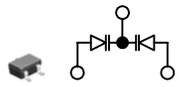
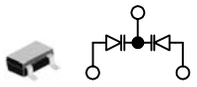
8V series variable capacitance diode for FM tuning
8V系FMチューナ用電圧可変容量ダイオード



KV1700R
(SOT23C-3)



KV1700S
(SOT23-3)

FEATURES

- Included Twin Element
- Very Small Tolerance of Element Being Next Device To Each Other
- Excellent Linearity of The CV Curve
- Extra Large Capacitance Ratio: A=2.70 to
- Very Small Series Resistance: R_S=to 0.3Ω

- ツインタイプ素子1組搭載
- 小さい隣接デバイス間容量偏差
- CV特性の優れた直線性
- 極めて大きな容量変化比: A=2.70~
- 小さい直列抵抗: R_S=~0.3Ω

CLASSIFICATION

C \ Rank		1	2	3	4	5
C_2	MIN	68.86	70.82	72.80	74.85	76.96
	MAX	71.52	73.53	75.61	77.74	79.93

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	14	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 記号	Value MIN	Value TYP	Value MAX	Units 単位	Conditions 条件
Reverse Voltage 逆方向電圧	V_R	12			V	I_R=10μA
Reverse Current 逆方向電流	I_R			10.0	nA	V_R=10V
Diode Capacitance 容量値	C_2	68.86		79.93	pF	V_R=2V, f=1MHz
	C_8	23.28		27.40	pF	V_R=8V, f=1MHz
Series Resistance 直列抵抗	R_S			0.30	Ω	V_R=3.0V, f=100MHz
Capacitance Ratio 容量変化比	A	2.70		3.20		C_2/C_8

* Capacitance measured in parallel connections.
容量値は、Back to Back Typeの2つのダイオードの平均値です。

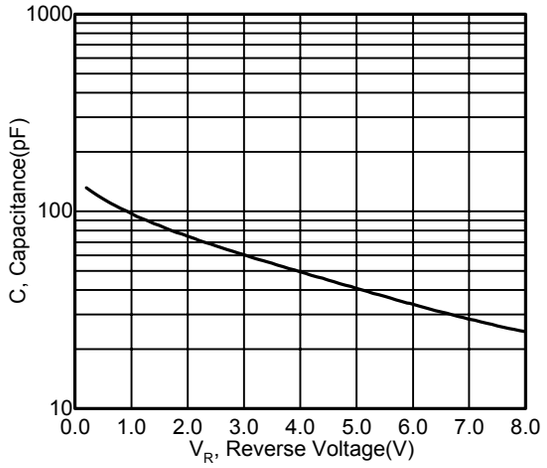
* Diode Capacitance measured with Agilent 4279A or equivalent instruments (at OSC level 20±5mVrms)
容量測定器は、Agilent 4279A又は相当品。OSCレベル 20±5mVrms。

* Resistance meter is Agilent 4291B or equivalent instruments.
直列抵抗測定器は、Agilent 4291B又は相当品。

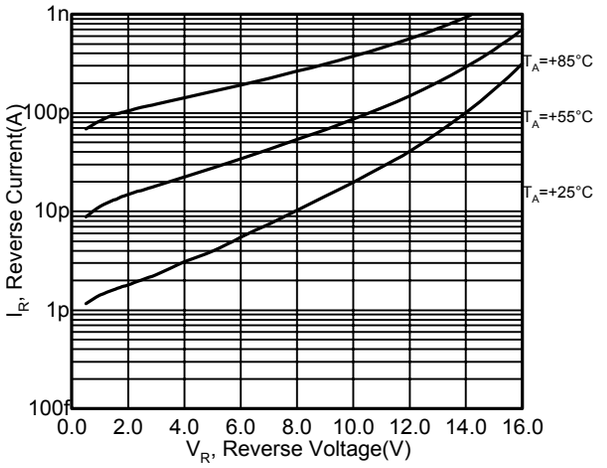
* The tolerance of element that is next to each other in same reel is within 3% at C_2, C_5 and C_8.
同一リール内で隣接する素子のC_2、C_5、C_8の容量偏差は3.0%以内。

TYPICAL CHARACTERISTICS

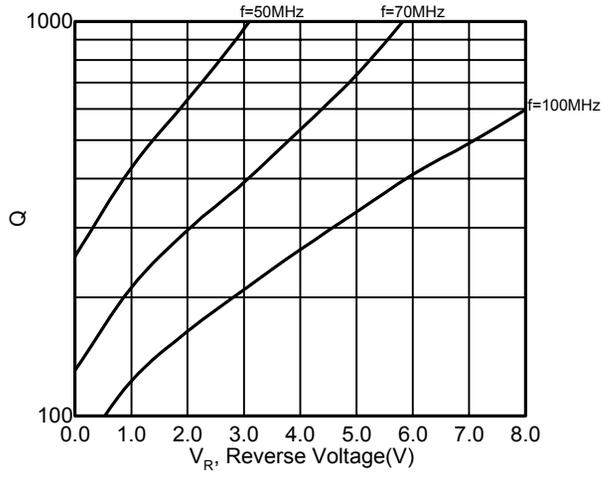
■ Capacitance versus Reverse Voltage
逆方向電圧対容量 f=1MHz, T_A=25°C



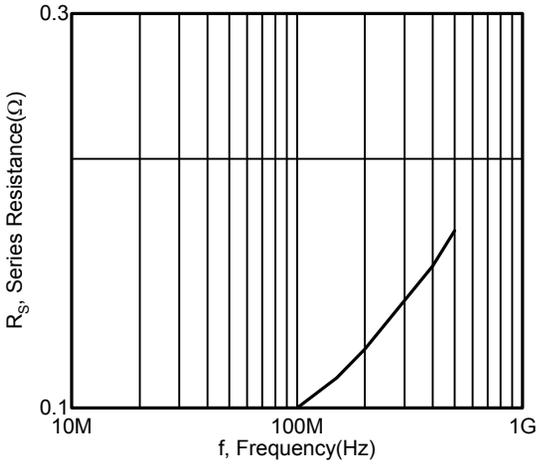
■ Reverse Current versus Reverse Voltage
逆方向電圧対逆電流 T_A=+25 / +55 / +85°C



