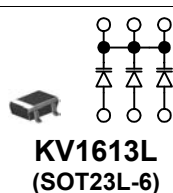
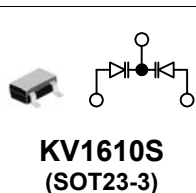
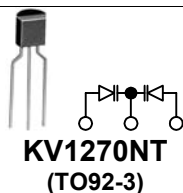


8V series variable capacitance diode for AM tuning

8V系AMチューナ用電圧可変容量ダイオード



FEATURES

- Included Twin Element: KV1270NT, KV1610S
- Included Cathode-common Triple Element: KV1613L
- Excellent Matching Between Elements
- Excellent Linearity of The CV Curve
- High Q: Q=200 to
- Extra Large Capacitance Ratio: Q=17.0 / 18.5 to
- ツインタイプ素子1組搭載: KV1270NT, KV1610S
- カソードコモン3素子搭載: KV1613L
- 優れた素子間マッチング
- CV特性の優れた直線性
- 高いQ値: Q=200~
- 極めて大きな容量変化比: A=17.0 / 18.5~

CLASSIFICATION

| Rank | | 1 | 2 |
|----------------|-----|-------|-------|
| C ₁ | MIN | 446.0 | 475.0 |
| | MAX | 481.0 | 510.0 |

ABSOLUTE MAXIMUM RATINGS

| Parameter | 項目 | Symbol | 記号 | Rating | 定格 | Unit | 単位 | Remarks | 備考 |
|-----------------------------|--------|------------------|----|------------|----|------|----|-------------------|----|
| Reverse Voltage | 逆方向電圧 | V _R | | 16 | | V | | KV1270NT, KV1613L | |
| | | | | 26 | | | | | |
| Forward Current | 順方向電流 | I _F | | 50 | | mA | | | |
| Power Dissipation | 許容消費電力 | P _D | | 100 | | mW | | | |
| Storage Temperature Range | 保存温度範囲 | T _{STG} | | -55 to 150 | | °C | | | |
| Operating Temperature Range | 動作温度範囲 | T _{OP} | | -55 to +85 | | °C | | | |

ELECTRICAL CHARACTERISTICS

T_A=25°C

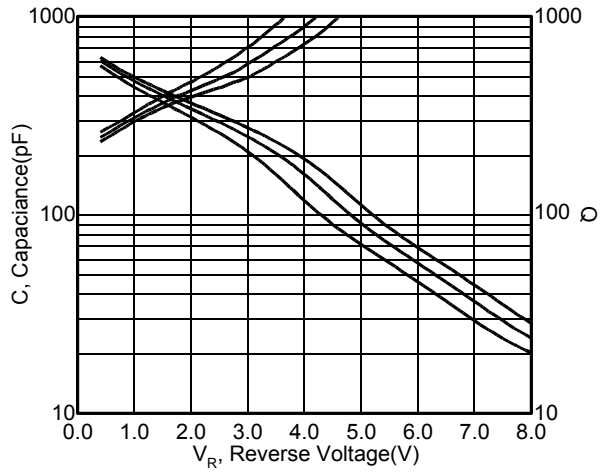
| Parameter | 項目 | Symbol | 記号 | Value | | | Units | Conditions |
|-----------------------|-------|-----------------|-------|-------|----------|----------------------------|----------------------------|--------------------------------|
| | | | | MIN | TYP | MAX | | |
| Reverse Voltage | 逆方向電圧 | V _R | 12 | | | V | I _R =10μA | |
| Reverse Current | 逆方向電流 | I _R | | | 100 | nA | V _R =10V | |
| Diode Capacitance | 容量値 | C ₁ | 446.0 | | 510.0 | pF | V _R =1V, f=1MHz | |
| | | | 18.0 | | 26.0 | pF | KV1270NT | V _R =8V, f=1MHz |
| | | | 19.0 | | 27.0 | | KV1610S KV1613L | |
| Capacitance Tolerance | 容量偏差 | ΔC ₁ | | | 2.5 | % | KV1270NT | V _R =1V, f=1MHz |
| | | | | | 1.0 | | KV1610S | |
| | | | | | 3.0 | | KV1613L | |
| | | ΔC ₄ | | | 3.0 | % | KV1270NT | V _R =4V, f=1MHz |
| | | | | | 2.0 | | KV1610S | |
| | | | | | 3.5 | | KV1613L | |
| ΔC ₈ | | | 3.0 | % | KV1270NT | V _R =8V, f=1MHz | | |
| | | | 2.0 | | KV1610S | | | |
| | | | 3.5 | | KV1613L | | | |
| Q | | Q | 200 | | | | V _R =1V, f=1MHz | |
| Capacitance Ratio | 容量変化比 | A | 17.0 | | | | KV1270NT KV1613L | C ₁ /C ₈ |
| | | | 18.5 | | | | KV1610S | |

* Diode Capacitance measured with Agilent 4279A or equivalent instruments (at OSC level 20±5mVrms)
容量測定器は、Agilent 4279A又は相当品。OSCレベル 20±5mVrms。

TYPICAL CHARACTERISTICS

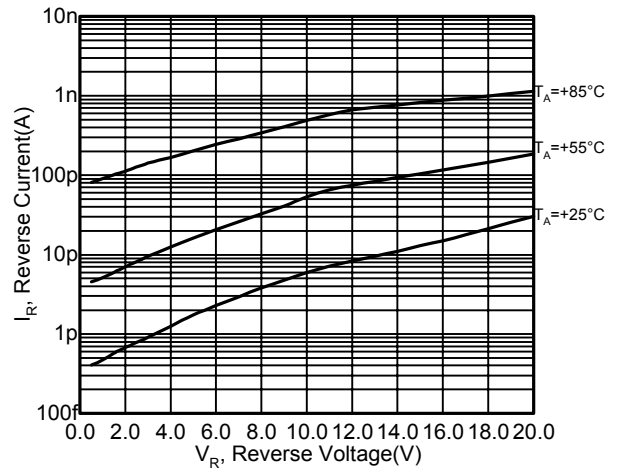
■ Capacitance, Q versus Reverse Voltage
逆方向電圧対容量、Q

f=1MHz, T_A=25°C



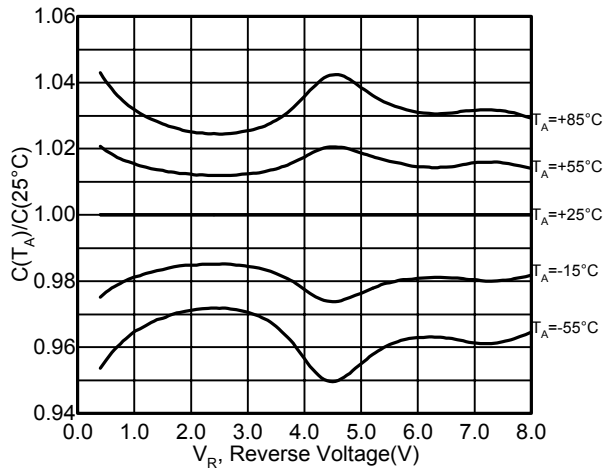
■ Reverse Current versus Reverse Voltage
逆方向電圧対逆電流

