



SVC363

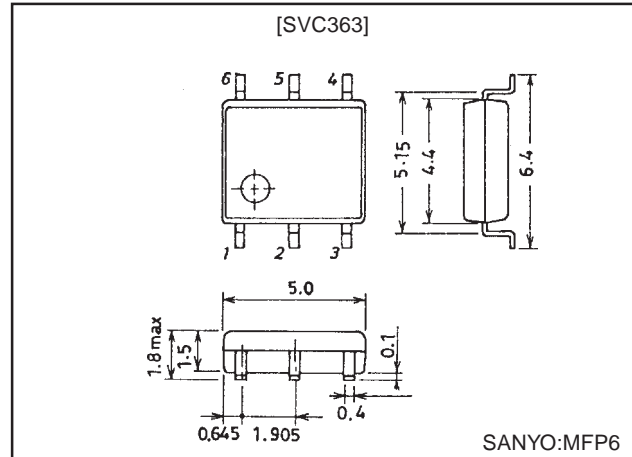
Diffused Junction Type Silicon Diode Composite Varactor Diode for AM Receiver Low-Voltage Electronic Tuning Use

Features

- Excellent matching characteristics because of composite type.
- The number of manufacturing processes can be reduced and automatic mounting is possible because of composite type.
- High capacitance ratio and high quality factor.
- Possible to offer the SVC363 devices in a tape reel packaging.
- Surface mount type.

Package Dimensions

unit:mm
1214B



Specifications

Absolute Maximum Ratings at Ta = 25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|----------------------|-----------|------------|-------------|------|
| Reverse Voltage | V_R | | 16 | V |
| Junction Temperature | T_J | | 125 | °C |
| Storage Temperature | T_{stg} | | -55 to +125 | °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 (One diode) | I_R | $V_R=9V$ | | | 100 | nA |
| Interterminal Capacitance (Average) | C_{1V} | $V_R=1V, f=1MHz^*1$ | 428.0* | | 500.0* | pF |
| | C_{6V} | $V_R=6V, f=1MHz$ | | 52.0 | | pF |
| | C_{8V} | $V_R=8V, f=1MHz$ | 20.5 | | 27.0 | pF |
| Quality Factor | Q | $V_R=1V, f=1MHz$ | 200 | | | |
| Capacitance Ratio | CR | $C_{1V}/C_{8V}, f=1MHz$ | 17.5 | | 24.5 | |
| Matching Tolerance | ΔC_m^*2 | $V_R=1V$ to $8V, f=1MHz$ | | | ± 2.5 | % |

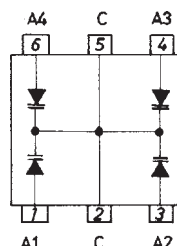
Note)*1:1MHz signal:20mVrms.

Note)*2: $\Delta C_m = (C_{Dn} - C_{D3}) / C_{D3} \times 100$

Note)*:The SVC363 is classified by C_{1V} as follows:

| Rank | C_{1V} (pF) |
|------|----------------|
| K | 428.0 to 456.5 |
| L | 447.5 to 478.0 |
| M | 468.5 to 500.0 |

