Ordering number : ENN6513

Diffused Junction Silicon Diode

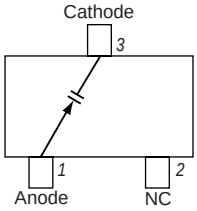
SVC221

Varactor Diode for FM Receiver Electronic Tuning Use

Features

- Very small package facilitates miniaturization in end products.
- Since shipment in tape reel packing is available, automatic insertion is supported.
- High Q.
- Guaranteed matching to 4.0% at V_R=2V.

Electrical Connection

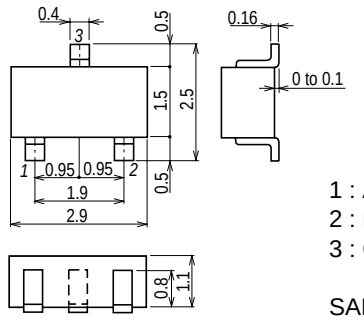


Package Dimensions

unit : mm

1148A

[SVC221]



1 : Anode
2 : No Contact
3 : Cathode

SANYO : CP

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Reverse Voltage	V_R		16	V
Junction Temperature	Tj		125	°C
Storage Temperature	Tstg		–55 to +125	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings		Unit
			min	max	
Breakdown Voltage	$V_{(BR)R}$	I_R=10μA	16		V
Reverse Current	I_R	V_R=10V		50	nA
Interterminal Capacitance	C_{2V}	V_R=2.0V, f=1MHz ❋	20.80	24.80	pF
	C_{8V}	V_R=8.0V, f=1MHz	12.00	15.00	pF
Quality Factor	Q	V_R=3.0V, f=100MHz	100		
Capacitance Ratio	CR	$C_{2.0V}$ / $C_{8.0V}$	1.65	1.75	
Matching Tolerance	ΔCm	V_R=2.0V, f=1MHz (Cmax – Cmin) / Cmin×100		4.0	%

Note : Matching Tolerance is valid for the devices in each taping reel.