T_A=+25 / +55 / +85°C



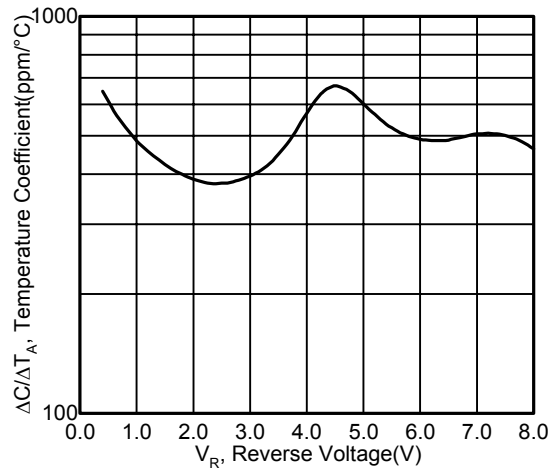
■ C(T_A)/C(25°C) versus Reverse Voltage
逆方向電圧対C(T_A)/C(25°C)

f=1MHz T_A=-55 to +85°C

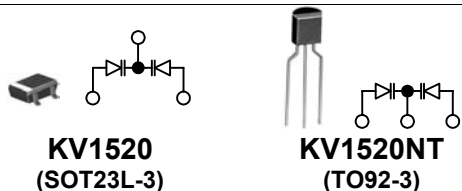


■ Capacitance Temperature Coefficient versus Reverse Voltage
逆方向電圧対温度係数

f=1MHz, T_A=25°C



6.5Vseries variable capacitance diode for AM tuning
6.5V系AMチューナ用電圧可変容量ダイオード



FEATURES

- Included twin element
- Very low operating voltage: $V_{OP}=1.0$ to $6.5V$
- Excellent matching between elements
- Excellent linearity of the CV curve
- High Q: $Q=200$ to
- Extra Large Capacitance Ratio: $A=20.0$ to
- ツインタイプ素子1組搭載
- 低電圧動作: $V_{OP}=1.0\sim 6.5V$
- 優れた素子間マッチング
- CV特性の優れた直線性
- 高いQ値: $Q=200\sim$
- 極めて大きな容量変化比: $A=20\sim$

CLASSIFICATION

| Rank | | 1 | 2 | 3 |
|----------------|-----|-----|-----|-----|
| C ₁ | MIN | 335 | 353 | 371 |
| | MAX | 359 | 377 | 395 |

ABSOLUTE MAXIMUM RATINGS

| Parameter | 項目 | Symbol | 記号 | Rating | 定格 | Unit | 単位 | Remarks | 備考 |
|-----------------------------|--------|-----------|----|------------|----|------|----|---------|----|
| Reverse Voltage | 逆方向電圧 | V_R | | 20 | | V | | | |
| Forward Current | 順方向電流 | I_F | | 50 | | mA | | | |
| Power Dissipation | 許容消費電力 | P_D | | 100 | | mW | | | |
| Storage Temperature Range | 保存温度範囲 | T_{STG} | | -55 to 150 | | °C | | | |
| Operating Temperature Range | 動作温度範囲 | T_{OP} | | -55 to +85 | | °C | | | |

ELECTRICAL CHARACTERISTICS

$T_A=25^\circ C$

| Parameter | 項目 | Symbol | Value | | | Units | Conditions |
|-----------------------|-------|------------------|-------|-------|-------|-------|-------------------------|
| | | | 記号 | MIN | TYP | | |
| Reverse Voltage | 逆方向電圧 | V_R | 16 | | | V | $I_R=10\mu A$ |
| Reverse Current | 逆方向電流 | I_R | | | 50 | nA | $V_R=10V$ |
| Diode Capacitance | 容量値 | C_1 | 335.0 | 360.0 | 395.0 | pF | $V_R=1V, f=1MHz$ |
| | | C_3 | | 100.0 | | pF | $V_R=3V, f=1MHz$ |
| | | $C_{6.5}$ | 14.0 | 15.9 | 17.8 | pF | $V_R=6.5V, f=1MHz$ |
| Capacitance Tolerance | 容量偏差 | ΔC_1 | | | 1.0 | % | $V_R=1V, f=1MHz^{*1}$ |
| | | ΔC_3 | | | 2.0 | % | $V_R=3V, f=1MHz^{*1}$ |
| | | $\Delta C_{6.5}$ | | | 2.0 | % | $V_R=6.5V, f=1MHz^{*1}$ |
| Q | | Q | 200 | | | | $V_R=1.2V, f=1MHz$ |
| Capacitance Ratio | 容量変化比 | A | 20.0 | | | | $C_1/C_{6.5}$ |

* Diode Capacitance measured with Agilent 4279A or equivalent instruments (at OSC level $20\pm 5mVrms$)

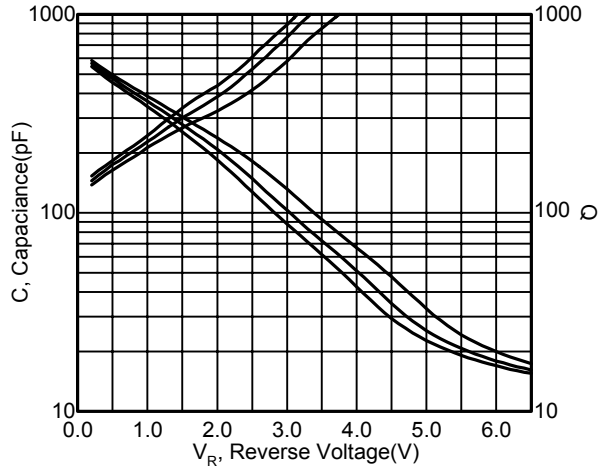
容量測定器は、Agilent 4279A又は相当品。OSCレベル $20\pm 5mVrms$ 。

*1 $(C_{MAX}-C_{MIN})/C_{MIN}\times 100$

TYPICAL CHARACTERISTICS

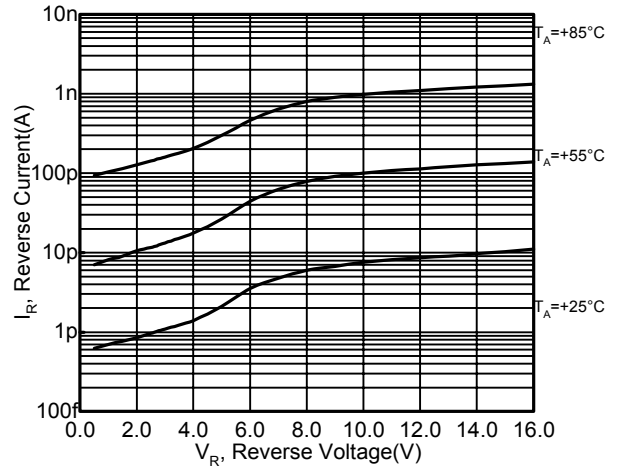
■ Capacitance, Q versus Reverse Voltage
逆方向電圧対容量、Q

f=1MHz, T_A=25°C



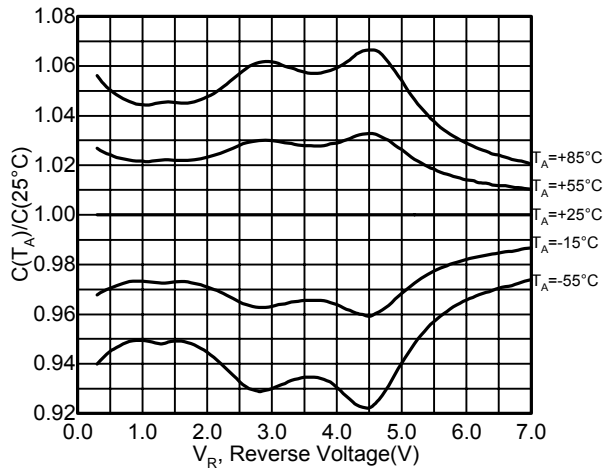
■ Reverse Current versus Reverse Voltage
逆方向電圧対逆電流

T_A=+25 / +55 / +85°C



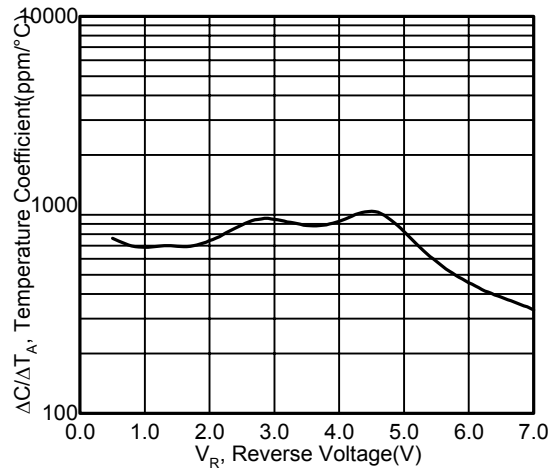
■ C(T_A)/C(25°C) versus Reverse Voltage
逆方向電圧対C(T_A)/C(25°C)

f=1MHz T_A=-55 to +85°C



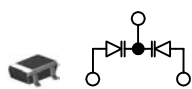
■ Capacitance Temperature Coefficient versus Reverse Voltage
逆方向電圧対温度係数

f=1MHz, T_A=25°C

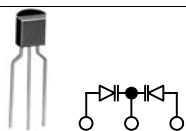


8V series variable capacitance diode for AM tuning

8V系AMチューナ用電圧可変容量ダイオード



KV1560
(SOT23L-3)



