

VARIABLE-CAPACITANCE DIODES (IOCAP)

Low-voltage and high-voltage variable capacitance diodes are available for both of AM electronic tuning use and FM electronic tuning use.

Features

- * High capacitance ratio
 - * Good linearity
 - * Small-sized package
 - * Single type and twin type available
 - * High Q
- ◆ $\Delta C_m = \frac{C_{max} - C_{min}}{C_{min}} \times 100$. ★ $\Delta C_m = \frac{C_{Dn} - C_{D3}}{C_{D3}} \times 100$.

AM Electronic Tuning Use (Ta=25°C)

| Type No. ():Marking | Package | Absolute Maximum Ratings V _R (V) | Electrical Characteristics | | |
|-------------------------|-------------|------------------------------------------------|----------------------------|----------------------------|------------------------------|
| | | | V _R (V) | C (PF) min max | ΔC _m max (%) ◆ |
| SVC321SPA | SPA SPA' | 16 | 1.2 8 | 388.1~459.1 20.3~27.05 | 3 |
| SVC323 | SPA SPA' | 16 | 1 8 | 462.8~536.7 21.12~27.05 | 3 |
| SVC341(VA) | PCP | 16 | 1 9 | 423~503 17.5~23.5 | 2 |
| SVC342 | NP | 16 | 1 9 | 423~503 17.5~23.5 | 2 |
| SVC343(VC) SVC344 | PCP NP | 30 | 1 4.5 | 410~445 21~26 | 2 3 |
| SVC345(VB) SVC346 | PCP NP | 33 | 1 6.5 | 460~540 21~27 | 2 |
| SVC352 | SIP5 | 16 | 1 8 | 460~540 21~27 | ★ ± 2.5 |
| SVC353 SVC354 | MFP6 | 16 | 1 6 | 460~540 21~27 | ★ ± 2.5 ★ ± 2.5 |
| SVC363 SVC364 | | | 1 8 | 428~500 20.5~27 | ★ ± 2.5 ★ ± 2.5 |
| SVC371 | SOP8 | 16 | 1 8 | 460~540 19~26 | 2.5 |

FM Electronic Tuning Use (Ta=25°C)

| Type No. ():Marking | Package | Absolute Maximum Ratings V _R (V) | Electrical Characteristics | | |
|-------------------------|---------|------------------------------------------------|----------------------------|----------------------------|------------------------------|
| | | | V _R (V) | C (PF) min max | ΔC _m max (%) ◆ |
| SVC201SPA | SPA' | 16 | 1.6 7.5 | 28.19~37.45 10.17~12.99 | 5 |
| SVC202SPA | SPA | 16 | 1.6 7.5 | 28.19~37.45 10.17~12.99 | 5 |
| SVC203SPA | SPA | 16 | 3 8 | 36.92~43.03 12.64~16.84 | 3 |
| SVC203CP(AV) | CP | 16 | 1 9 | 58.8~65.98 10.84~13.4 | 6.5 11.8 |
| SVC208(AV) | CP | 16 | 3 8 | 36.92~43.03 12.77~16.84 | 3 |
| SVC211SPA | SPA | 32 | 3 25 | 37~42 14.8~18.2 | - |
| SVC212(Y) | CP | 16 | 2 8 | 43~47.5 24.5~28.8 | - |
| SVC253(NV) | CP | 16 | 1 9 | 51~76 9.5~15.5 | - |

Other Use (FM, AFC, telephone, CB transceiver) (Ta=25°C)

| Type No. | Package | Absolute Maximum Ratings V _R (V) | Electrical Characteristics | | |
|-------------------------|-----------|------------------------------------------------|----------------------------|-------------------|------------------------------|
| | | | V _R (V) | C (PF) min max | ΔC _m max (%) ◆ |
| SVC251SPA SVC252(HV) | SPA CP | 12 16 | 1.6 5 | 23 ~ 38 19 | 0.6 |

Pin Diodes (for VHF, UHF, AGC) (Ta=25°C)

except PCP with C=0.7PF(Typ)

All products are with V_R=50V, C=23PF(Typ.) except CP(1SV272) with C=0.6PF(Typ)

| Type No. | Connect-ion type | r s (typ) | | | | |
|------------|------------------|--------------------------------------------|--------------------------|--------------------------|------------|--------------------------------|
| | | Conditions: I _F =10mA, f=100MHz | | | | I _F =50mA, f=470MHz |
| | | 2.5 Ω | 3.5 Ω | 5 Ω | 7.5 Ω | 0.5 Ω |
| MCP Series | Single | 1SV263(JV) 1SV264(KV) | 1SV248(FV) 1SV249(GV) | 1SV247(BV) 1SV246(CV) | | For antenna SW |
| CP Series | Single | 1SV266(JV) 1SV267(KV) | 1SV250(FV) 1SV251(GV) | 1SV233(BV) 1SV234(CV) | 1SV294(PV) | 1SV272(MV) |
| CP5 | Parallel | 1SV265(LV) | | 1SV241(EV) | | |
| PCP | Single | | | | | 1SV268(VD) |

These specifications are subject to change without notice.

Case Outlines(unit:mm)
For package pins, see a catalog.

SANYO:MCP
1: Anode
2: Cathode
3: Anode/Cathode

SANYO:CP
1: Anode, 2: NC, 3: Cathode
2: Anode/Cathode

SANYO:CP5
1, 2: Cathode, 3, 5: Anode
4: NC

SANYO:SPA
1, 3: Anode, 2: Cathode

SANYO:SPA'
1, 3: Anode, 2: Cathode

SANYO:SIP5

SANYO:NP
1, 3: Anode, 2: Cathode

SANYO:SOP8

SVC341, SVC342, SVC343,
SVC344, SVC345, SVC346.

SVC352

SVC353

SVC354

SVC363

SVC364

SVC371