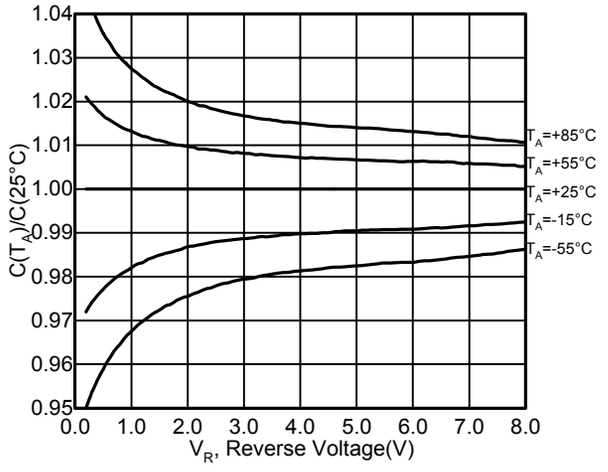
■ Q versus Reverse Voltage
逆方向電圧対Q T_A=25°C



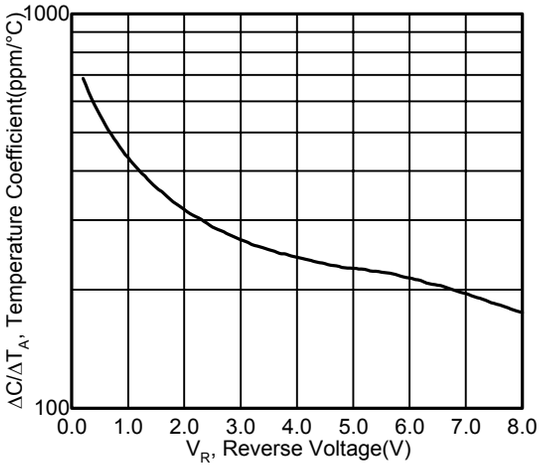
■ Series Resistance versus Frequency
周波数対直列抵抗 V_R=1.5V, T_A=25°C



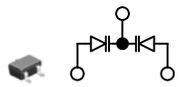
■ $C(T_A)/C(25°C)$ versus Reverse Voltage
逆方向電圧対$C(T_A)/C(25°C)$ f=1MHz T_A=-55 to +85°C



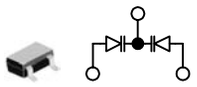
■ Capacitance Temperature Coefficient versus Reverse Voltage
逆方向電圧対温度係数 f=1MHz, T_A=25°C



8V series variable capacitance diode for FM tuning
8V系FMチューナ用電圧可変容量ダイオード



KV1720R
(SOT23C-3)



KV1720S
(SOT23-3)

FEATURES

- Included Twin Element
- Very Small Tolerance of Element Being Next Device To Each Other
- Excellent Linearity of The CV Curve
- Extra Large Capacitance Ratio: A=2.00 to
- Very Small Series Resistance: R_S=to 0.3Ω

- ツインタイプ素子1組搭載
- 小さい隣接デバイス間容量偏差
- CV特性の優れた直線性
- 極めて大きな容量変化比: A=2.00~
- 小さい直列抵抗: R_S=~0.3Ω

CLASSIFICATION

C \ Rank		1	2	3	4
C_2	MIN	41.17	42.33	43.52	44.75
	MAX	42.76	43.96	45.20	46.48

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	18	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 記号	Value MIN	Value TYP	Value MAX	Units 単位	Conditions 条件
Reverse Voltage 逆方向電圧	V_R	12			V	I_R=10μA
Reverse Current 逆方向電流	I_R			10.0	nA	V_R=10V
Diode Capacitance 容量値	C_2	41.17		46.48	pF	V_R=2.0V, f=1MHz
	C_8	16.00		21.34	pF	V_R=8.0V, f=1MHz
Series Resistance 直列抵抗	R_S			0.30	Ω	V_R=1.0V, f=100MHz
Capacitance Ratio 容量変化比	A	2.00		2.60		C_2/C_8

* Capacitance measured in parallel connections.
容量値は、Back to Back Typeの2つのダイオードの平均値です。

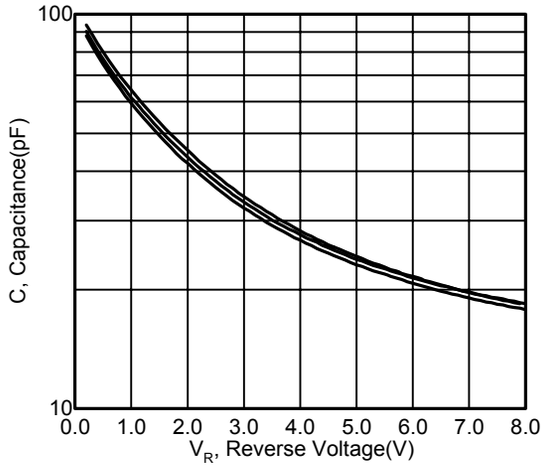
* Diode Capacitance measured with Agilent 4279A or equivalent instruments (at OSC level 20±5mVrms)
容量測定器は、Agilent 4279A又は相当品。OSCレベル 20±5mVrms。

* Resistance meter is Agilent 4291B or equivalent instruments.
直列抵抗測定器は、Agilent 4291B又は相当品。

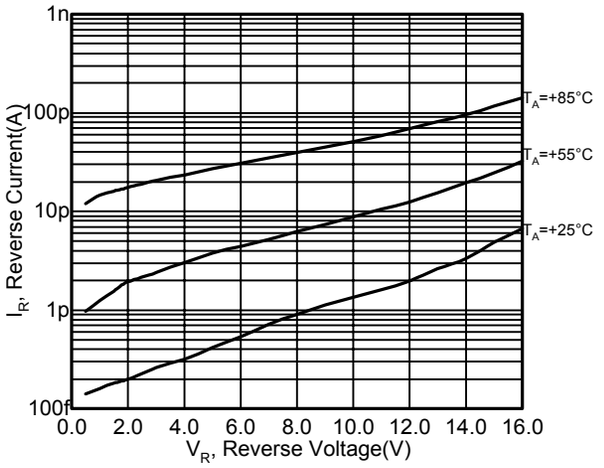
* The tolerance of element that is next to each other in same reel is within 3% at C_2, C_5 and C_8.
同一リール内で隣接する素子のC_2、C_5、C_8の容量偏差は3.0%以内。