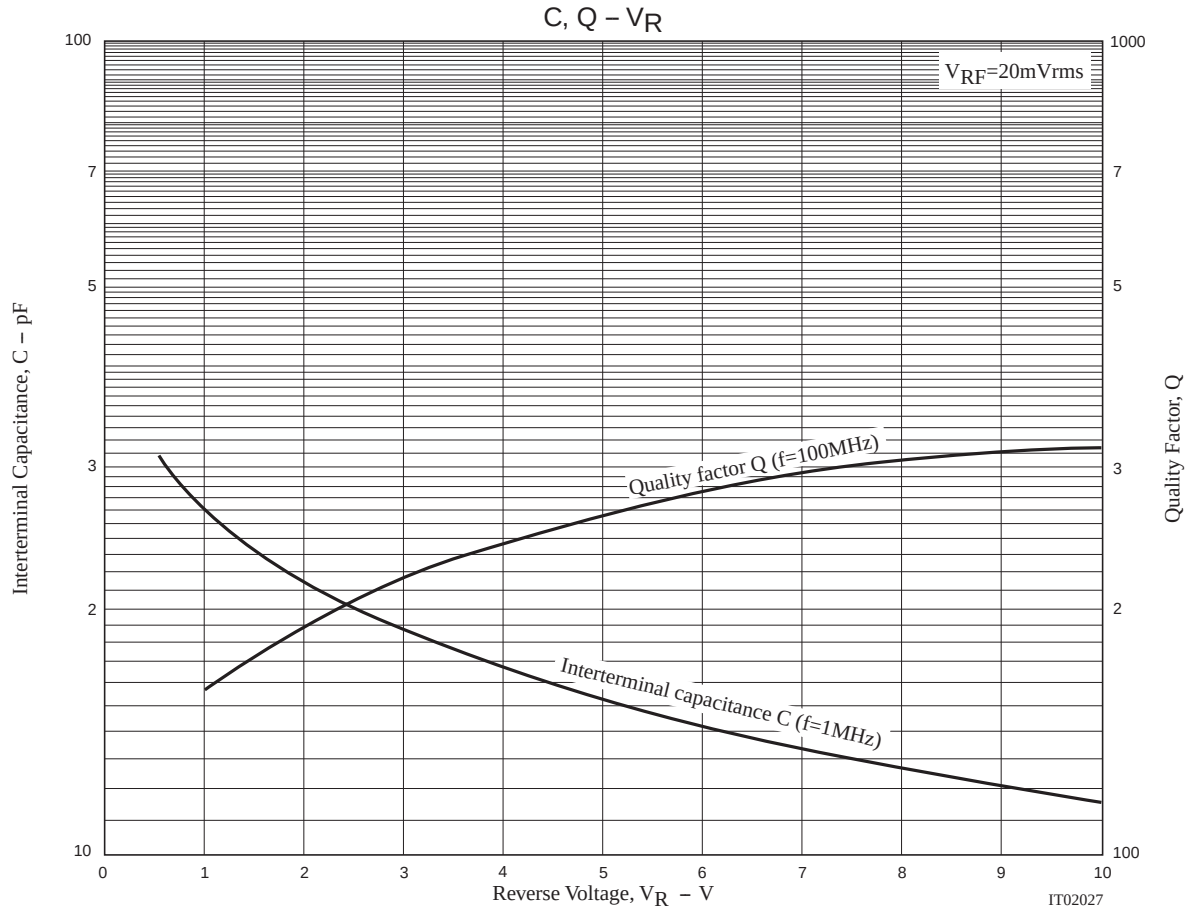
❋ : 1MHz signal : 20mVrms

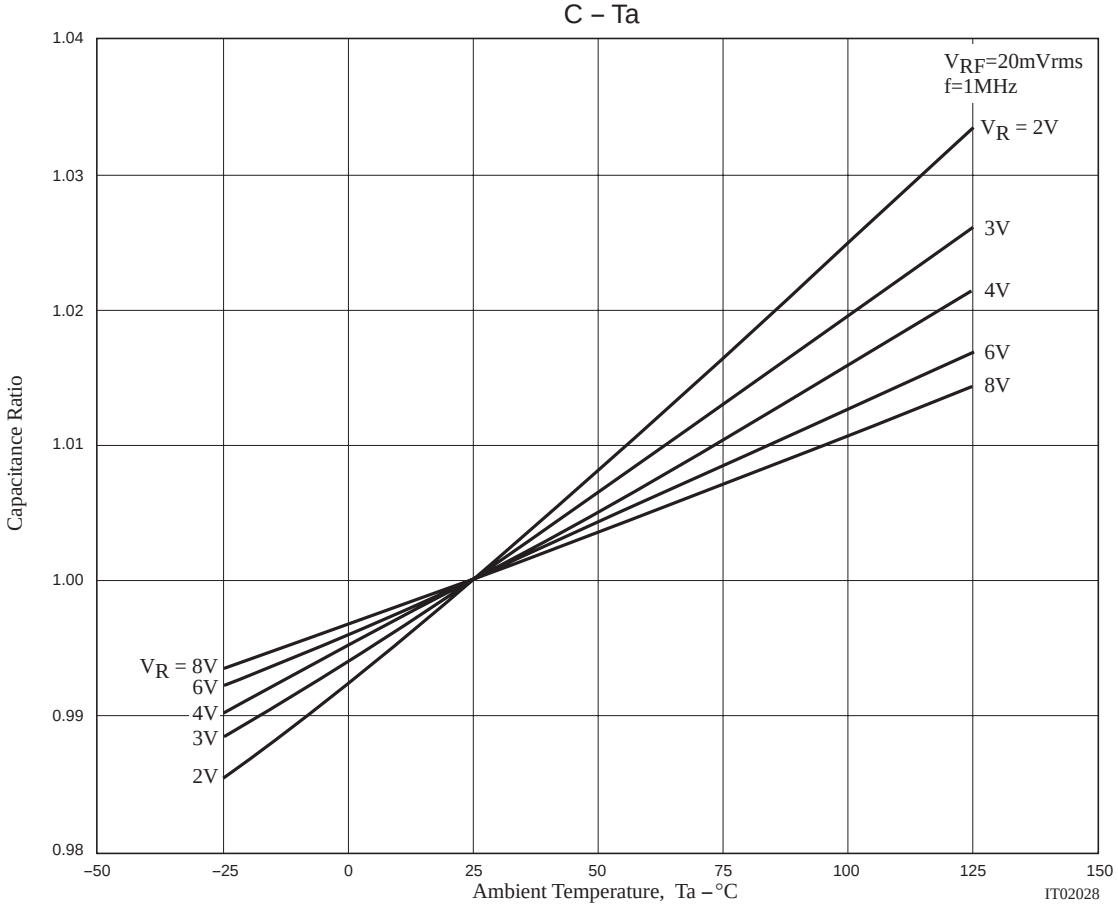
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SANYO Electric Co.,Ltd. Semiconductor Company

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C, Q – V_R
V_{RF}=20mVrms
Quality factor Q (f=100MHz)
Interterminal capacitance C (f=1MHz)
Interterminal Capacitance, C – pF
Quality Factor, Q
Reverse Voltage, V_R – V
IT02027


C – Ta
V_{RF}=20mVrms
f=1MHz
V_R = 2V
3V
4V
6V
8V
V_R = 8V
6V
4V
3V
2V
Capacitance Ratio
Ambient Temperature, Ta – °C
IT02028

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