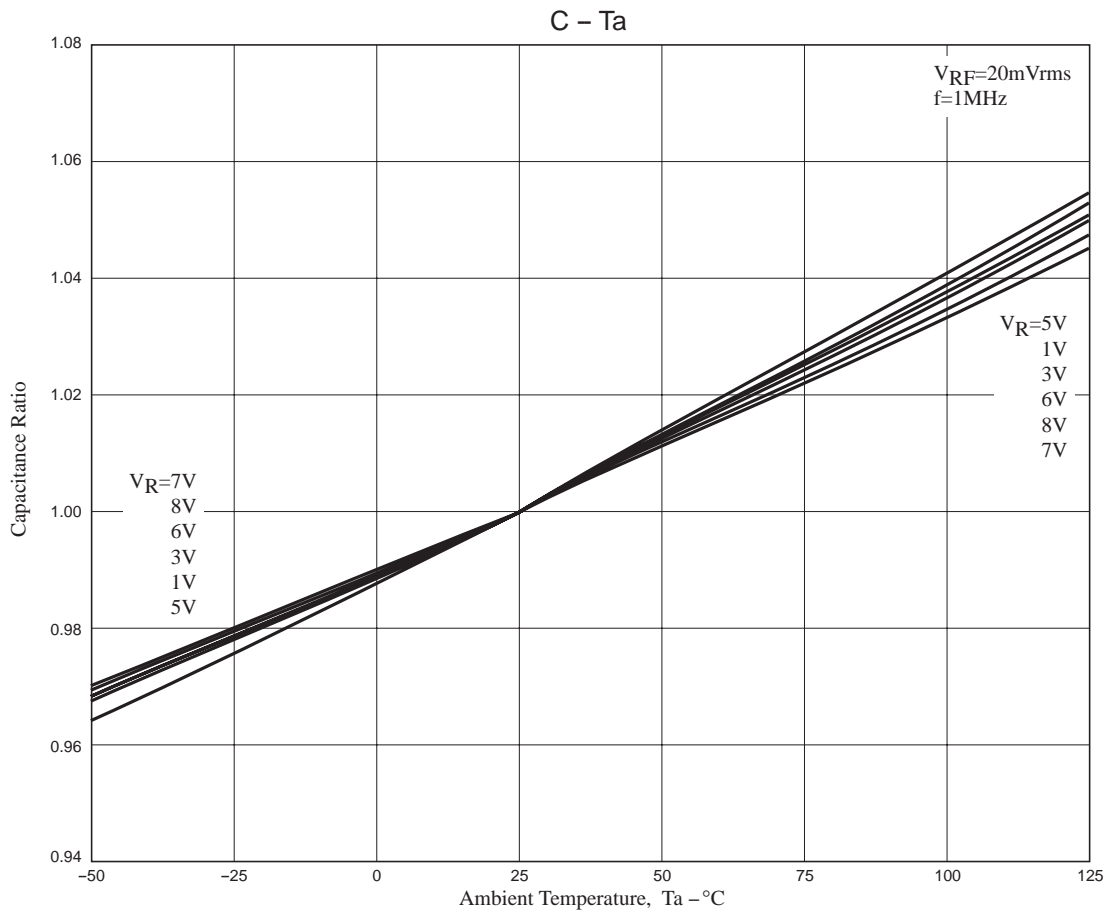
1 : Anode  
2 : Cathode  
3 : Anode

Top view



IT08217

# SVC388



IT08218

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