TYPICAL CHARACTERISTICS

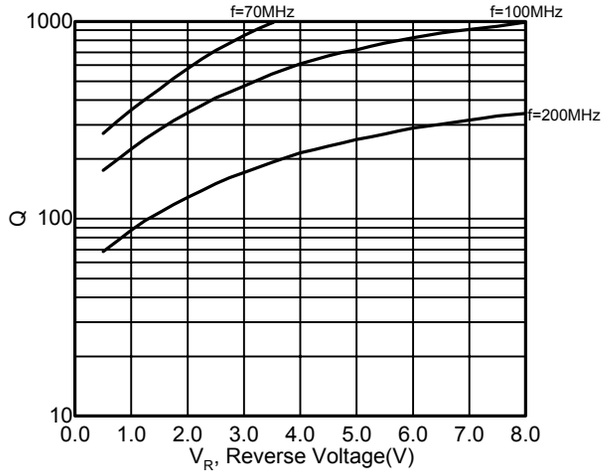
■ Capacitance versus Reverse Voltage
逆方向電圧対容量 f=1MHz, T_A=25°C



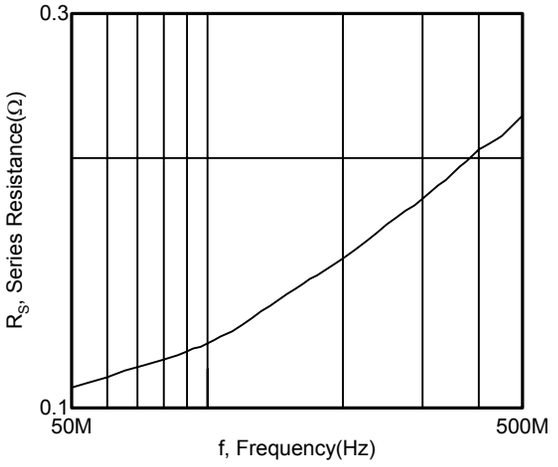
■ Reverse Current versus Reverse Voltage
逆方向電圧対逆電流 T_A=+25 / +55 / +85°C



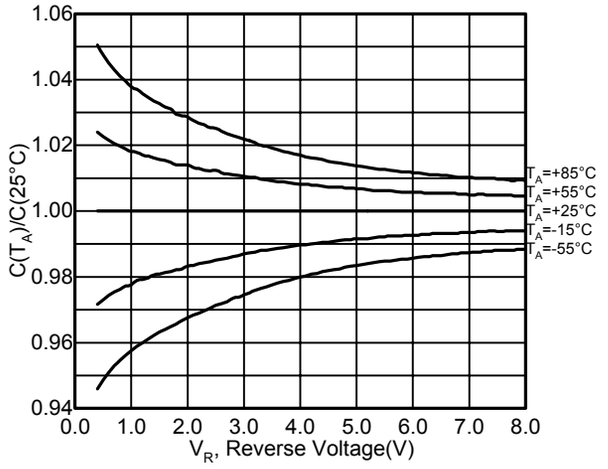
■ Q versus Reverse Voltage
逆方向電圧対Q T_A=25°C



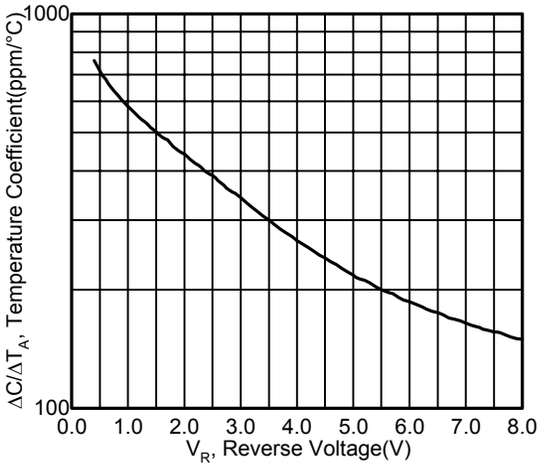
■ Series Resistance versus Frequency
周波数対直列抵抗 V_R=1.5V, T_A=25°C



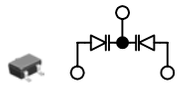
■ $C(T_A)/C(25°C)$ versus Reverse Voltage
逆方向電圧対$C(T_A)/C(25°C)$ f=1MHz T_A=-55 to +85°C



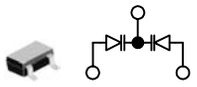
■ Capacitance Temperature Coefficient versus Reverse Voltage
逆方向電圧対温度係数 f=1MHz, T_A=25°C



9V series variable capacitance diode for FM tuning
9V系FMチューナ用電圧可変容量ダイオード



KV1735R
(SOT23C-3)



KV1735S
(SOT23-3)

FEATURES

- Included Twin Element
- Very Small Tolerance of Element Being Next Device To Each Other
- Excellent Linearity of The CV Curve
- Extra Large Capacitance Ratio: A=3.30 to
- Very Small Series Resistance: R_S=to 0.3Ω

- ツインタイプ素子1組搭載
- 小さい隣接デバイス間容量偏差
- CV特性の優れた直線性
- 極めて大きな容量変化比: A=3.30~
- 小さい直列抵抗: R_S=~0.3Ω

CLASSIFICATION

C \ Rank		1	2	3	4
C_2	MIN	68.86	70.81	72.80	74.85
	MAX	71.52	73.53	75.61	77.74

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	
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 MIN	Value TYP	Value MAX	Units 単位	Conditions 条件
Reverse Voltage 逆方向電圧	V_R	12			V	I_R=10μA
Reverse Current 逆方向電流	I_R			10.0	nA	V_R=10V
Diode Capacitance 容量値	C_2	68.86		77.74	pF	V_R=2.0V, f=1MHz
	C_6	26.39		36.69	pF	V_R=6.0V, f=1MHz
	C_9	16.91		22.25	pF	V_R=9.0V, f=1MHz
Series Resistance 直列抵抗	R_S			0.30	Ω	V_R=2.0V, f=100MHz
Capacitance Ratio 容量変化比	A	3.30		4.60		C_2/C_9

