

**SVC363**

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

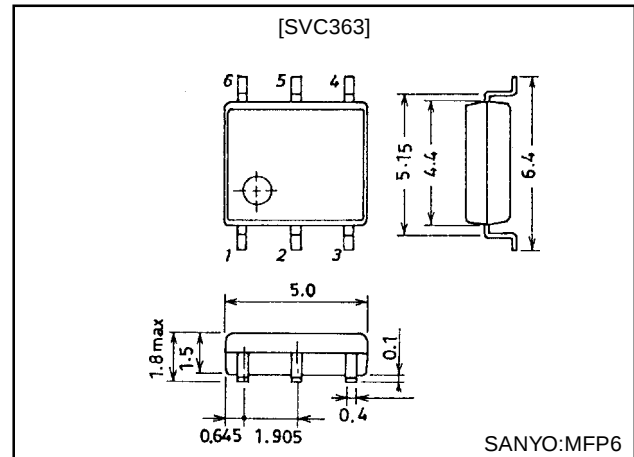
### Features

- 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

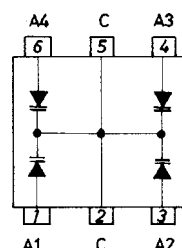
| Parameter                           | Symbol          | Conditions               | Ratings |      |           | Unit |
|-------------------------------------|-----------------|--------------------------|---------|------|-----------|------|
|                                     |                 |                          | 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                  | $\Delta C_m^*2$ | $V_R=1V$ to $8V, f=1MHz$ |         |      | $\pm 2.5$ | %    |

