

## SVC203CP

# Varactor Diode for FM Low-Voltage Electronic Tuning Use

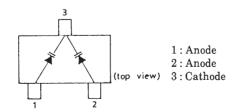
### **Features**

- Dual type with a good linearity of C-V characteristic. Excels in large input characteristics.
- Small-sized package (CP) usable in ultrasmall-sized sets (surface mount type).
- Applicable to FM wide band due to high capacitance ratio (V<sub>R</sub>=1.5 to 9V).

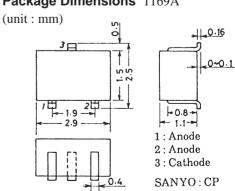
Absolute Maximum Ratin	OC -4 T- 05	°C			:4	
	•				unit	
Reverse Voltage	$v_R$			16	V	
Junction Temperature	Tj			125	°C	
Storage Temperature	Tstg		–55 to	+125	°C	
<b>Electrical Characteristics</b>	at Ta=25°C		min	typ	max	unit
Breakdown Voltage	$V_{(BR)R}$	$I_R=1\mu A$	16			V
Reverse Current	$I_{\mathbf{R}}$	$V_R=10V$			50	nA
Interterminal Capacitance*	$c_{1.0v}$	$V_R=1.0V$ , $f=1MHz$	58.80		65.98	pF
	$C_{6.0V}$	$V_R$ =6.0 $V$ , f=1 $MHz$	18.72		25.11	pF
	C9.0V	$V_R=9.0V$ , $f=1MHz$	10.84		13.40	pF
Quality Factor	Q	$V_R=3.0V$ , $f=1MHz$	60			
Capacitance Ratio	$C_{\mathbf{R}}$	$C_{1.0V}/C_{9.0V}$	4.6			
Matching Tolerance	$\Delta Cm$	$V_R=1.0V$ ( $C_{max}$	C <sub>min</sub> )		6.5	%
		$V_R=6.0V$ $C_n$	×100		5.5	%
		$V_{R}=9.0V$			11.8	%

<sup>\* :</sup> Capacitance value of one diode

#### **Electrical Connection**

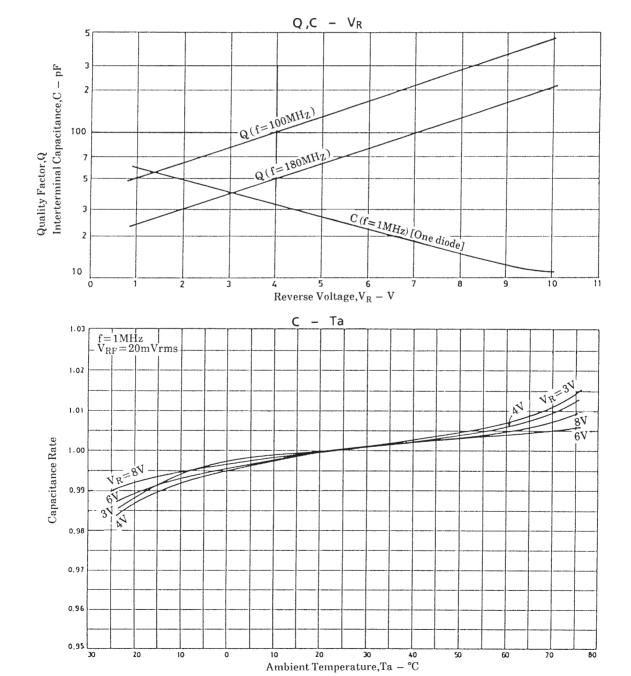


#### Package Dimensions 1169A



## Address and Capacitance Value (Reference Value)

C 1.0V	C 6.0V	C 9.0V
Address Capacitance (pF)	Address Capacitance (pF)	Address Capacitance (pF)
11 [59.10 62.92	61 <sub>[18.91</sub> 19.95	91 [10.89 12.17
12 [61.67	62 [19.76 20.85	92 <sub>[13.33</sub>
	63 <sup>20.64</sup> 21.79	
	64 <sub>22.77</sub> 22.77	
	65 <sub>23.80</sub>	
	66 [23.56 24.87	



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