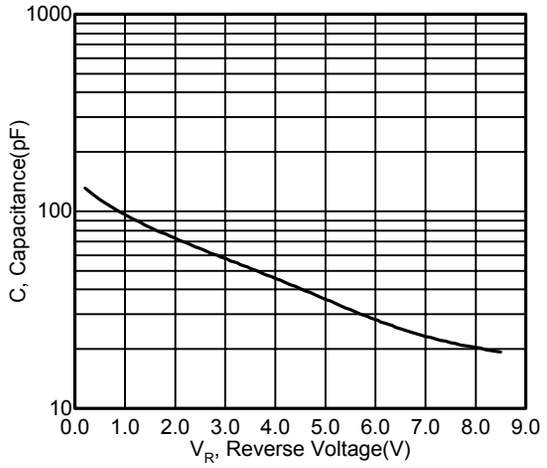
* Capacitance measured in parallel connections.
容量値は、Back to Back Typeの2つのダイオードの平均値です。

* 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。

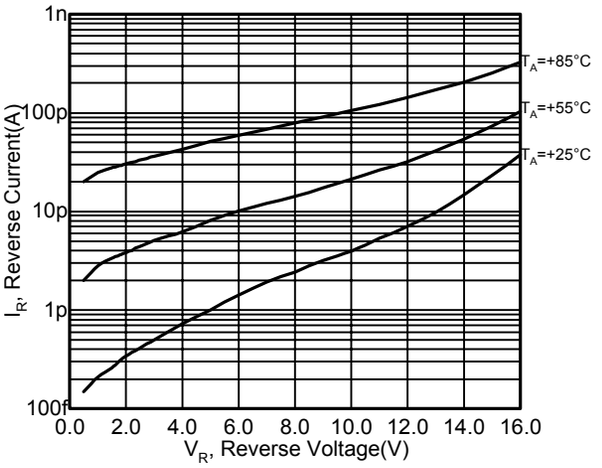
* Resistance meter is Agilent 4291B or equivalent instruments.
直列抵抗測定器は、Agilent 4291B又は相当品。

TYPICAL CHARACTERISTICS

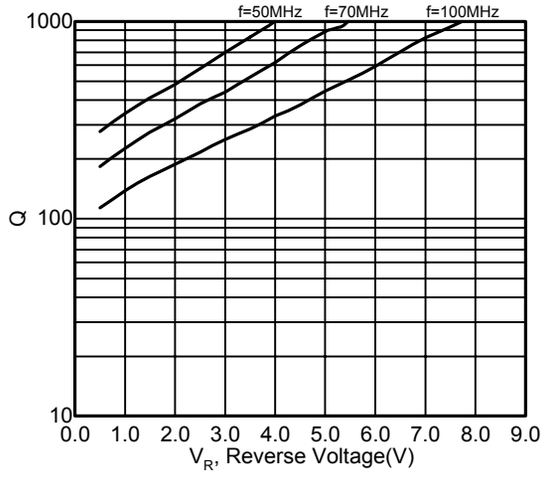
■ Capacitance versus Reverse Voltage
逆方向電圧対容量 f=1MHz, T_A=25°C



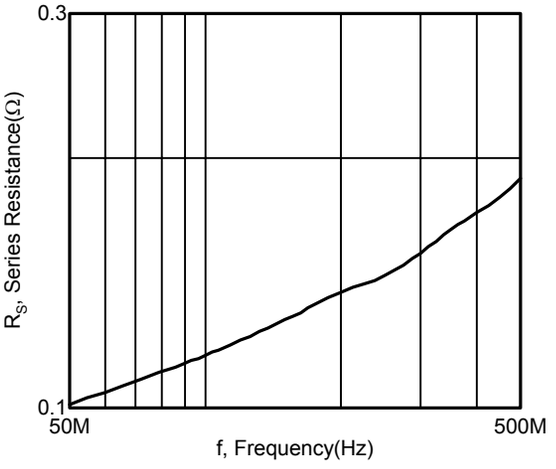
■ Reverse Current versus Reverse Voltage
逆方向電圧対逆電流 T_A=+25 / +55 / +85°C



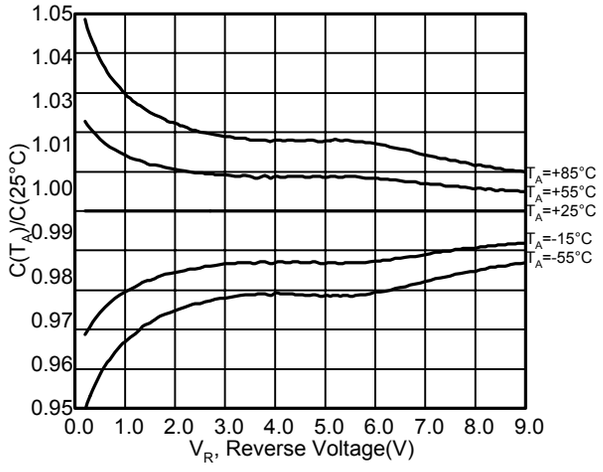
■ Q versus Reverse Voltage
逆方向電圧対Q T_A=25°C



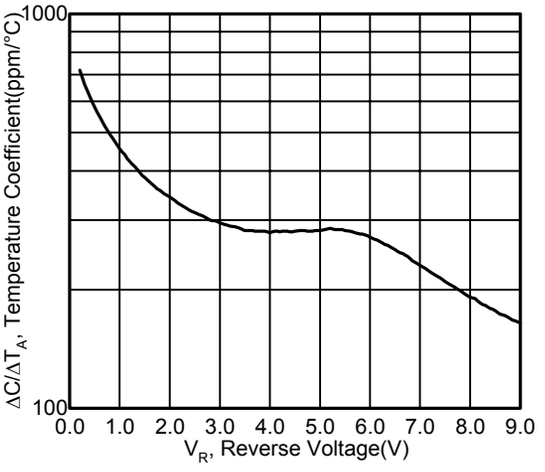
■ Series Resistance versus Frequency
周波数対直列抵抗 V_R=1.5V, T_A=25°C



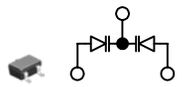
■ $C(T_A)/C(25°C)$ versus Reverse Voltage
逆方向電圧対$C(T_A)/C(25°C)$ f=1MHz T_A=-55 to +85°C



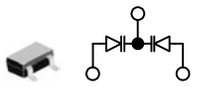
■ Capacitance Temperature Coefficient versus Reverse Voltage
逆方向電圧対温度係数 f=1MHz, T_A=25°C



