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Ordering number :EN501H

SVC201SPA, 201Y

Duffused Junctions Type Sillicon Diode

Varactor Diode (IOCAP)
for FM Receiver Electronic Tuning

Features

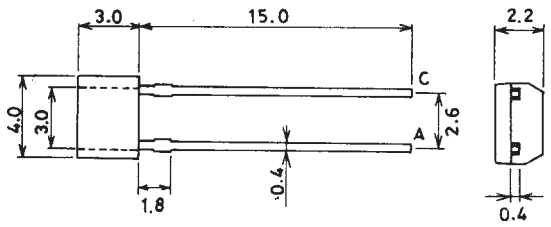
- The SVC201SPA, 201Y are varactor diodes of hyper abrupt junction structure fabricated with ion implantation technology. It is intended for use in FM receiver electronic tuning applications.
  - Capable of being operated from a low voltage (Voltage range:1 to 9V)
  - High Q
  - High Capacitance raito
  - Uniform capacistance-voltage characteristic provided diode to be used in combination.

Package Dimensions

unit:mm

1184

[SVC201SPA]



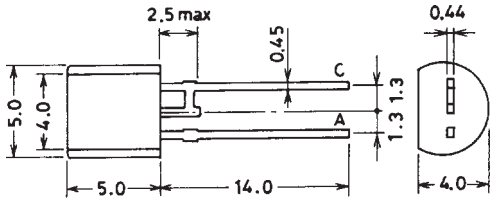
C:Cathode
A:Anode

SANYO:SPA

unit:mm

1010A

[SVC201Y]



C:Cathode
A:Anode

Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Voltage	V_R		–16	V
Junction Temperature	Tj		100	˚C
Storage Temperature	Tstg		–55 to +100	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Breakdown Voltage	$V_{(BR)R}$	I_R=–10μA	–16			V
Reverse Current	I_R	V_R=–9V			–50	nA
Interterminal Capacitance	$C_{1.6V}$	V_R=–1.6V, f=1MHz	28.19		37.45	pF
	$C_{3.5V}$	V_R=–3.5V, f=1MHz	19.04		24.33	pF
	$C_{5.0V}$	V_R=–5.0V, f=1MHz	14.48		18.49	pF
	$C_{7.5V}$	V_R=–7.5V, f=1MHz	10.17		12.99	pF
Capacitance Raito	CR	$C_{1.6V}/C_{7.5V}$	2.2		3.7	
Series Resistance	r_s	f=50MHz ,V_R=–1V			0.6	Ω
Matching Tolerance	ΔC_m	$(C_{max}–C_{min})/C_{min}$			0.05	

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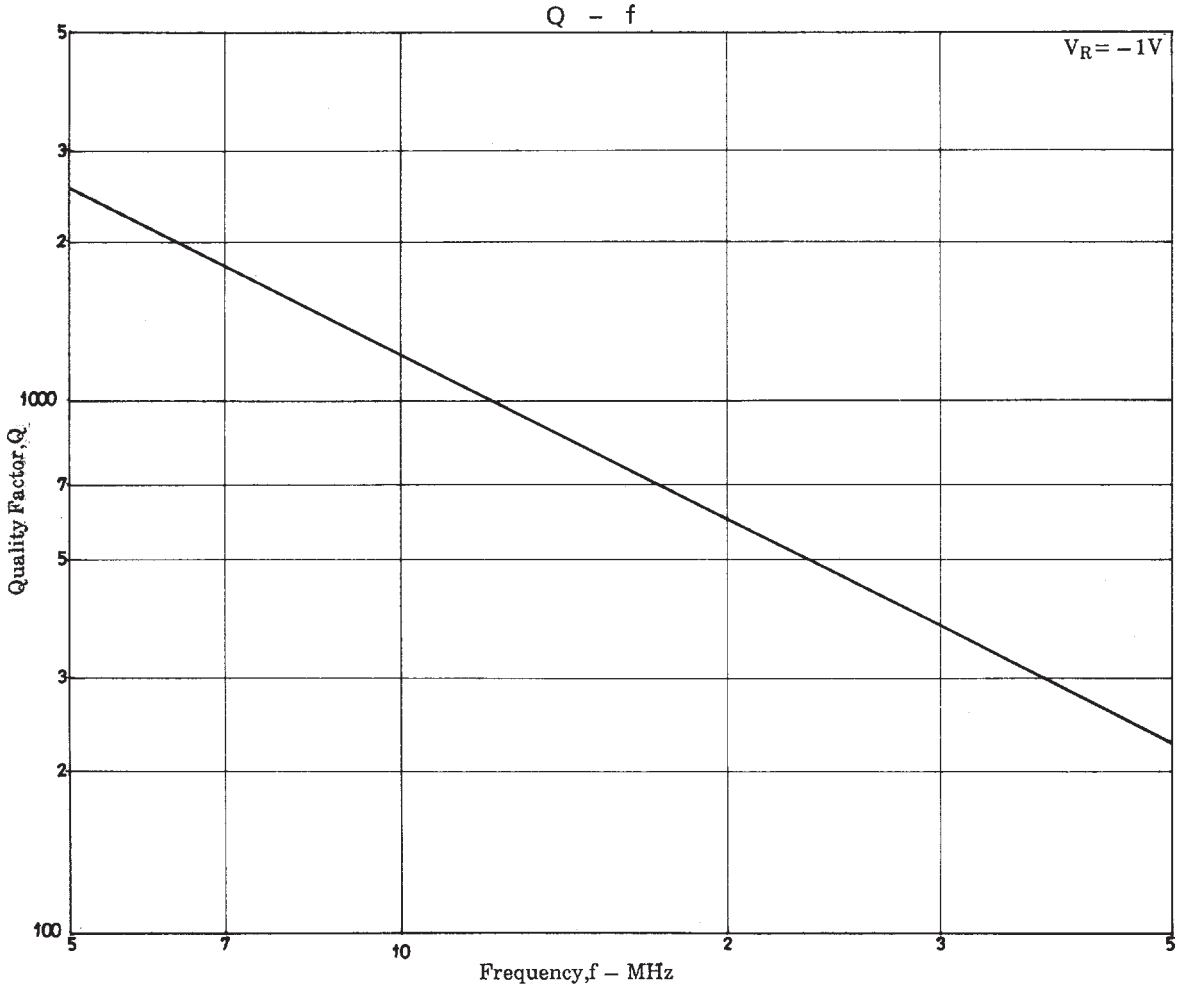
◆ Address and Capacitance Value