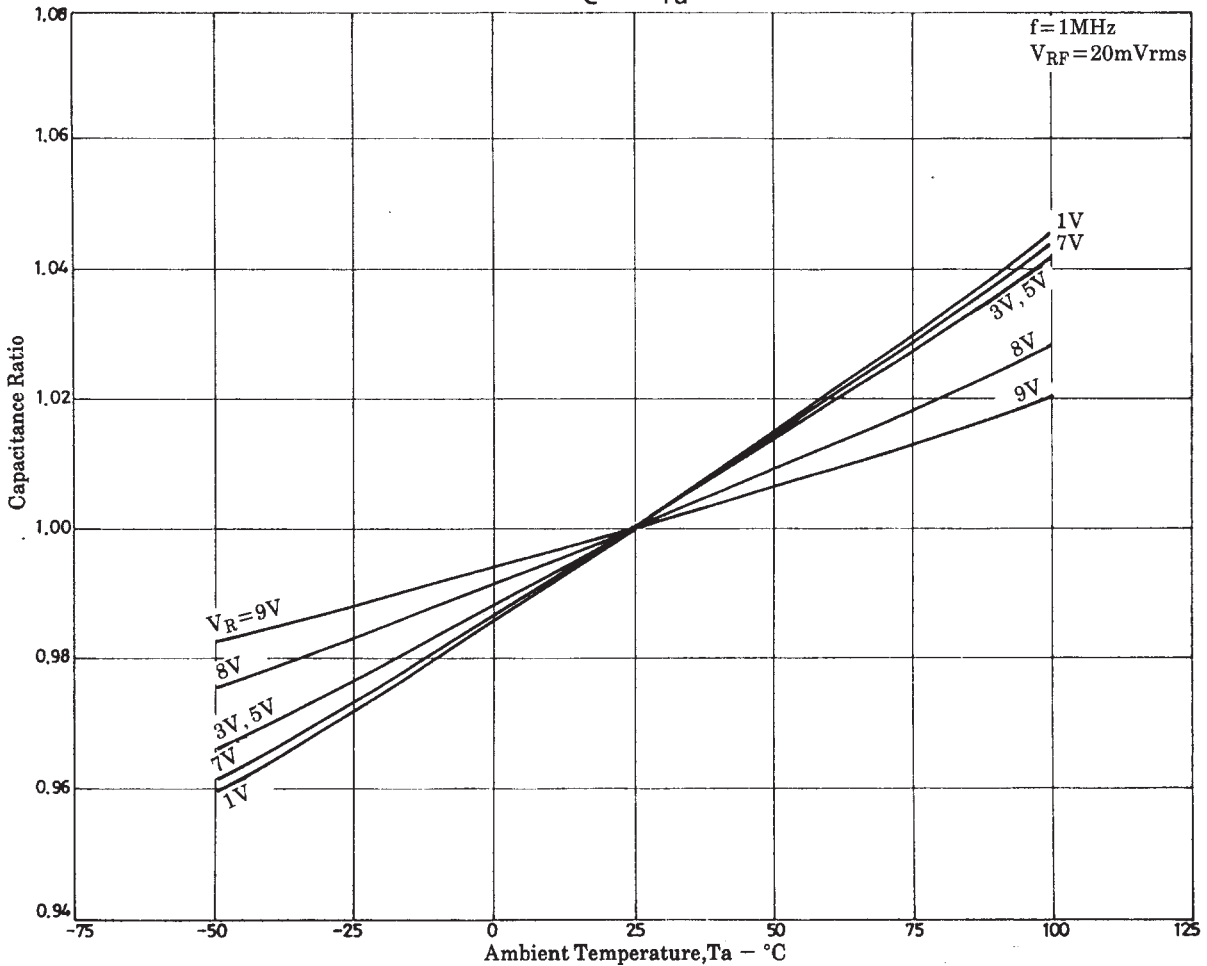
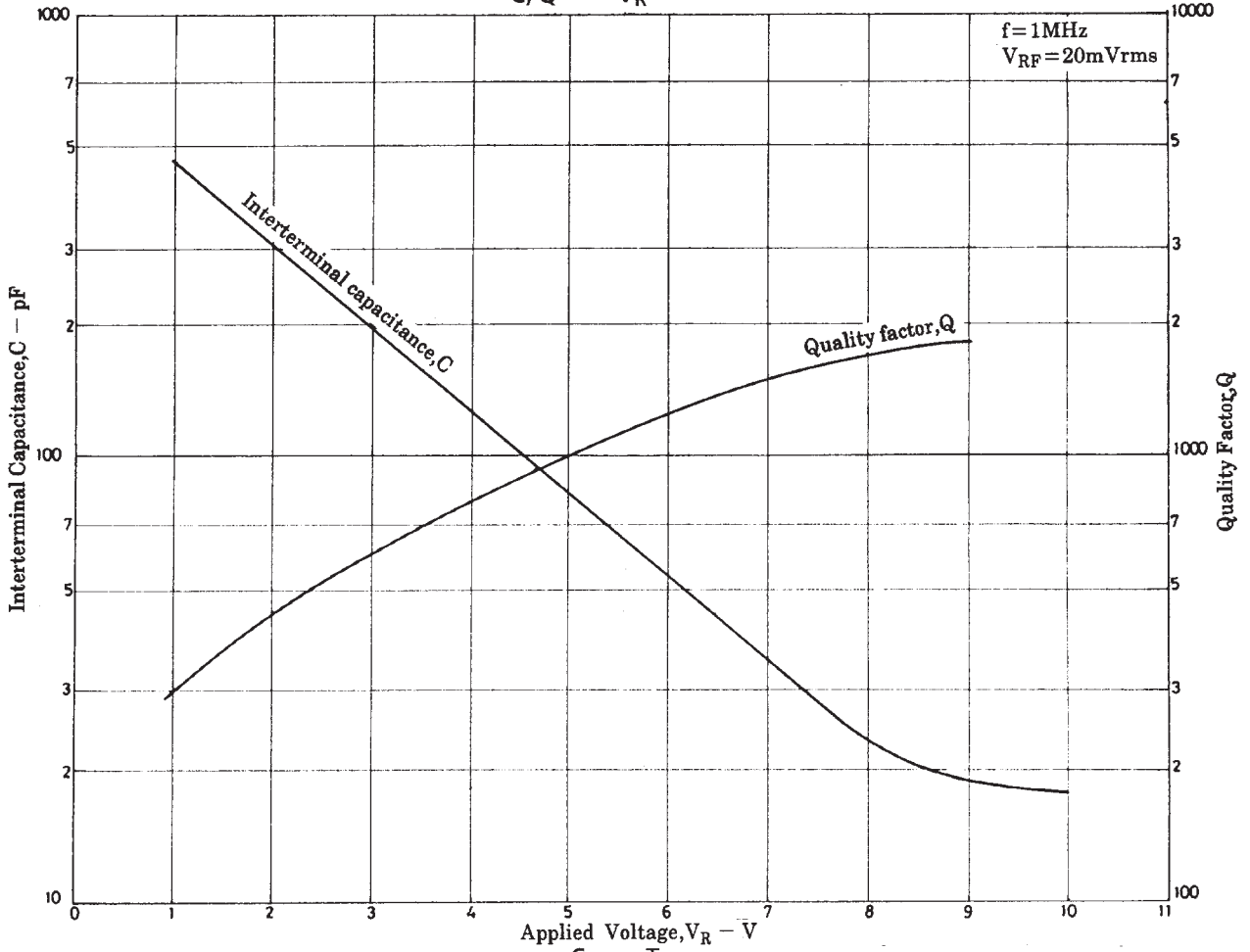
Electrical Connection



A:Anode
C:Cathode

SVC363

C, Q - V_R



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