8V series variable capacitance diode for FM tuning
8V系FMチューナ用電圧可変容量ダイオード



KV1740R
(SOT23C-3)



KV1740S
(SOT23-3)

FEATURES

- Included Twin Element
- Very Small Tolerance of Element Being Next Device To Each Other
- Excellent Linearity of The CV Curve
- Extra Large Capacitance Ratio: A=1.65 to
- Very Small Series Resistance: R_S=to 0.28Ω

- ツインタイプ素子1組搭載
- 小さい隣接デバイス間容量偏差
- CV特性の優れた直線性
- 極めて大きな容量変化比: A=1.65~
- 小さい直列抵抗: R_S=~0.28Ω

CLASSIFICATION

C \ Rank		1	2	3
C_2	MIN	42.92	44.13	45.37
	MAX	44.58	45.84	47.13

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	14	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 記号	Value MIN	Value TYP	Value MAX	Units 単位	Conditions 条件
Reverse Voltage 逆方向電圧	V_R	12			V	I_R=10μA
Reverse Current 逆方向電流	I_R			10.0	nA	V_R=10V
Diode Capacitance 容量値	C_2	42.92		47.13	pF	V_R=2.0V, f=1MHz
	C_8	24.61		28.57	pF	V_R=8.0V, f=1MHz
Series Resistance 直列抵抗	R_S			0.28	Ω	V_R=2.0V, f=100MHz
Capacitance Ratio 容量変化比	A	1.65		1.75		C_2/C_8

* Capacitance measured in parallel connections.
容量値は、Back to Back Typeの2つのダイオードの平均値です。

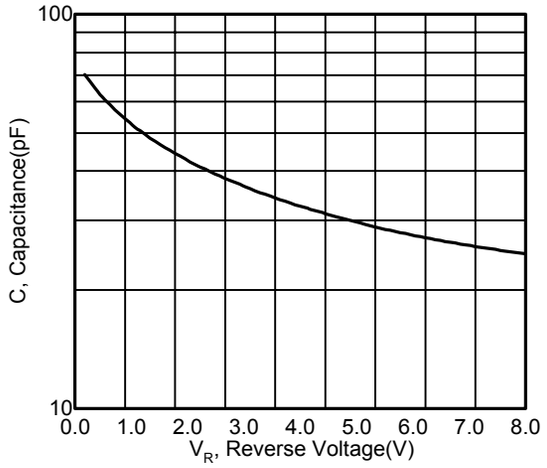
* Diode Capacitance measured with Agilent 4279A or equivalent instruments (at OSC level 20±5mVrms)
容量測定器は、Agilent 4279A又は相当品。OSCレベル 20±5mVrms。

* Resistance meter is Agilent 4291B or equivalent instruments.
直列抵抗測定器は、Agilent 4291B又は相当品。

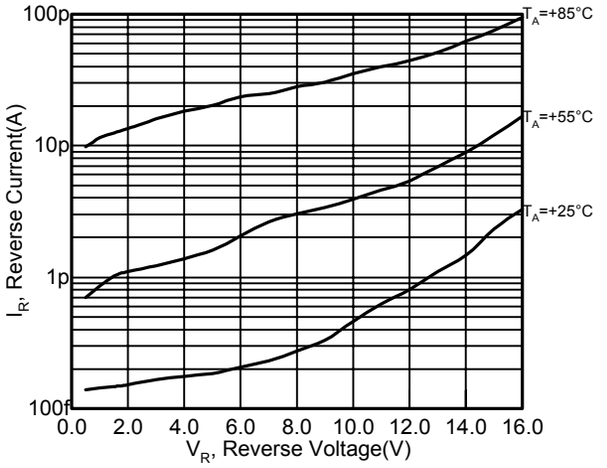
* The tolerance of element that is next to each other in same reel is within 3% at C_2 and C_8.
同一リール内で隣接する素子のC_2、C_8の容量偏差は3.0%以内。

TYPICAL CHARACTERISTICS

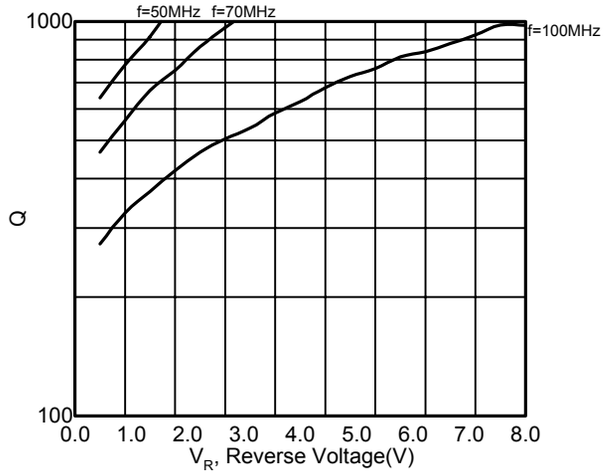
■ Capacitance versus Reverse Voltage
逆方向電圧対容量 f=1MHz, T_A=25°C



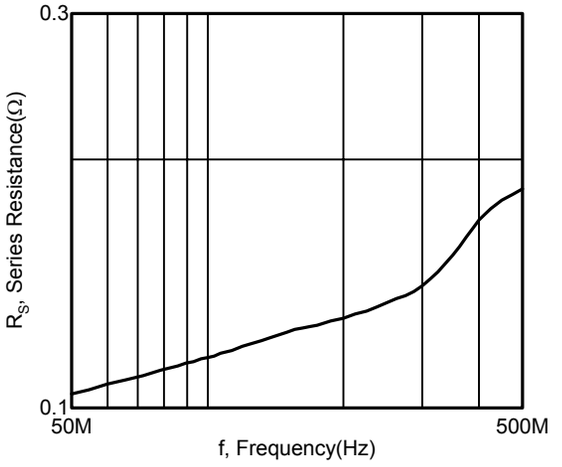
■ Reverse Current versus Reverse Voltage
逆方向電圧対逆電流 T_A=+25 / +55 / +85°C



