



SVC202SPA

Varactor Diode (IOCAP) for FM Receiver Electronic Tuning

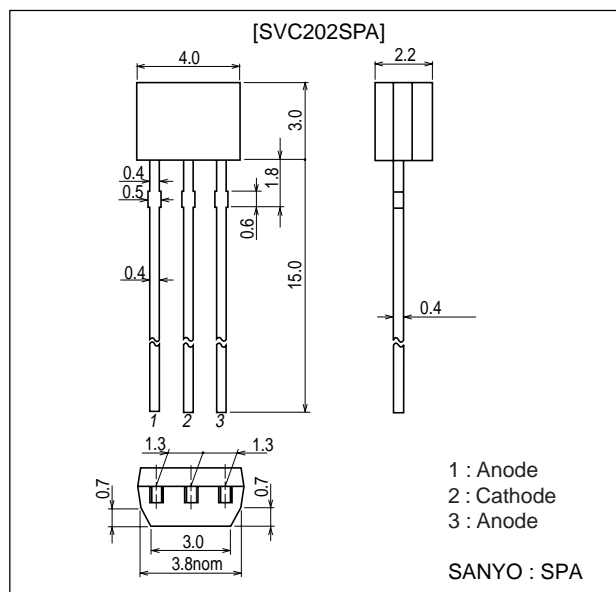
Features

- Twin type FM electronic tuning-use varactor diode which excels in large input characteristics.

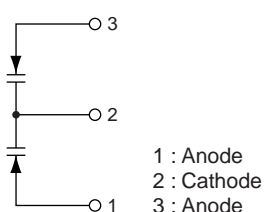
Package Dimensions

unit : mm

1129A



Electical Connection



Specifications

Absolute Maximum Ratings at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|----------------------|-----------|------------|-------------|------|
| Reverse Voltage | V_R | | 16 | V |
| Junction Temperature | T_j | | 100 | °C |
| Storage Temperature | T_{stg} | | -55 to +100 | °C |

Electrical Characteristics at Ta=25°C

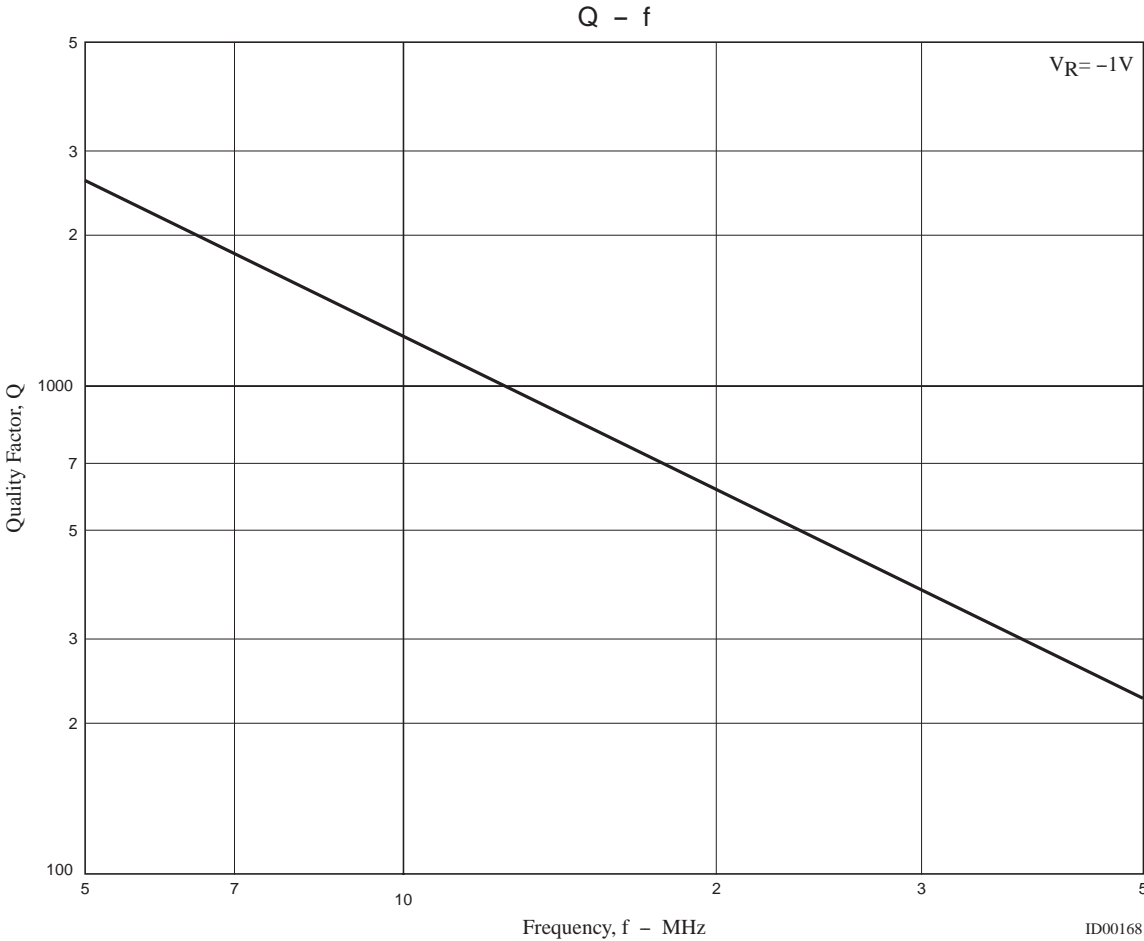
| Parameter | Symbol | Conditions | Ratings | | | Unit |
|----------------------------|--------------|---------------------------------|---------|-----|-------|----------|
| | | | min | typ | max | |
| Breakdown Voltage | $V_{(BR)R}$ | $I_R=10\mu A$ | 16 | | | V |
| Reverse Current | I_R | $V_R=9V$ | | | 50 | nA |
| Interterminal Capacitance* | C1.6V | $V_R=1.6V, f=1MHz$ | 28.19 | | 37.45 | pF |
| | C3.5V | $V_R=3.5V, f=1MHz$ | 19.04 | | 24.33 | pF |
| | C5.0V | $V_R=5.0V, f=1MHz$ | 14.48 | | 18.49 | pF |
| | C7.5V | $V_R=7.5V, f=1MHz$ | 10.17 | | 12.99 | pF |
| Capacitance Ratio | CR | $C_{1.6V} / C_{7.5V}, f=1MHz$ | 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 | |

