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# ON Semiconductor DATA SHEET

## SVC236 — Varactor Diode for FM Receiver Electronic Tuning Use

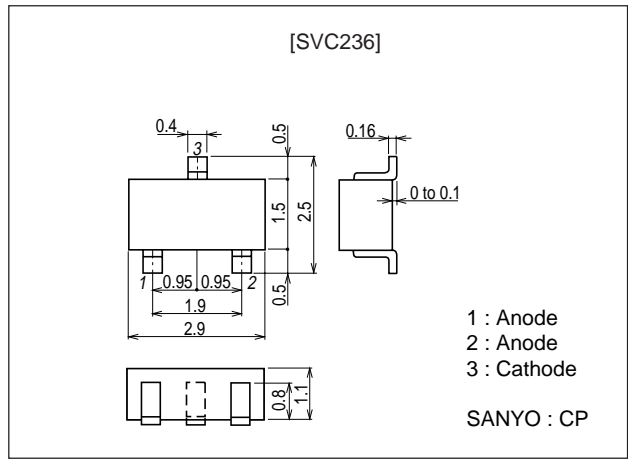
Diffused Junction Type Silicon Diode

### Features

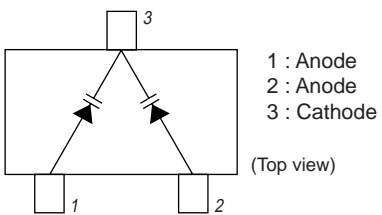
- Low voltage (6.5V).
- Twin type varactor diode with good large-signal characteristics for FM receiver electronic tuning use.
- Very small package permits SVC236-applied sets to be compact and slim.
- Can be also provided in tape reel package and automatic insertion is supported.
- High capacitance ratio ( $V_R=1.0$  to  $6.5V$ ).