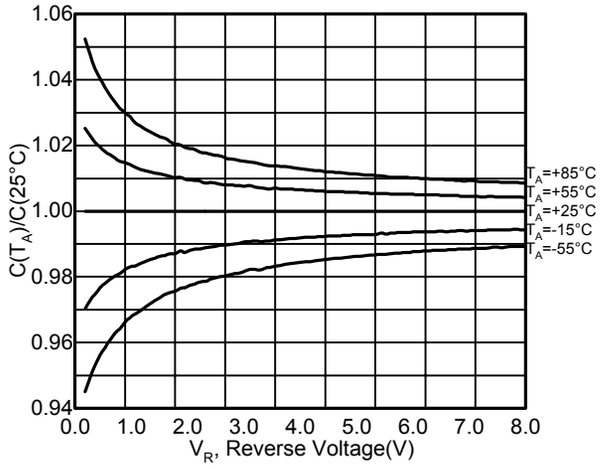
■ Q versus Reverse Voltage
逆方向電圧対Q T_A=25°C



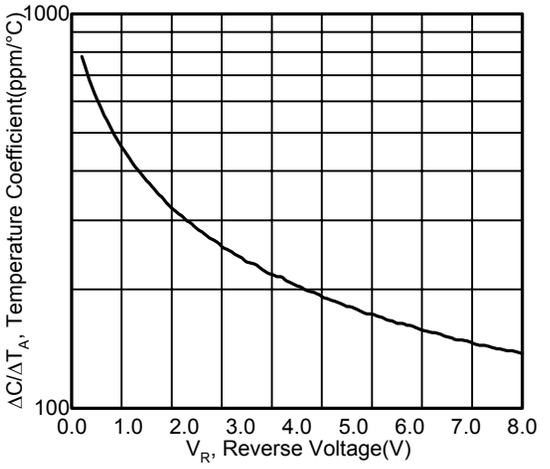
■ Series Resistance versus Frequency
周波数対直列抵抗 V_R=1.5V, T_A=25°C



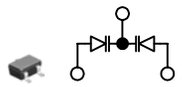
■ $C(T_A)/C(25°C)$ versus Reverse Voltage
逆方向電圧対$C(T_A)/C(25°C)$ f=1MHz T_A=-55 to +85°C



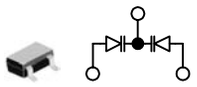
■ Capacitance Temperature Coefficient versus Reverse Voltage
逆方向電圧対温度係数 f=1MHz, T_A=25°C



8V series variable capacitance diode for FM tuning
8V系FMチューナ用電圧可変容量ダイオード



KV1745R
(SOT23C-3)



KV1745S
(SOT23-3)

FEATURES

- Included Twin Element
- Very Small Tolerance of Element Being Next Device To Each Other
- Excellent Linearity of The CV Curve
- Extra Large Capacitance Ratio: A=1.95 to
- Very Small Series Resistance: R_S=to 0.30Ω

- ツインタイプ素子1組搭載
- 小さい隣接デバイス間容量偏差
- CV特性の優れた直線性
- 極めて大きな容量変化比: A=1.95~
- 小さい直列抵抗: R_S=~0.30Ω

CLASSIFICATION

C \ Rank		1	2
C_2	MIN	43.53	44.75
	MAX	45.20	46.48

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	14	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 記号	Value MIN	Value TYP	Value MAX	Units 単位	Conditions 条件
Reverse Voltage 逆方向電圧	V_R	12			V	I_R=10μA
Reverse Current 逆方向電流	I_R			10.0	nA	V_R=10V
Diode Capacitance 容量値	C_2	43.53		46.48	pF	V_R=2.0V, f=1MHz
	C_8	18.38		23.85	pF	V_R=8.0V, f=1MHz
Series Resistance 直列抵抗	R_S			0.30	Ω	V_R=2.0V, f=100MHz
Capacitance Ratio 容量変化比	A	1.95		2.35		C_2/C_8

* Capacitance measured in parallel connections.
容量値は、Back to Back Typeの2つのダイオードの平均値です。

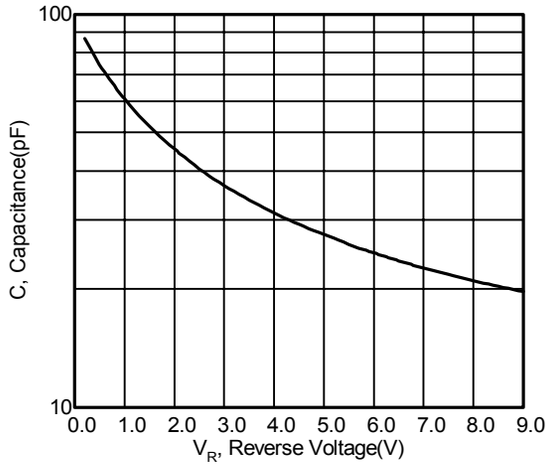
* Diode Capacitance measured with Agilent 4279A or equivalent instruments (at OSC level 20±5mVrms)
容量測定器は、Agilent 4279A又は相当品。OSCレベル 20±5mVrms。

* Resistance meter is Agilent 4291B or equivalent instruments.
直列抵抗測定器は、Agilent 4291B又は相当品。

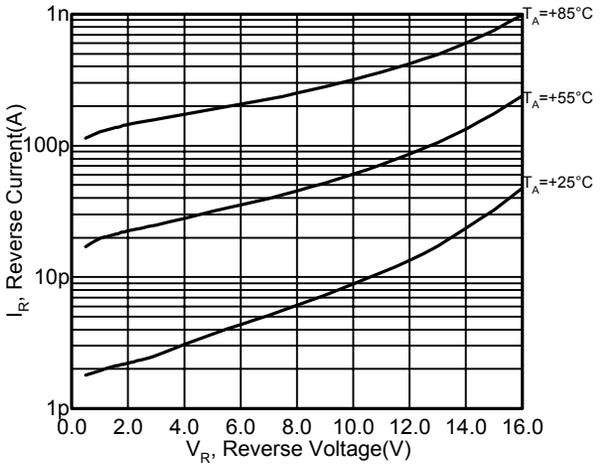
* The tolerance of element that is next to each other in same reel is within 3% at $C_2$and C_8.
同一リール内で隣接する素子のC_2、C_8の容量偏差は3.0%以内。