TEST POINT	C 1.6V		C 3.5V		C 5.0V		C 7.5V	
	Address	Capacitance (pF)	Address	Capacitance (pF)	Address	Capacitance (pF)	Address	Capacitance (pF)
CAPACITANCE VALUE	38	[37.45 35.67	27	[24.33 23.17	20	[18.49 17.61	11	[12.99 12.37
	37	[36.01 34.30	26	[23.39 22.28	19	[17.78 16.93	10	[12.50 11.90
	36	[34.63 32.98	25	[22.49 21.42	18	[17.09 16.28	9	[12.01 11.44
	35	[33.30 31.71	24	[21.63 20.60	17	[16.43 15.65	8	[11.54 10.99
	34	[32.02 30.50	23	[20.80 19.81	16	[15.81 15.05	7	[11.11 10.58
	33	[30.79 29.32	22	[20.00 19.04	15	[15.20 14.48	6	[10.68 10.17
	32	[29.60 28.19						



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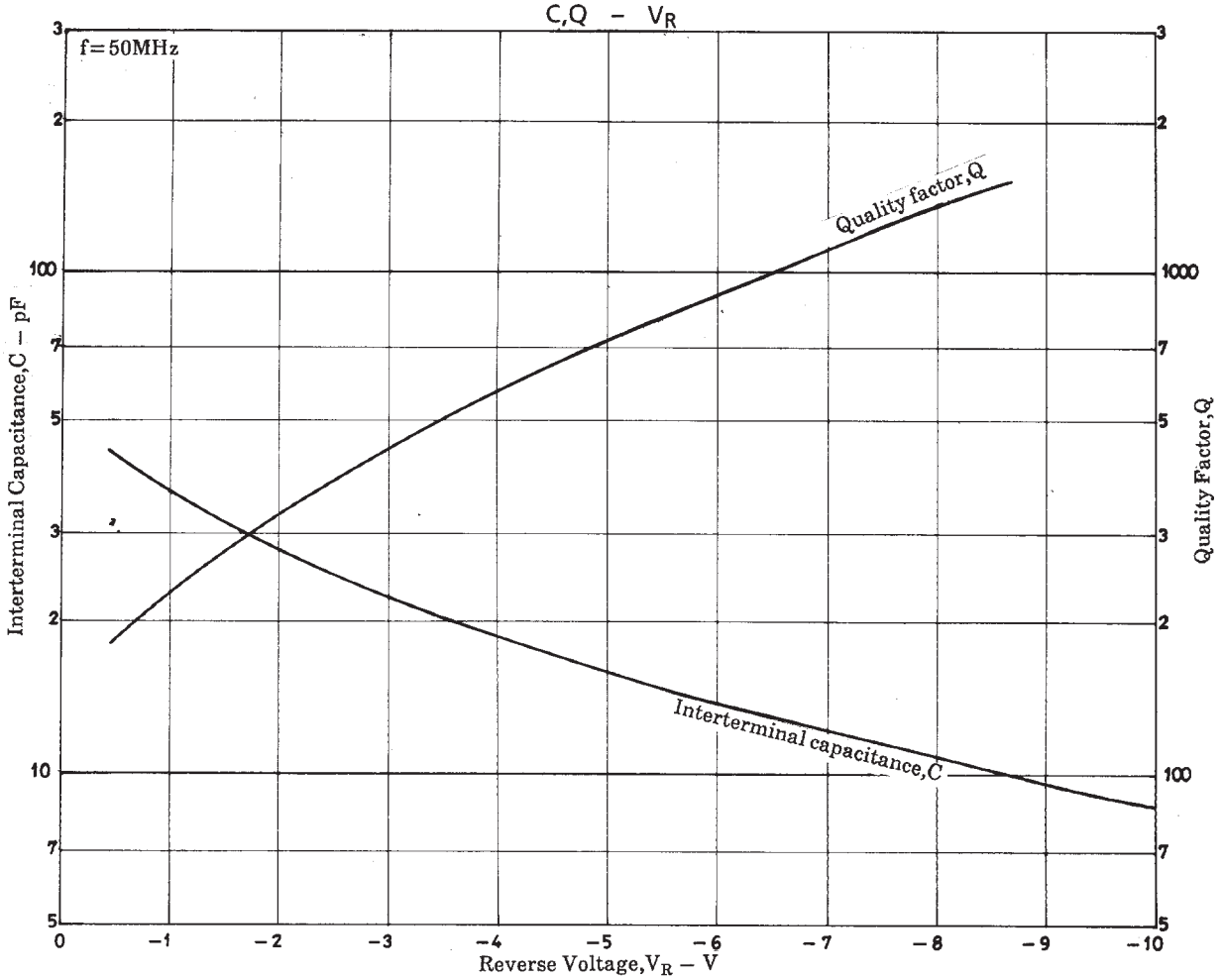
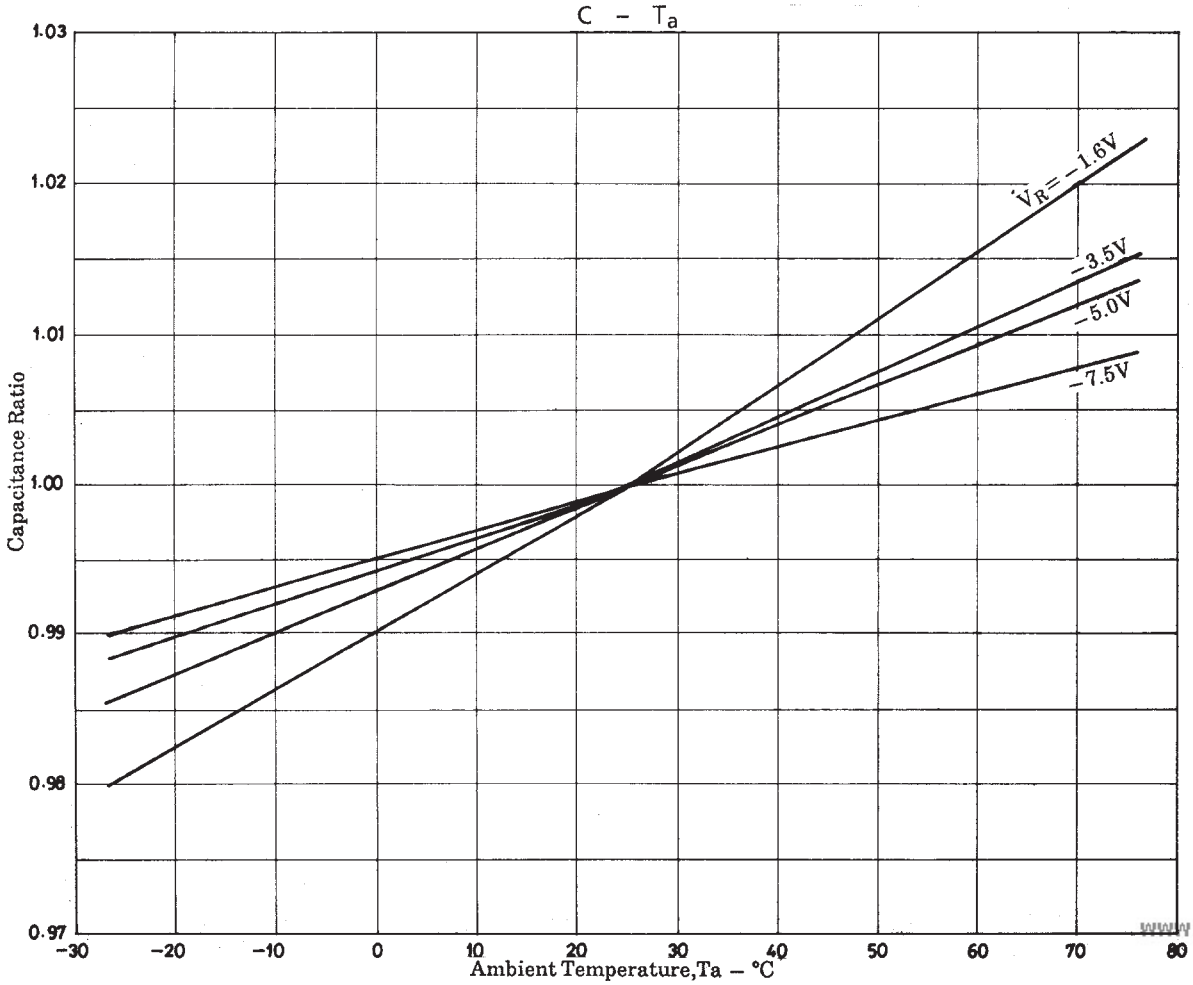
C,Q – V_R



C – T_a



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