KV1560NT
(TO92-3)

FEATURES

- Excellent Matching Between Elements
- Excellent Linearity of The CV Curve
- High Q: Q=200 to
- Extra Large Capacitance Ratio: A=17.0 to
- 優れた素子間マッチング
- CV特性の優れた直線性
- 高いQ値: Q=200~
- 極めて大きな容量変化比: A=17.0~

CLASSIFICATION

| Rank | | 1 | 2 | 3 | 4 |
|----------------|-----|-----|-----|-----|-----|
| C ₁ | MIN | 428 | 446 | 464 | 482 |
| | MAX | 452 | 470 | 488 | 506 |

ABSOLUTE MAXIMUM RATINGS

| Parameter | 項目 | Symbol | 記号 | Rating | 定格 | Unit | 単位 | Remarks | 備考 |
|-----------------------------|--------|------------------|----|------------|----|------|----|---------|----|
| Reverse Voltage | 逆方向電圧 | V _R | | 20 | | V | | | |
| Forward Current | 順方向電流 | I _F | | 50 | | mA | | | |
| Power Dissipation | 許容消費電力 | P _D | | 100 | | mW | | | |
| Storage Temperature Range | 保存温度範囲 | T _{STG} | | -55 to 150 | | °C | | | |
| Operating Temperature Range | 動作温度範囲 | T _{OP} | | -55 to +85 | | °C | | | |

ELECTRICAL CHARACTERISTICS

T_A=25°C

| Parameter | 項目 | Symbol | Value | | | Units | Conditions |
|-----------------------|-------|-------------------|-------|-----|-------|-------|--|
| | | | MIN | TYP | MAX | | |
| Reverse Voltage | 逆方向電圧 | V _R | 16 | | | V | I _R =10μA |
| Reverse Current | 逆方向電流 | I _R | | | 100 | nA | V _R =10V |
| Diode Capacitance | 容量値 | C ₁ | 428.0 | | 506.0 | pF | V _R =1V, f=1MHz |
| | | C _{4.5} | | 100 | | pF | V _R =4.5V, f=1MHz |
| | | C ₈ | 20.0 | | 27.5 | pF | V _R =8V, f=1MHz |
| Capacitance Tolerance | 容量偏差 | ΔC ₁ | | | 1.0 | % | V _R =1V, f=1MHz* ¹ |
| | | ΔC _{4.5} | | | 2.0 | % | V _R =4.5V, f=1MHz* ¹ |
| | | ΔC ₈ | | | 2.0 | % | V _R =8V, f=1MHz* ¹ |
| Q | | Q | 200 | | | | V _R =1V, f=1MHz |
| Capacitance Ratio | 容量変化比 | A | 17.0 | | | | C ₁ /C ₈ |

* Diode Capacitance measured with Agilent 4279A or equivalent instruments (at OSC level 20±5mVrms)

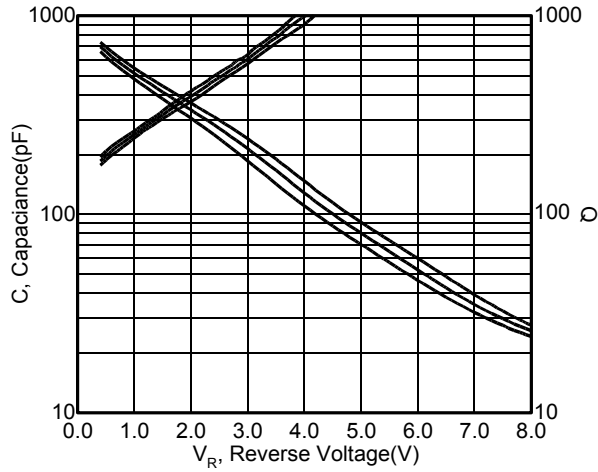
容量測定器は、Agilent 4279A又は相当品。OSCレベル 20±5mVrms。

*¹ (C_{MAX}-C_{MIN})/C_{MIN}×100

TYPICAL CHARACTERISTICS

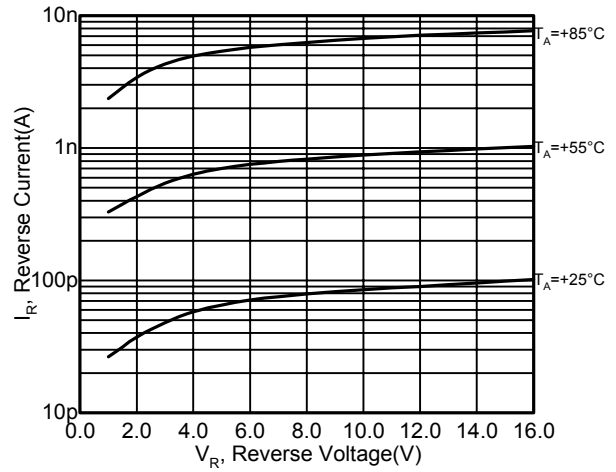
■ Capacitance, Q versus Reverse Voltage
逆方向電圧対容量、Q

f=1MHz, T_A=25°C



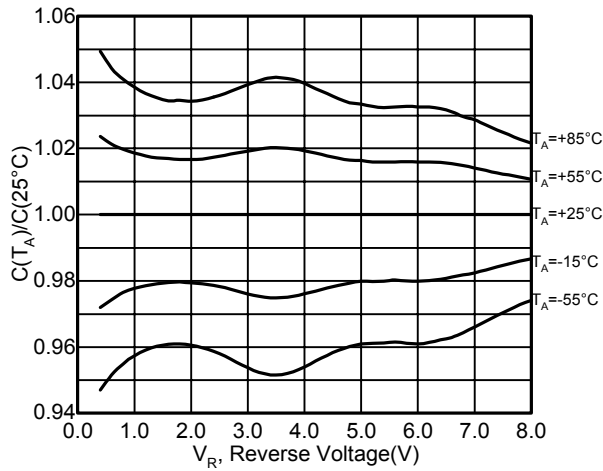
■ Reverse Current versus Reverse Voltage
逆方向電圧対逆電流

T_A=+25 / +55 / +85°C



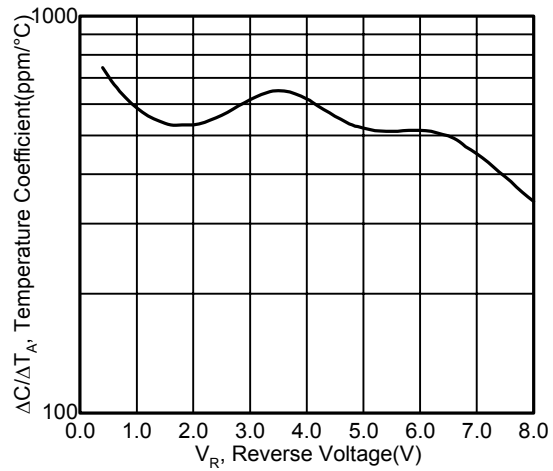
■ C(T_A)/C(25°C) versus Reverse Voltage
逆方向電圧対C(T_A)/C(25°C)