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 |

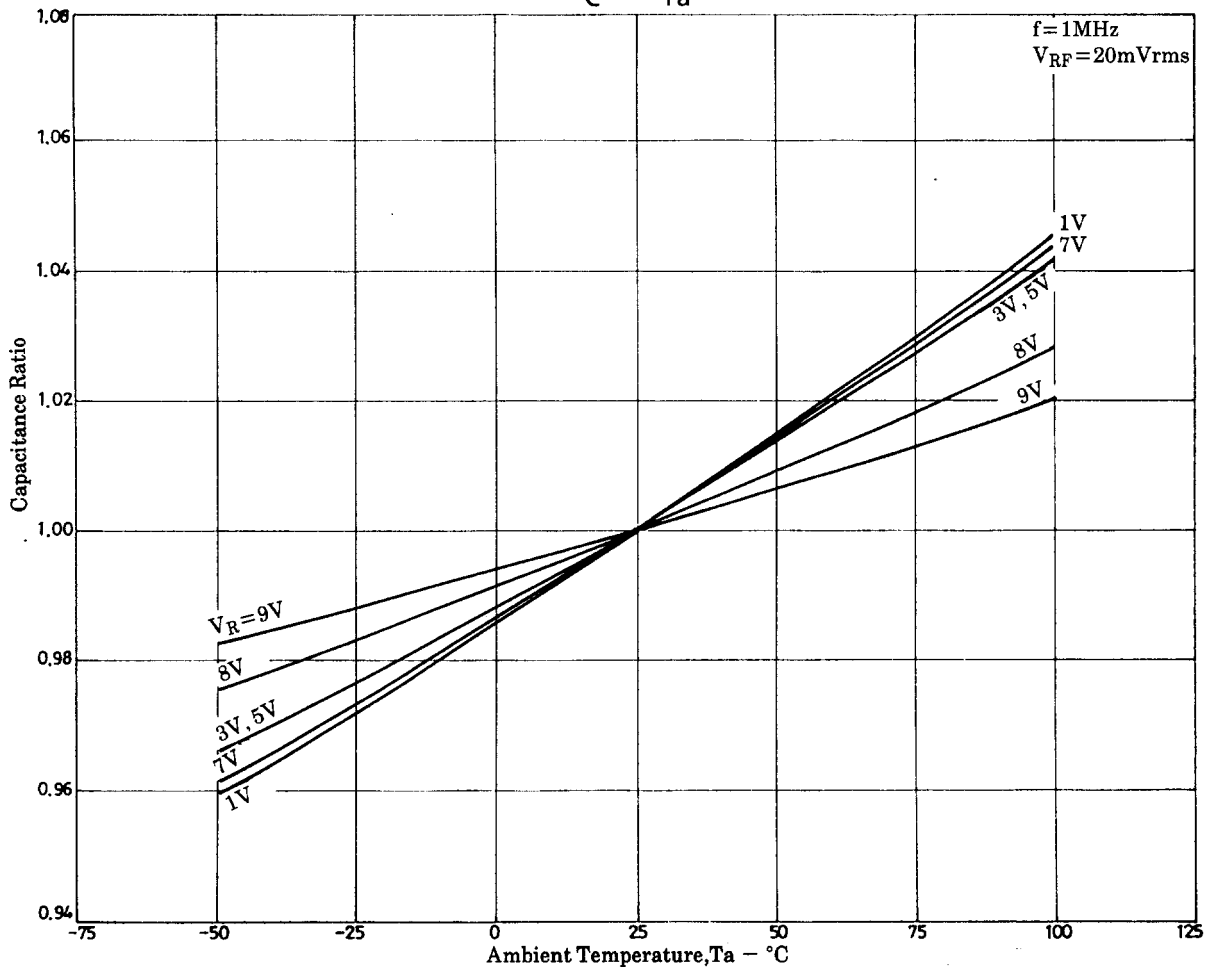
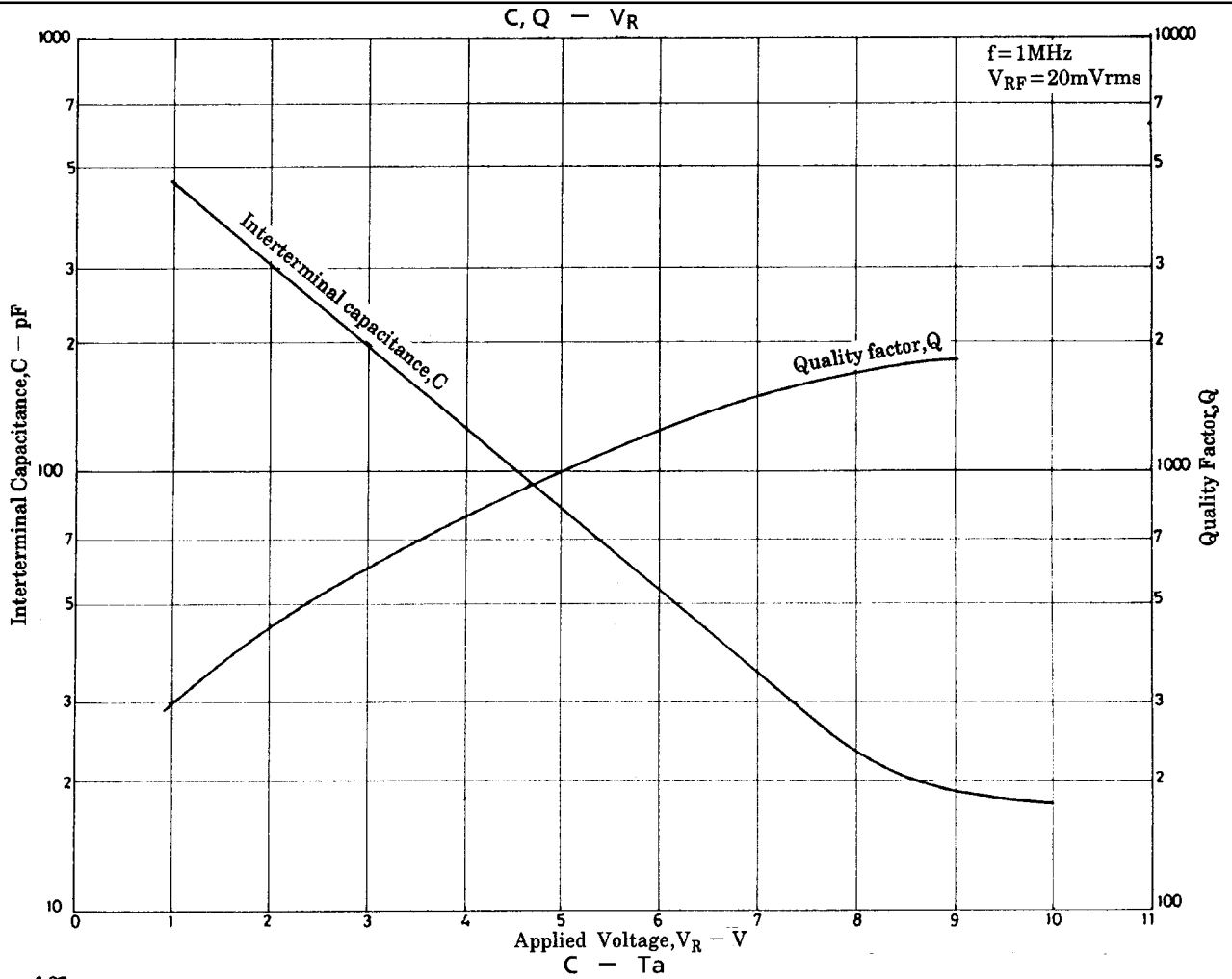
### Electrical Connection

A:Anode  
C:Cathode
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