TYPICAL CHARACTERISTICS

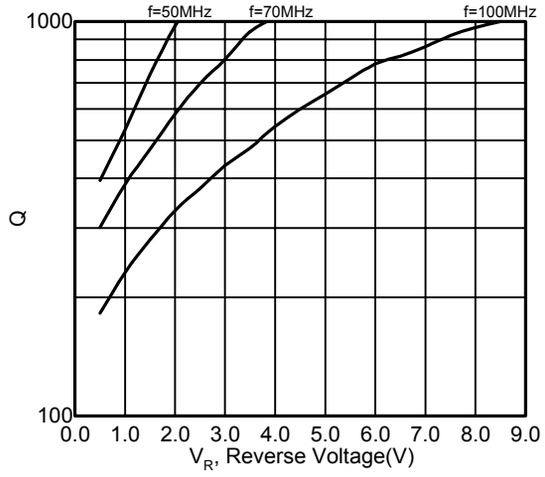
■ Capacitance versus Reverse Voltage
逆方向電圧対容量 f=1MHz, T_A=25°C



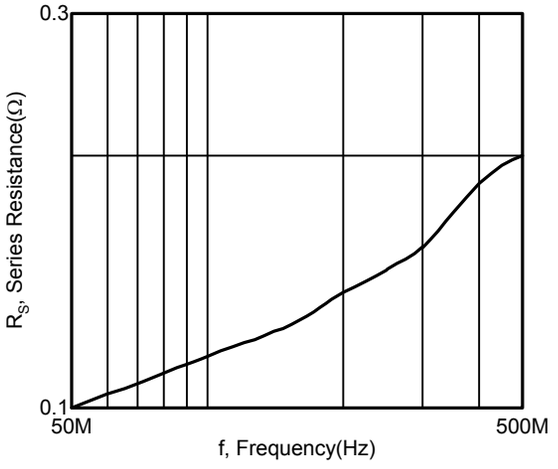
■ Reverse Current versus Reverse Voltage
逆方向電圧対逆電流 T_A=+25 / +55 / +85°C



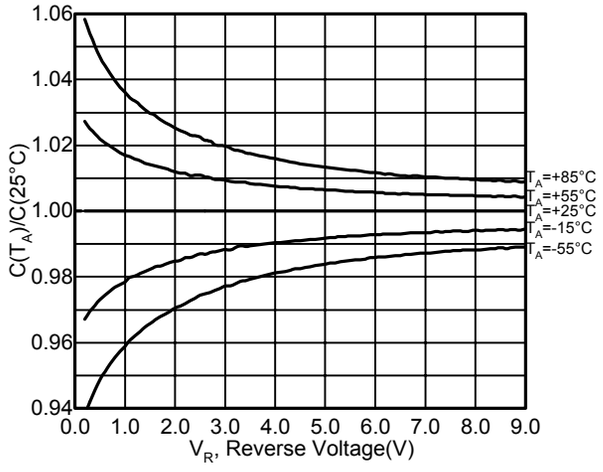
■ Q versus Reverse Voltage
逆方向電圧対Q T_A=25°C



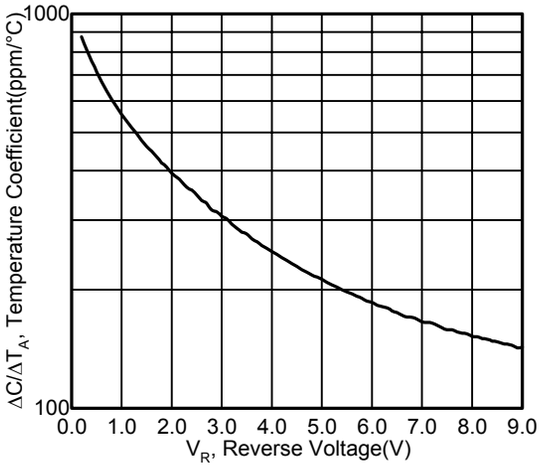
■ Series Resistance versus Frequency
周波数対直列抵抗 V_R=1.5V, T_A=25°C



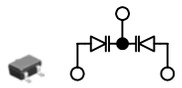
■ $C(T_A)/C(25°C)$ versus Reverse Voltage
逆方向電圧対$C(T_A)/C(25°C)$ f=1MHz T_A=-55 to +85°C



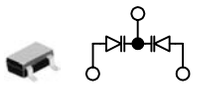
■ Capacitance Temperature Coefficient versus Reverse Voltage
逆方向電圧対温度係数 f=1MHz, T_A=25°C



4.5V series variable capacitance diode for FM tuning
4.5V系FMチューナ用電圧可変容量ダイオード



KV1770R
(SOT23C-3)



KV1770S
(SOT23-3)

FEATURES

- Included Twin Element
- Very Small Tolerance of Element Being Next Device To Each Other
- Excellent Linearity of The CV Curve
- Extra Large Capacitance Ratio: A=5.00 to
- Very Small Series Resistance: R_S=to 0.5Ω

- ツインタイプ素子1組搭載
- 小さい隣接デバイス間容量偏差
- CV特性の優れた直線性
- 極めて大きな容量変化比: A=5.00~
- 小さい直列抵抗: R_S=~0.5Ω

CLASSIFICATION

C \ Rank		1	2	3
C_1	MIN	65.80	68.27	70.74
	MAX	69.25	71.72	74.20

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	18	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 記号	Value MIN	Value TYP	Value MAX	Units 単位	Conditions 条件
Reverse Voltage 逆方向電圧	V_R	16			V	I_R=10μA
Reverse Current 逆方向電流	I_R			50.0	nA	V_R=10V
Diode Capacitance 容量値	C_1	65.80	70.00	74.20	pF	V_R=1V, f=1MHz
	$C_{4.5}$	12.00	13.40	14.80	pF	V_R=4.5V, f=1MHz
Series Resistance 直列抵抗	R_S		0.43	0.50	Ω	V_R=1.5V, f=100MHz
Capacitance Ratio 容量変化比	A	5.00				C_1/C_5

* Capacitance measured in parallel connections.
容量値は、Back to Back Typeの2つのダイオードの平均値です。

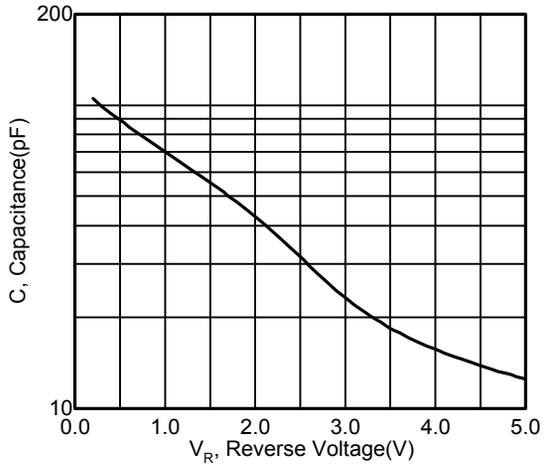
* Diode Capacitance measured with Agilent 4279A or equivalent instruments (at OSC level 20±5mVrms)
容量測定器は、Agilent 4279A又は相当品。OSCレベル 20±5mVrms。