f=1MHz T_A=-55 to +85°C



■ Capacitance Temperature Coefficient versus Reverse Voltage
逆方向電圧対温度係数

f=1MHz, T_A=25°C



TOKO





SEMICONDUCTOR

CATALOG NO. C-149002E②

Variable Capacitance Diodes

SELECTION GUIDE

LW. MW. SW TUNING

| Part. No. | Group | | No. of Elements | Reverse Voltage V _R (V) | Capacitance | | Capacitance Ratio | | Q at Resonance | | Capacitance Deviation | | Taping |
|--|-------|---|-----------------|---------------------------------------|-----------------------|-----------------------|--------------------|---|----------------|-----------------------|-----------------------|-----------------------|--------|
| | | | | | Spec. | Cond. | Spec. | Cond. | Spec. | Cond. | Spec. | Cond. | |
| | | | | | CD min/CD max (pF) | V _R (V) | CD1/CD2 min/max | V _{R1} /V _{R2} (V) | Q | V _R (V) | ΔC (%) | V _R (V) | |
| KV1226  | X | | 2 | 30 | 510/580 | 1 | 20/— | 1/25 | 200 | 1 | 2 | >50pF <50pF | |
| | Y | | | | 550/620 | 1 | | | | | | | |
| | | | | | | | | | | | | | |
| KV1234Z  | Z1 | 1 | 4 | 20 | 445/462 | 1 | 16/22 | 1/8 | 200 | 1 | 2 | 1 | |
| | | 2 | | | 456/480 | 1 | | | | | | | |
| | | 3 | | | 474/500 | 1 | | | | | | | |
| | Z2 | 3 | | | 474/500 | 1 | | | | | | | |
| | | 4 | | | 494/522 | 1 | | | | | | | |
| | | 5 | | | 516/535 | 1 | | | | | | | |
| | Z3 | 1 | | | 445/462 | 1 | | | | | | | |
| | | 2 | | | 456/480 | 1 | | | | | | | |
| | | 3 | | | 474/500 | 1 | | | | | | | |
| | | 4 | | | 494/522 | 1 | | | | | | | |
| | | 5 | | | 516/535 | 1 | | | | | | | |
| | | | | | | | | | | | | | |
| KV1235Z  | Z1 | 1 | 3 | 20 | 445/462 | 1 | 16/22 | 1/8 | 200 | 1 | 2 | 1 | |
| | | 2 | | | 456/480 | 1 | | | | | | | |
| | | 3 | | | 474/500 | 1 | | | | | | | |
| | Z2 | 3 | | | 474/500 | 1 | | | | | | | |
| | | 4 | | | 494/522 | 1 | | | | | | | |
| | | 5 | | | 516/535 | 1 | | | | | | | |
| | Z3 | 1 | | | 445/462 | 1 | | | | | | | |
| | | 2 | | | 456/480 | 1 | | | | | | | |
| | | 3 | | | 474/500 | 1 | | | | | | | |
| | | 4 | | | 494/522 | 1 | | | | | | | |
| | | 5 | | | 516/535 | 1 | | | | | | | |
| | | | | | | | | | | | | | |
| KV1236Z  | Z1 | 1 | 2 | 20 | 445/462 | 1 | 16/22 | 1/8 | 200 | 1 | 1 | 1 | |
| | | 2 | | | 456/480 | 1 | | | | | | | |
| | | 3 | | | 474/500 | 1 | | | | | | | |
| | Z2 | 3 | | | 474/500 | 1 | | | | | | | |
| | | 4 | | | 494/522 | 1 | | | | | | | |
| | | 5 | | | 516/535 | 1 | | | | | | | |
| | Z3 | 1 | | | 445/462 | 1 | | | | | | | |
| | | 2 | | | 456/480 | 1 | | | | | | | |
| | | 3 | | | 474/500 | 1 | | | | | | | |
| | | 4 | | | 494/522 | 1 | | | | | | | |
| | | 5 | | | 516/535 | 1 | | | | | | | |
| | | | | | | | | | | | | | |

Bonex Electronic Components



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Tel: 01753 549502 Fax: 01753 543812




MEETING YOUR NEEDS

TOKO, INC.




A Wholly owned subsidiary of Bonex Ltd



LW. MW. SW TUNING

| Part. No. | Group | No. of Elements | Reverse Voltage V_R (V) | Capacitance | | Capacitance Ratio | | Q at Resonance | | Capacitance Deviation | | Taping |
|---|-------|-----------------|------------------------------|-----------------------|--------------|--------------------|------------------------|----------------|--------------|-----------------------|--------------|--------|
| | | | | Spec. | Cond. | Spec. | Cond. | Spec. | Cond. | Spec. | Cond. | |
| | | | | CD min/CD max (pF) | V_R (V) | CD1/CD2 min/max | V_{R1}/V_{R2} (V) | Q | V_R (V) | ΔC (%) | V_R (V) | |
| KV1560  | | 1 | 20 | 428/452 | 1 | 17/— | 1/7 | 200 | 1 | 1 | 1 | A |
| | | 2 | | 446/470 | 1 | | | | | 2 | 4.5 | |
| | | 3 | | 464/488 | 1 | | | | | 2 | 8 | |
| | | 4 | | 482/506 | 1 | | | | | | | |
| KV1560NT  | | 1 | 20 | 428/452 | 1 | 17/— | 1/7 | 200 | 1 | 1 | 1 | C |
| | | 2 | | 446/470 | 1 | | | | | 2 | 4.5 | |
| | | 3 | | 464/488 | 1 | | | | | 2 | 8 | |
| | | 4 | | 482/506 | 1 | | | | | | | |
| KV1562M  | | 1 | 20 | 428/452 | 1 | 17/— | 1/7 | 200 | 1 | 1.2 | 1 | B |
| | | 2 | | 446/470 | 1 | | | | | 2.2 | 4.5 | |
| | | 3 | | 464/488 | 1 | | | | | 2.2 | 8 | |
| | | 4 | | 482/506 | 1 | | | | | | | |

VCO. VFO

| Part. No. | Group | No. of Elements | Reverse Voltage V_R (V) | Capacitance | | Capacitance Ratio | | Q at Resonance | | Taping |
|---|-------|-----------------|------------------------------|-----------------------|--------------|--------------------|------------------------|----------------|--------------|--------|
| | | | | Spec. | Cond. | Spec. | Cond. | Spec. | Cond. | |
| | | | | CD min/CD max (pF) | V_R (V) | CD1/CD2 min/max | V_{R1}/V_{R2} (V) | Q | V_R (V) | |
| KV1230Z  | | 1 | 20 | 445/462 | 1 | 16/22 | 1/8 | 200 | 1 | |
| | | 2 | | 456/480 | 1 | | | | | |
| | | 3 | | 474/500 | 1 | | | | | |
| | | 4 | | 494/522 | 1 | | | | | |
| | | 5 | | 516/535 | 1 | | | | | |
| KV1281-1  | | 1 | 20 | 426.0/453.5 | 1 | 17/— | 1/7 | 200 | 1 | |
| | | 2 | | 444.5/471.7 | 1 | | | | | |
| | | 3 | | 462.3/489.9 | 1 | | | | | |
| | | 4 | | 480.1/508.0 | 1 | | | | | |
| KV1530  | | 1 | 15 | 400/535 | 1 | 12/— | 1/9 | 200 | 1 | A |

MARKING LIST

| MARK | PART No. |
|------|------------------------------|
| 226 | KV1226 |
| 250 | KV1250 |
| 260 | KV1260, KV1260-2 |
| 280 | KV1280, KV1280-2 |
| 281 | KV1281-1, KV1281-2, KV1281-3 |
| 35Z | KV1230Z, KV1235Z |
| 36Z | KV1230Z, KV1234Z, KV1236Z |
| 550 | KV1550NT |
| 560 | KV1560NT |
| 562 | KV1562M |
| A3 | KV1530 |
| A5 | KV1550 |
| A6 | KV1560 |

特長

VCO用(テーピング供給)

