SVC704

ON Semiconductor®

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Varactor Diode Single Varactor Diode for VCO 16V, 50nA, CR=6.0, r_S=0.8Ω, MCPH3

Features

- High capacitance ratio (VR=1.0 to 7.0V)
- · Small-sized package
- · Low series resistance

Specifications

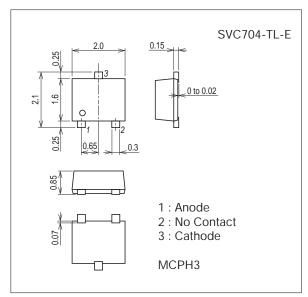
Absolute Maximum Ratings at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|----------------------|--------|------------|-------------|------|
| Reverse Voltage | VR | | 16 | V |
| Junction Temperature | Tj | | 150 | °C |
| Storage Temperature | Tstg | | -55 to +150 | °C |

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions

unit : mm (typ) 7019A-001

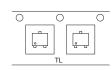


Product & Package Information

• Package : MCPH3

JEITA, JEDEC : SC-70, SOT-323
 Minimum Packing Quantity : 3,000 pcs./reel

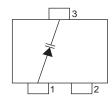
Packing Type: TL



Marking



Electrical Connection

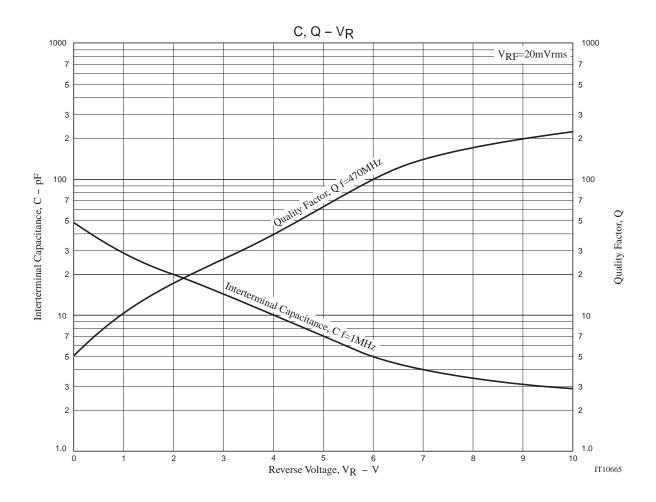


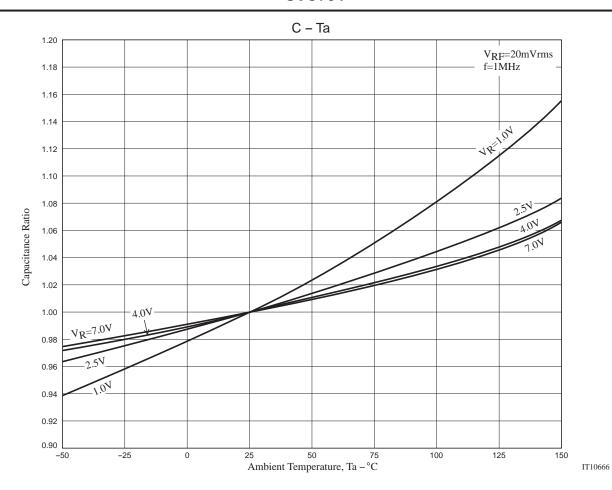
Electrical Characteristics at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|----------------------------|----------------|--------------------------------|---------|-----|------|-------|
| | | Conditions | min | typ | max | OTIIL |
| Breakdown Voltage | V(BR)R | I _R =10μA | 16 | | | V |
| Reverse Current | IR | V _R =10V | | | 50 | nA |
| Interterminal Capacitance* | C1.0V | V _R =1.0V, f=1MHz | 26.0 | | 30.0 | pF |
| | C7.0V | V _R =7.0V, f=1MHz | 3.4 | | 4.6 | pF |
| Series Resistance | r _S | V _R =1.0V, f=470MHz | | | 0.8 | Ω |
| Capacitance Ratio | CR | C1.0V / C7.0V | 6.0 | | | |

Ordering Information

| Device | Package | Shipping | memo | |
|-------------|---------|----------------|---------|--|
| SVC704-TL-E | MCPH3 | 3,000pcs./reel | Pb Free | |



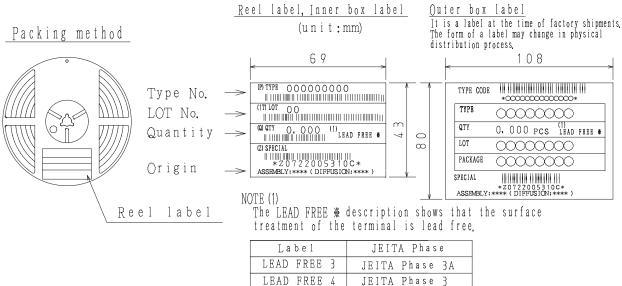


Taping Specification

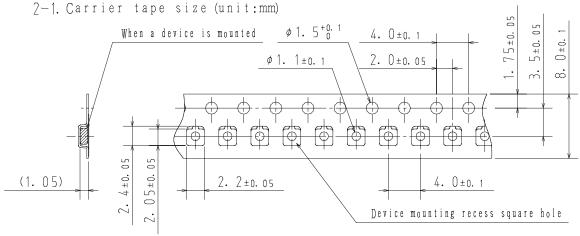
SVC704-TL-E

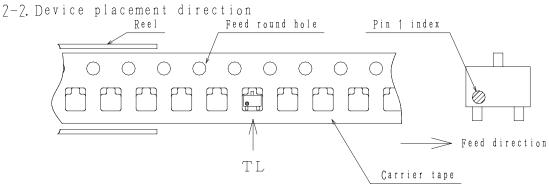
1. Packing Format

| Package Name | Carrier Tape | Maximun Number of devices contained (pcs) | | | Packing | f o r m a t |
|--------------|--------------|--|-----------|-----------|--------------------------|--------------------------|
| | Туре | Reel | Inner box | Outer box | Inner BOX (C-1) | Outer BOX (A-7) |
| мсрн3 | мсрн3 | 3,000 | 15, 000 | 90,000 | 5 reels contained | 6 inner boxes contained |
| | | | | | Dimensions:mm (external) | Dimensions:mm (external) |
| | | | | | 183×72×185 | 440×195×210 |



2. Taping configuration





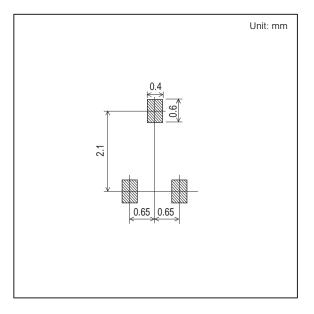
Those with pin 1 index on the feed hole side·····TL

Outline Drawing

SVC704-TL-E

Mass (g) Unit 0.007 For reference mm 2.040.06 3.15^{40.1} 2.040.06 3.3^{40.1} 2.040.06 3.3^{40.1} 2.040.06 3.3^{40.1} 3.05^{40.1} 3.15^{40.1} 3.1

Land Pattern Example



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