### Package Dimensions

unit : mm  
1169A



### Electrical Connection



### Specifications

Absolute Maximum Ratings at  $T_a=25^\circ C$

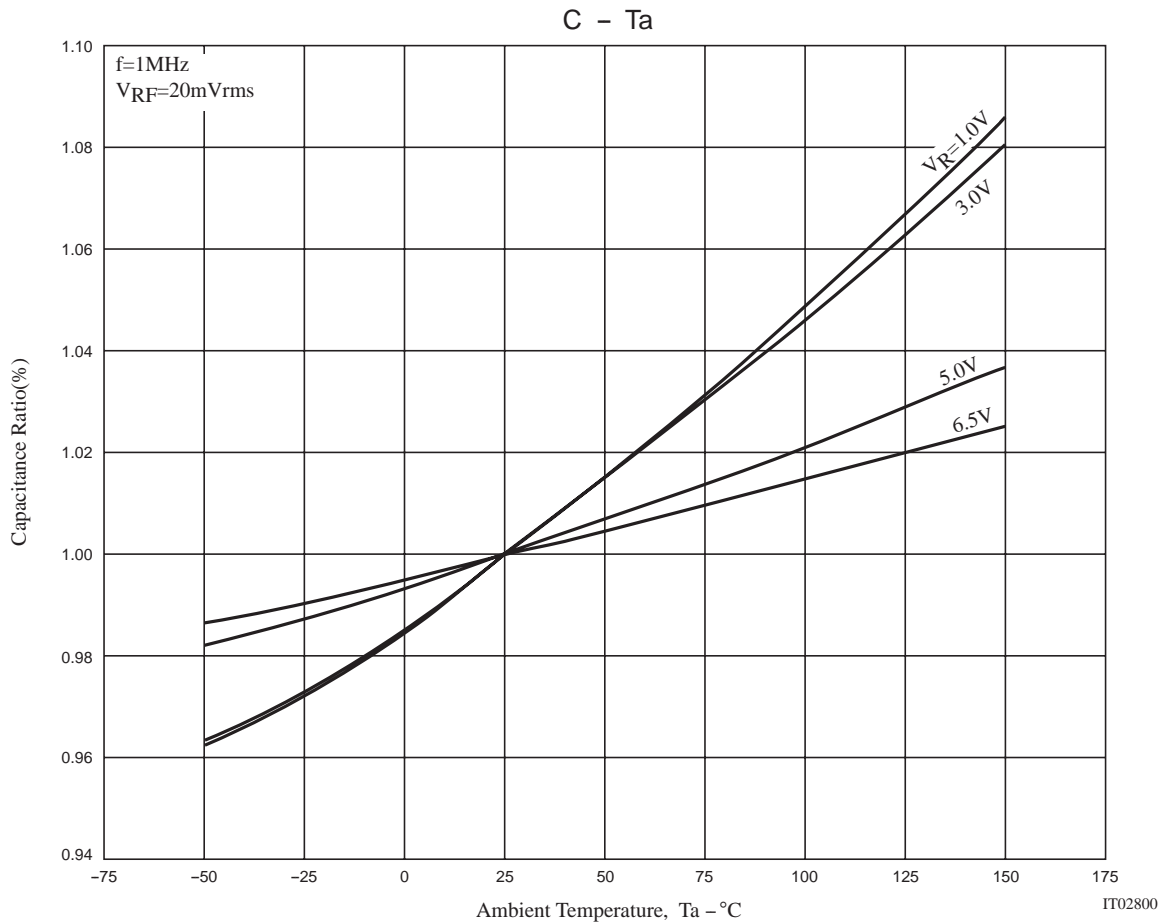
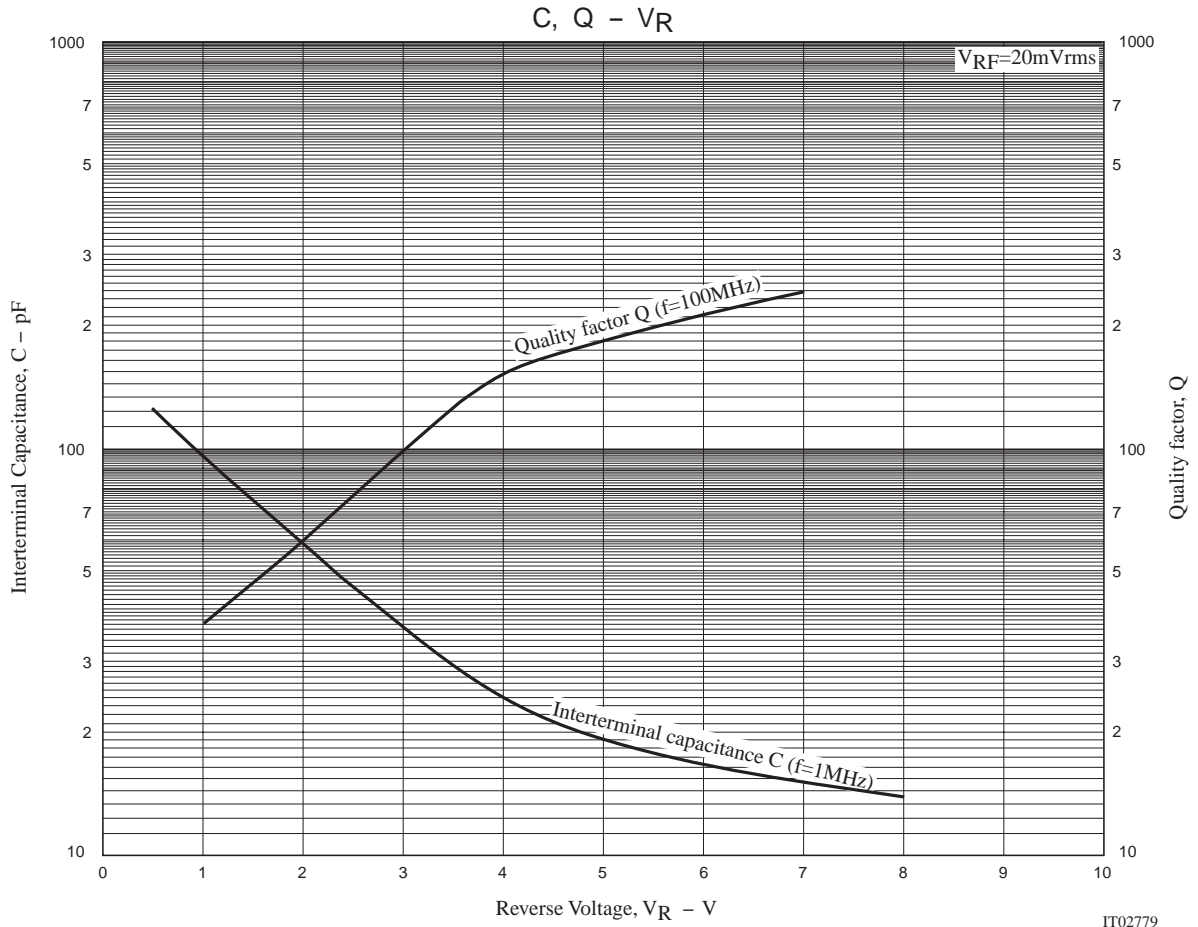
Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	$V_R$		16	V
Junction Temperature	$T_J$		125	$^\circ C$
Storage Temperature	$T_{stg}$		-55 to +125	$^\circ C$

Electrical Characteristics at  $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	$V(BR)_R$	$I_R=10\mu A$	16			V
Reverse Voltage	$I_R$	$V_R=10V$			50	nA
Interterminal Capacitance*	C1V	$V_R=1.0V, f=1MHz^*$	92.07		102.12	pF
	C3.0V	$V_R=3.0V, f=1MHz$	35.14		41.98	pF
	C6.5V	$V_R=6.5V, f=1MHz$	14.44		16.84	pF
Quality Factor	Q	$V_R=3.0V, f=100MHz$	70			
Capacitance Ratio	CR	C1.0V / C6.5V	5.0			
Matching Tolerance	$\Delta C_m$	$V_R=1.0V, 3.0, 6.5, f=1MHz (C_{max}-C_{min}) / C_{min} \times 100$			3.0	%

Note)\* : Capacitance value per each diode. \* : 1MHz signal : 20mVrms  
Marking : ZV

SVC236



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