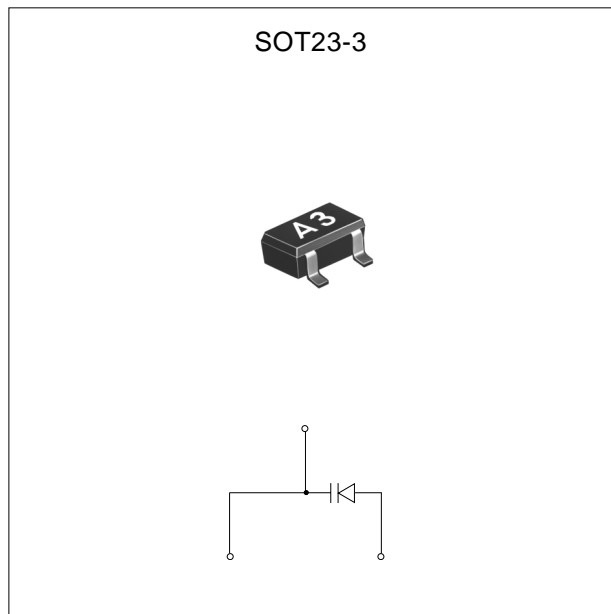
小形面実装PKGに1素子搭載。

テーピングで供給し、自動化に対応。

1V~9.0Vの広範囲で動作し、容量変化比が大きい。

CV特性の直線性が良く、Qが高い。

外形図



絶対最大定格

Ta = 25

| 項目 | 記号 | 定格 | 単位 |
|--------|------------------|--------------|----|
| 逆方向電圧 | V _R | 35 | V |
| 順方向電流 | I _F | 50 | mA |
| 許容消費電力 | P _D | 100 | mW |
| 保存温度範囲 | T _{stg} | - 55 ~ + 150 | |
| 動作温度範囲 | T _{OP} | - 55 ~ + 85 | |

電気的特性

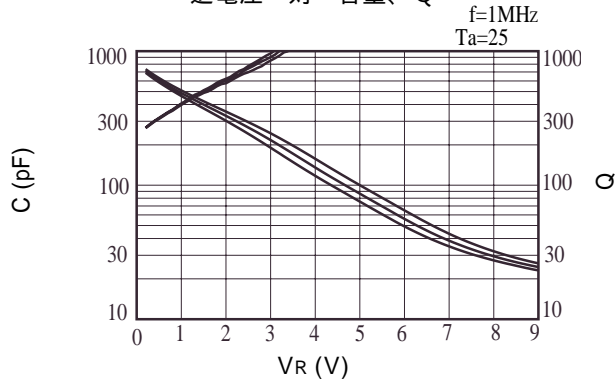
Ta = 25

| 項目 | 記号 | 規格 | | | 単位 | 条件 |
|-------|------------------|------|-----|-----|----|-----------------------------------|
| | | MIN | TYP | MAX | | |
| 逆方向電圧 | V _R | 30 | | | V | I _R = 10 μA |
| 逆方向電流 | I _R | | | 50 | nA | V _R = 9V |
| 容量値 | C ₁ | 450 | 490 | 530 | pF | V _R = 1V, f = 1MHz |
| | C _{3.5} | 150 | 175 | 200 | pF | V _R = 3.5V, f = 1MHz |
| | C ₇ | 30 | 39 | 48 | pF | V _R = 7V, f = 1MHz |
| | C ₉ | | 24 | | pF | V _R = 9V, f = 1MHz |
| Q | Q | 250 | | | | V _R = 1V, f = 1MHz |
| 容量変化比 | A ₁ | 3.5 | | 6.3 | | C _{3.5} / C ₇ |
| | A ₂ | 12.0 | | | | C ₁ / C ₉ |

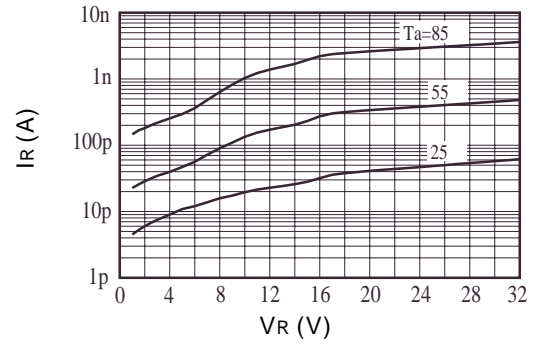
容量測定器は、YHP 4279 A 又は相当品。OSCレベル 20mV ± 5mV RMS

特性曲線

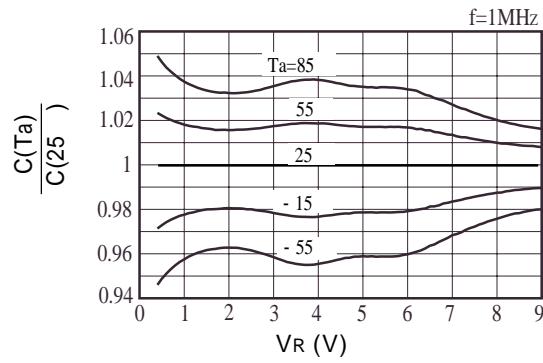
逆電圧 対 容量、Q



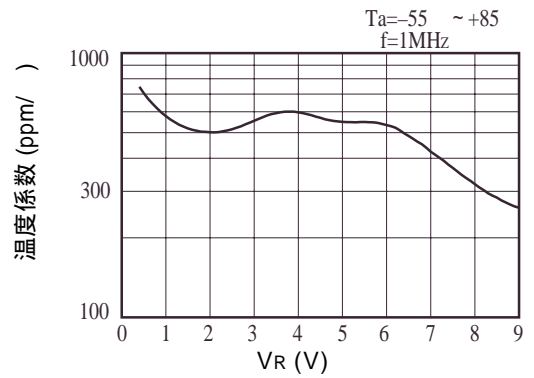
逆電圧 対 逆電流特性



逆電圧 対 $\frac{C(Ta)}{C(25)}$



逆電圧 対 温度係数



AM
チューナ
用

特長

AM電子同調用(テーピング供給)

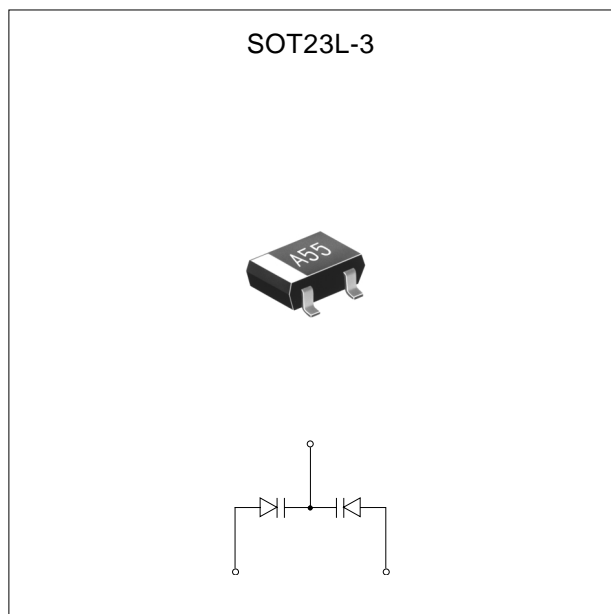
ひとつの面実装PKGにペア性の良いツインタイプの素子を1組搭載。

4.5Vまでの低電圧で動作しますので、低電圧仕様の製品に最適。

CV特性の直線性が優れている。

容量変化比が大きくQが高い。

外形図



絶対最大定格

Ta = 25

| 項目 | 記号 | 定格 | 単位 |
|--------|------------------|--------------|----|
| 逆方向電圧 | V _R | 30 | V |
| 順方向電流 | I _F | 50 | mA |
| 許容消費電力 | P _D | 100 | mW |
| 保存温度範囲 | T _{stg} | - 55 ~ + 150 | |
| 動作温度範囲 | T _{OP} | - 55 ~ + 85 | |