Note)* : Capacitance value of one diode

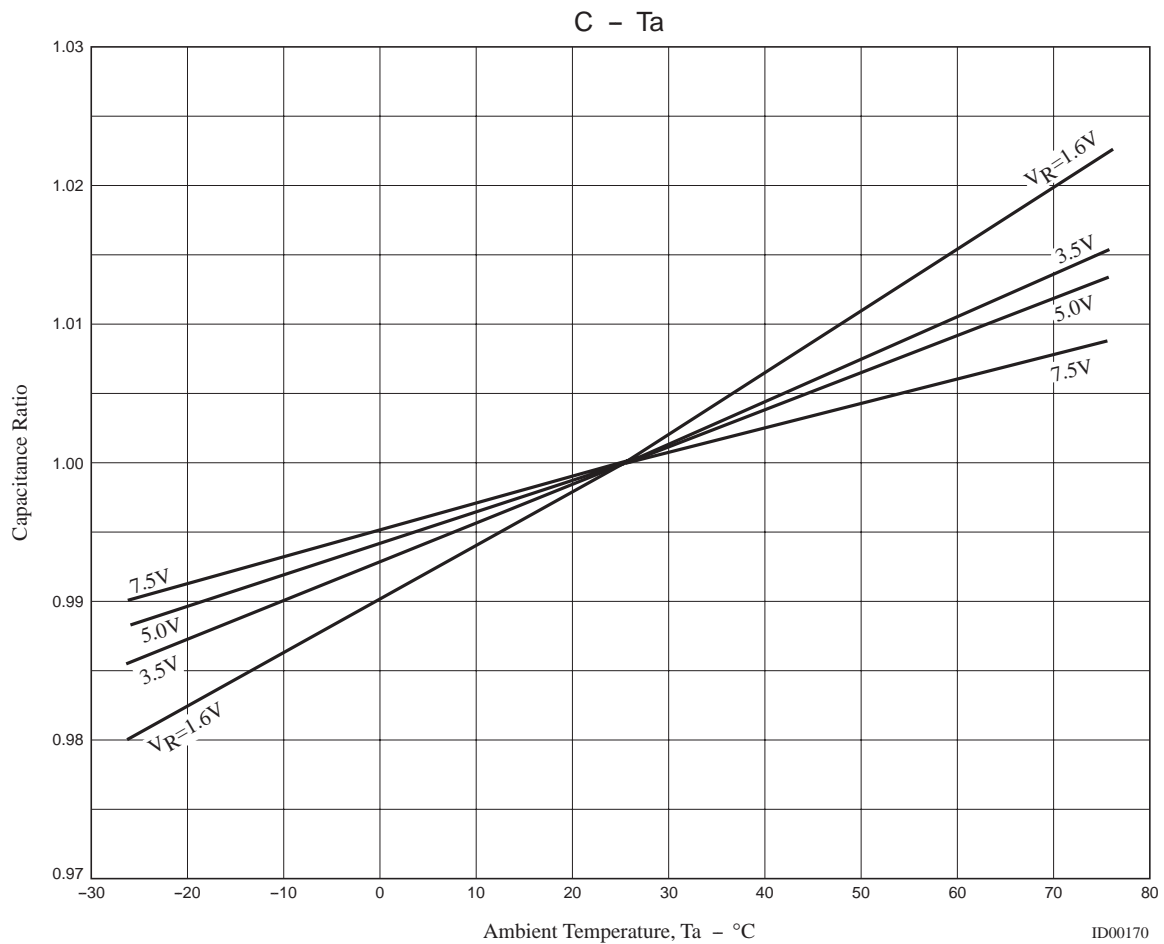
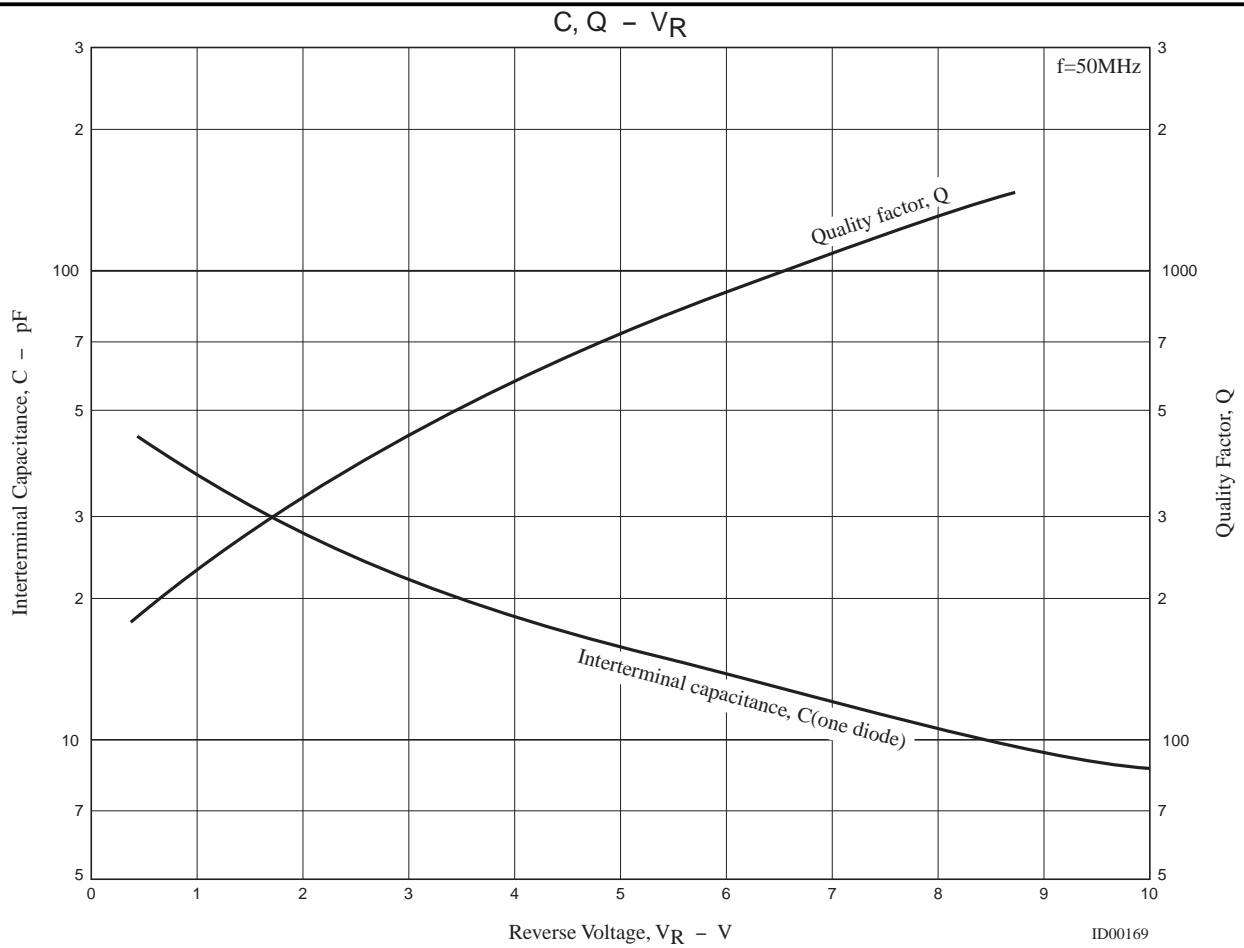
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Address and Capacitance Value (one diode)

| 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 | | | | | | |



SVC202SPA



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