電気的特性

Ta = 25

| 項目 | 記号 | 規格 | | | 単位 | 条件 |
|----------|------------------|------|------|------|----|--------------------------------------|
| | | MIN | TYP | MAX | | |
| 逆方向電圧 | V _R | 20 | | | V | I _R = 10 μA |
| 逆方向電流 | I _R | | | 50 | nA | V _R = 15V |
| 容量値 | C ₁ | 400 | 429 | 458 | pF | V _R = 1V, f = 1MHz |
| | C ₃ | | 65.0 | | pF | V _R = 3V, f = 1MHz |
| | C _{4.5} | 21.0 | 23.5 | 26.0 | pF | V _R = 4.5V, f = 1MHz |
| 2素子間容量偏差 | C ₁ | | | 2.0 | % | V _R = 1V, f = 1MHz (注1) |
| | C ₃ | | | 3.0 | % | V _R = 3V, f = 1MHz (注1) |
| | C _{4.5} | | | 3.0 | % | V _R = 4.5V, f = 1MHz (注1) |
| Q | Q | 200 | | | | V _R = 1V, f = 1MHz |
| 容量変化比 | A | 16.5 | 18.3 | 20.0 | | C ₁ / C _{4.5} |

容量測定器は、YHP 4279 A 又は相当品。OSCレベル 20mV ± 5mV RMS

$$\text{注 1: } \frac{C_{\text{MAX}} - C_{\text{MIN}}}{C_{\text{MIN}}} \times 100$$

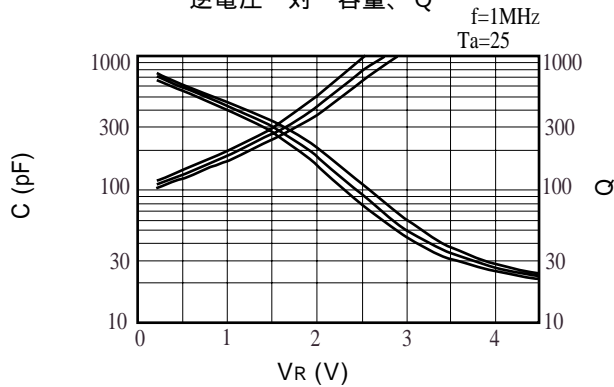
ランク分類

(単位: pF)

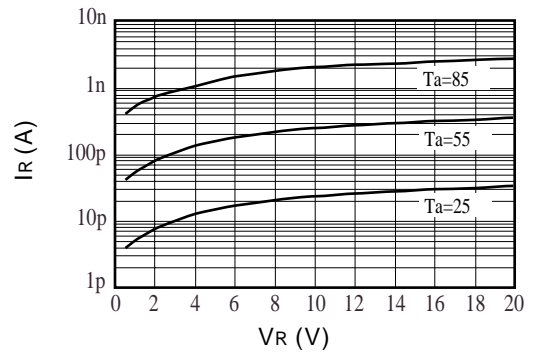
| C | | Rank | 1 | 2 | 3 | 4 |
|----|-----|------|-----|-----|-----|-----|
| C1 | MIN | | 400 | 413 | 426 | 439 |
| | MAX | | 419 | 432 | 445 | 458 |

特性曲線

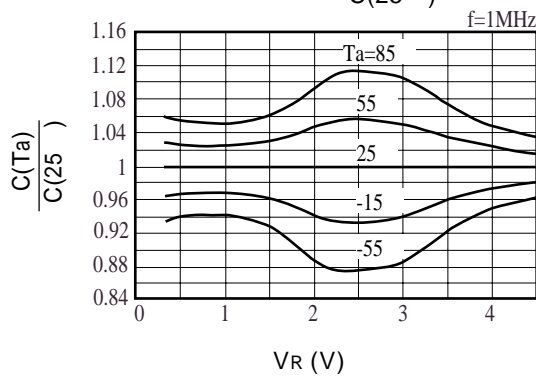
逆電圧 対 容量、Q



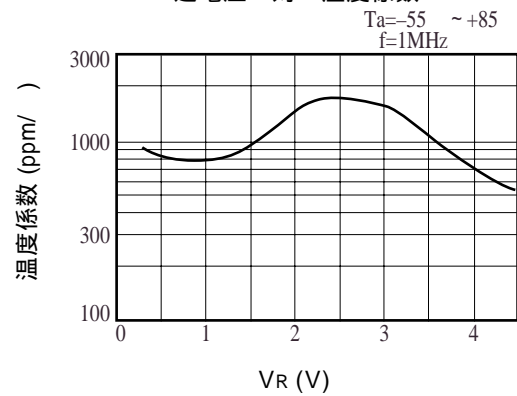
逆電圧 対 逆電流特性



逆電圧 対 $\frac{C(Ta)}{C(25)}$



逆電圧 対 温度係数



AMチューナ用

特長

AM電子同調用(テーピング供給)

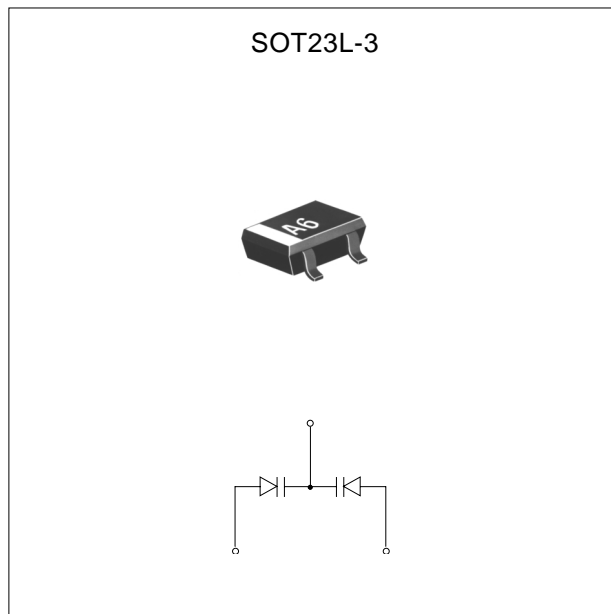
ひとつの面実装PKGにツインタイプの素子を1組搭載。

テーピングで供給し、自動化に対応。

素子間のマッチングが極めて良く、CV特性の直線性が優れている。

容量変化比が大きくQが高い。

外形図



絶対最大定格

Ta = 25

| 項目 | 記号 | 定格 | 単位 |
|--------|------------------|--------------|----|
| 逆方向電圧 | V _R | 16 | V |
| 順方向電流 | I _F | 50 | mA |
| 許容消費電力 | P _D | 100 | mW |
| 保存温度範囲 | T _{stg} | - 55 ~ + 150 | |
| 動作温度範囲 | T _{OP} | - 55 ~ + 85 | |

電気的特性

Ta = 25

| 項目 | 記号 | 規格 | | | 単位 | 条件 |
|----------|------------------|-------|-----|-------|----|--------------------------------------|
| | | MIN | TYP | MAX | | |
| 逆方向電圧 | V _R | 16 | | | V | I _R = 10 μA |
| 逆方向電流 | I _R | | | 100 | nA | V _R = 10V |
| 容量値 | C ₁ | 428.0 | | 506.0 | pF | V _R = 1V, f = 1MHz |
| | C _{4.5} | | 100 | | pF | V _R = 4.5V, f = 1MHz |
| | C ₈ | 20.0 | | 27.5 | pF | V _R = 8V, f = 1MHz |
| 2素子間容量偏差 | C ₁ | | | 1.0 | % | V _R = 1V, f = 1MHz (注1) |
| | C _{4.5} | | | 2.0 | % | V _R = 4.5V, f = 1MHz (注1) |
| | C ₈ | | | 2.0 | % | V _R = 8V, f = 1MHz (注1) |
| Q | Q | 200 | | | | V _R = 1V, f = 1MHz |
| 容量変化比 | A | 17.0 | | | | C ₁ / C ₈ |

容量測定器は、YHP 4279 A 又は相当品。OSCレベル 20mV ± 5mV RMS

$$\text{注1: } \frac{C_{\text{MAX}} - C_{\text{MIN}}}{C_{\text{MIN}}} \times 100$$

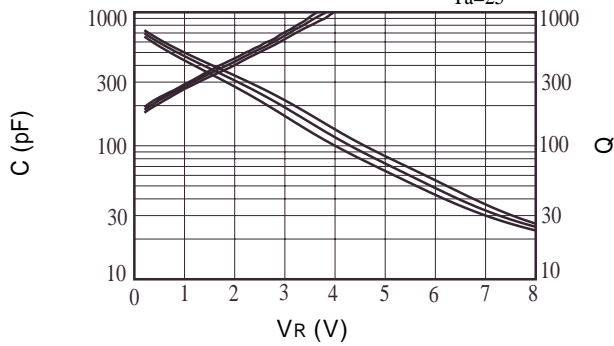
ランク分類

(単位: pF)

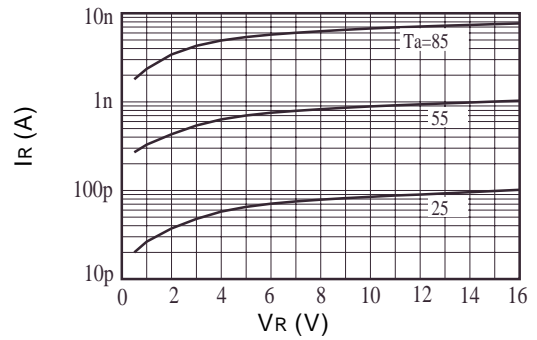
| C | | Rank | 1 | 2 | 3 | 4 |
|----|-----|------|-----|-----|-----|-----|
| C1 | MIN | | 428 | 446 | 464 | 482 |
| | MAX | | 452 | 470 | 488 | 506 |

特性曲線

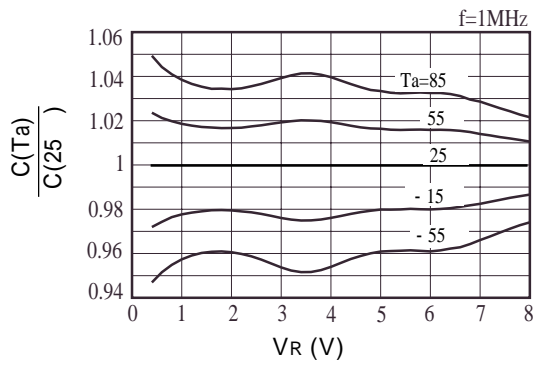
逆電圧 対 容量、Q
f=1MHz
Ta=25



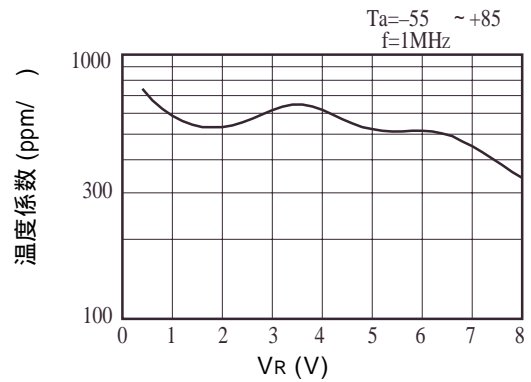
逆電圧 対 逆電流特性



逆電圧 対 $\frac{C(Ta)}{C(25)}$



逆電圧 対 温度係数



AMチューナ用

特長

AM電子同調用

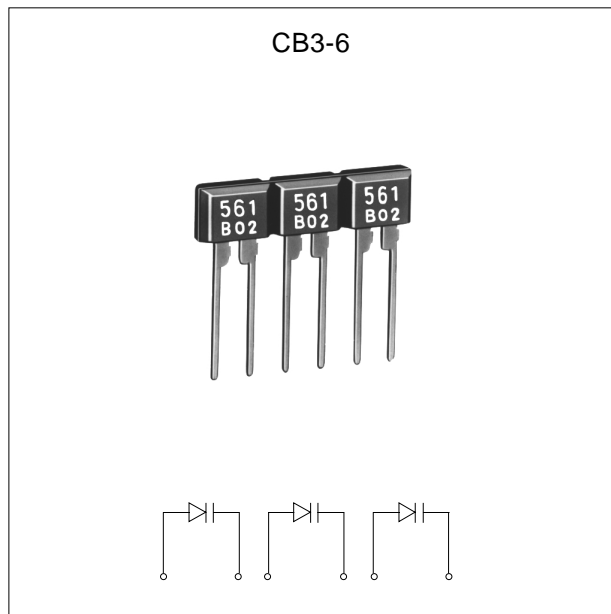
カソード分離の3連PKG(分割可能)に3素子搭載した使いやすい構成。

完全に同一工程でPKGまで一貫生産されるので、素子間のマッチングが極めて良い。

CV特性の直線性が優れている。

容量変化比が大きくQが高い。

外形図



絶対最大定格

Ta = 25

| 項目 | 記号 | 定格 | 単位 |
|--------|------------------|--------------|----|
| 逆方向電圧 | V _R | 16 | V |
| 順方向電流 | I _F | 50 | mA |
| 許容消費電力 | P _D | 100 | mW |
| 保存温度範囲 | T _{stg} | - 55 ~ + 150 | |
| 動作温度範囲 | T _{OP} | - 55 ~ + 85 | |

電気的特性

Ta = 25

| 項目 | 記号 | 規格 | | | 単位 | 条件 |
|----------|------------------|-------|-----|-------|----|--------------------------------------|
| | | MIN | TYP | MAX | | |
| 逆方向電圧 | V _R | 16 | | | V | I _R = 10 μA |
| 逆方向電流 | I _R | | | 100 | nA | V _R = 10V |
| 容量値 | C ₁ | 410.0 | | 506.0 | pF | V _R = 1V, f = 1MHz |
| | C _{4.5} | | 100 | | pF | V _R = 4.5V, f = 1MHz |
| | C ₈ | 20.0 | | 27.5 | pF | V _R = 8V, f = 1MHz |
| 3素子間容量偏差 | C ₁ | | | 1.5 | % | V _R = 1V, f = 1MHz (注1) |
| | C _{4.5} | | | 2.5 | % | V _R = 4.5V, f = 1MHz (注1) |
| | C ₈ | | | 2.5 | % | V _R = 8V, f = 1MHz (注1) |
| Q | Q | 200 | | | | V _R = 1V, f = 1MHz |
| 容量変化比 | A | 17.0 | | | | C ₁ / C ₈ |

容量測定器は、YHP 4279 A 又は相当品。OSCレベル 20mV ± 5mV RMS

$$\text{注 1: } \frac{C_{\text{MAX}} - C_{\text{MIN}}}{C_{\text{MIN}}} \times 100$$

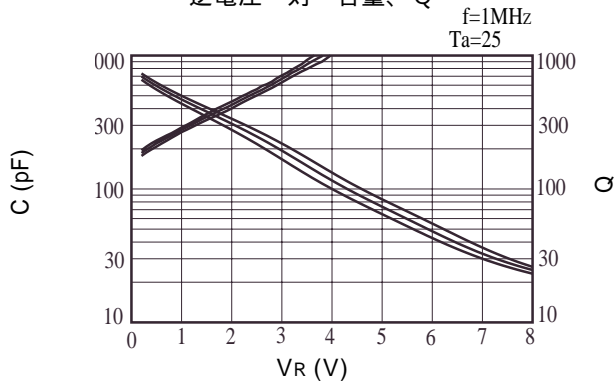
ランク分類

(単位 : pF)

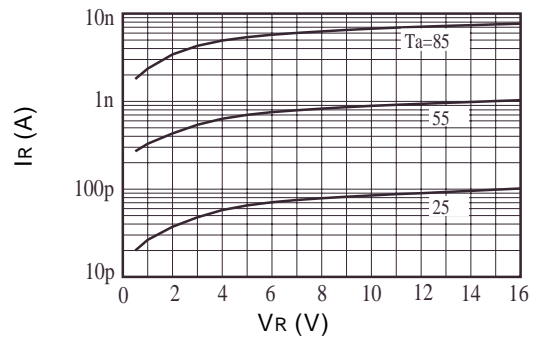
| C | | Rank | 0 | 1 | 2 | 3 | 4 |
|----|-----|------|-----|-----|-----|-----|-----|
| C1 | MIN | | 410 | 428 | 446 | 464 | 482 |
| | MAX | | 434 | 452 | 470 | 488 | 506 |

特性曲線

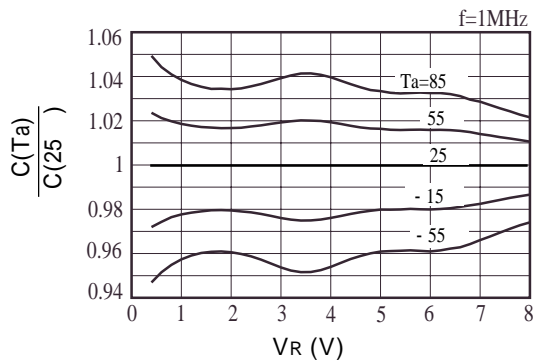
逆電圧 対 容量、Q



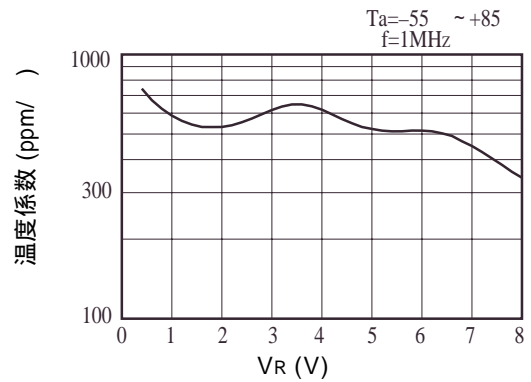
逆電圧 対 逆電流特性



逆電圧 対 $\frac{C(Ta)}{C(25)}$



逆電圧 対 温度係数



AMチューナ用

特長

AM電子同調用（テーピング供給）

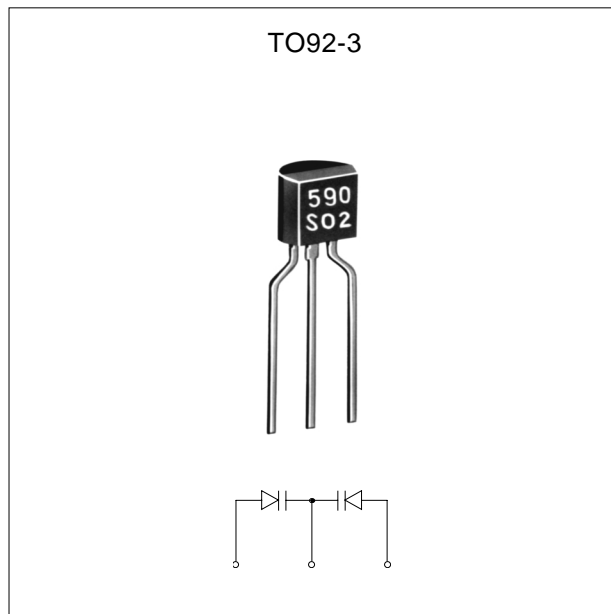
ひとつのPKGにツインタイプの素子を1組搭載。

1V～6.5Vの低電圧で動作。

素子間のマッチングが極めて良く、CV特性の直線性が優れている。

容量変化比が大きくQが高い。

外形図



絶対最大定格

Ta = 25

| 項目 | 記号 | 定格 | 単位 |
|--------|------------------|--------------|----|
| 逆方向電圧 | V _R | 30 | V |
| 順方向電流 | I _F | 50 | mA |
| 許容消費電力 | P _D | 100 | mW |
| 保存温度範囲 | T _{stg} | - 55 ~ + 150 | |
| 動作温度範囲 | T _{OP} | - 55 ~ + 85 | |

電気的特性

Ta = 25

| 項目 | 記号 | 規格 | | | 単位 | 条件 |
|----------|------------------|-------|-------|-------|----|--------------------------------------|
| | | MIN | TYP | MAX | | |
| 逆方向電圧 | V _R | 20 | | | V | I _R = 10 μA |
| 逆方向電流 | I _R | | | 50 | nA | V _R = 16V |
| 容量値 | C ₁ | 433.0 | 470.0 | 511.0 | pF | V _R = 1V, f = 1MHz |
| | C ₃ | | 150 | | pF | V _R = 3V, f = 1MHz |
| | C ₅ | | 45 | | pF | V _R = 5V, f = 1MHz |
| | C _{6.5} | 21.0 | 24.0 | 27.0 | pF | V _R = 6.5V, f = 1MHz |
| 容量変化比 | A | 17.0 | 17.5 | | | C ₁ / C _{6.5} |
| Q | Q | 200 | | | | V _R = 1V, f = 1MHz |
| 2素子間容量偏差 | C ₁ | | | 1.0 | % | V _R = 1V, f = 1MHz (注1) |
| | C ₃ | | | 2.0 | % | V _R = 3V, f = 1MHz (注1) |
| | C _{6.5} | | | 2.0 | % | V _R = 6.5V, f = 1MHz (注1) |

容量測定器は、YHP 4279 A 又は相当品。OSCレベル 20mV ± 5mV RMS

$$\text{注1: } \frac{C_{\text{MAX}} - C_{\text{MIN}}}{C_{\text{MIN}}} \times 100$$

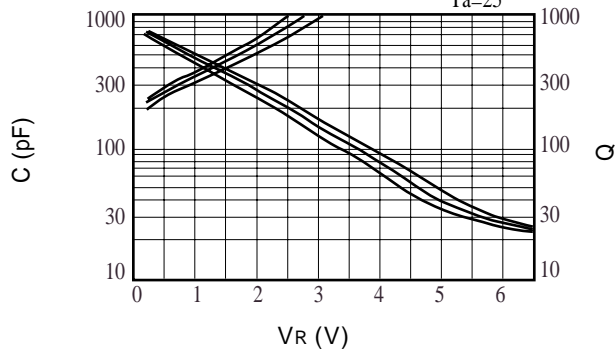
ランク分類

(単位: pF)

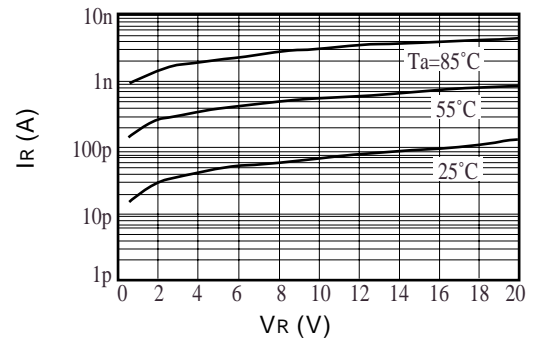
| C | | Rank | 1 | 2 | 3 |
|----|-----|------|-----|-----|-----|
| C1 | MIN | | 433 | 457 | 481 |
| | MAX | | 463 | 487 | 511 |

特性曲線

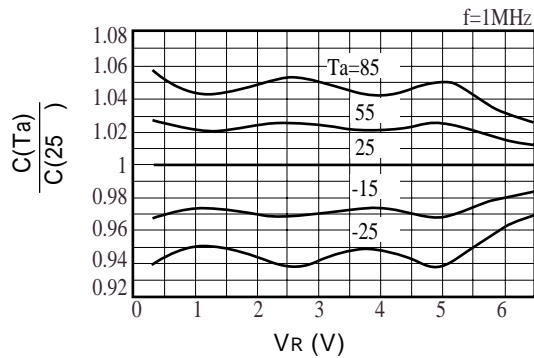
逆電圧 対 容量、Q $f=1\text{MHz}$
 $T_a=25$



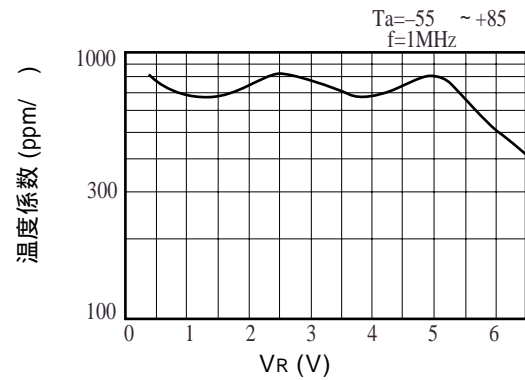
逆電圧 対 逆電流特性



逆電圧 対 $\frac{C(T_a)}{C(25)}$



逆電圧 対 温度係数



AMチューナ用