* Resistance meter is Agilent 4291B or equivalent instruments.
直列抵抗測定器は、Agilent 4291B又は相当品。

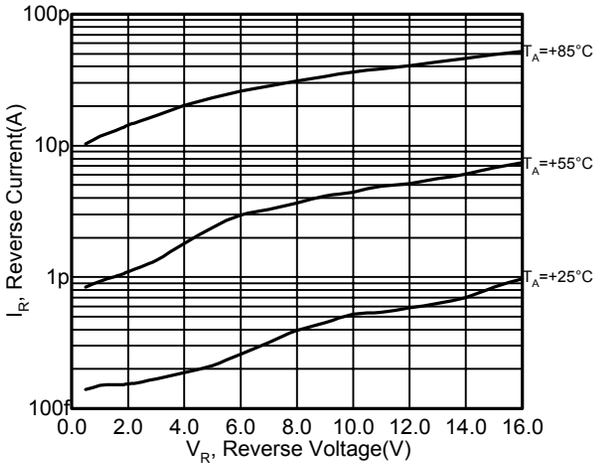
* The tolerance of element that is next to each other in same reel is within 6% at C_1, C_3 and $C_{4.5}$.
同一リール内で隣接する素子のC_1、C_3、$C_{4.5}$の容量偏差は6.0%以内。

TYPICAL CHARACTERISTICS

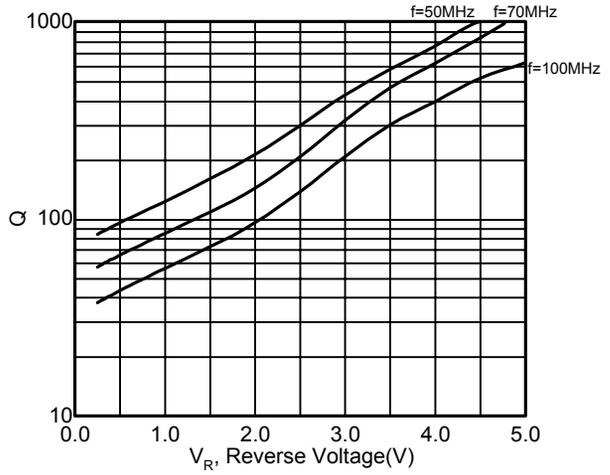
■ Capacitance versus Reverse Voltage
逆方向電圧対容量 f=1MHz, T_A=25°C



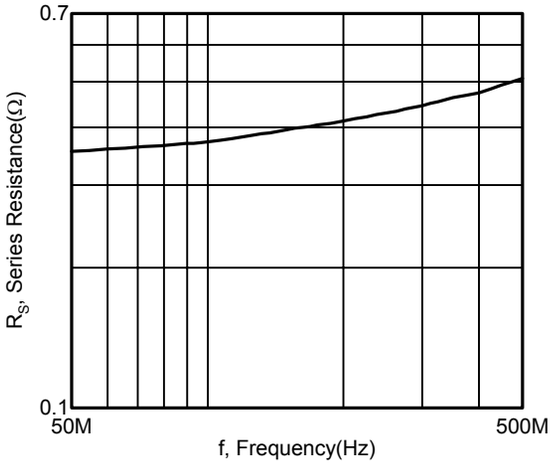
■ Reverse Current versus Reverse Voltage
逆方向電圧対逆電流 T_A=+25 / +55 / +85°C



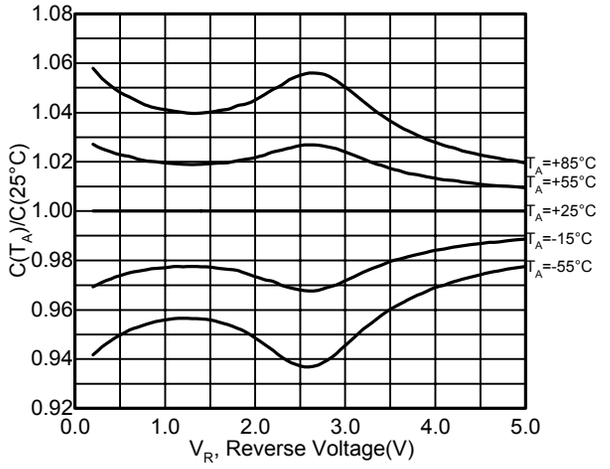
■ Q versus Reverse Voltage
逆方向電圧対Q T_A=25°C



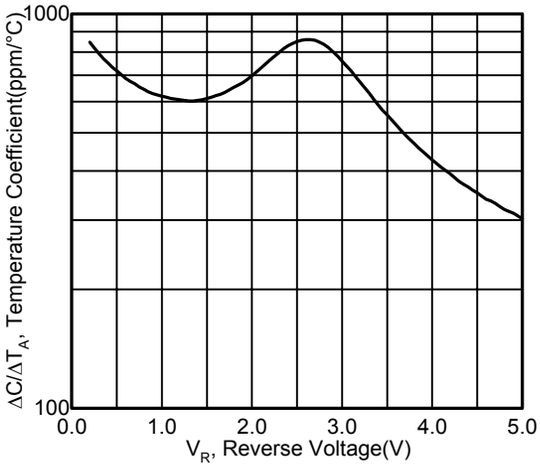
■ Series Resistance versus Frequency
周波数対直列抵抗 V_R=1.5V, T_A=25°C



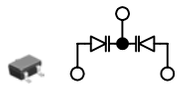
■ $C(T_A)/C(25°C)$ versus Reverse Voltage
逆方向電圧対$C(T_A)/C(25°C)$ f=1MHz T_A=-55 to +85°C



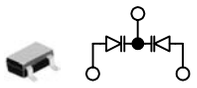
■ Capacitance Temperature Coefficient versus Reverse Voltage
逆方向電圧対温度係数 f=1MHz, T_A=25°C



3V series variable capacitance diode for FM tuning
3V系FMチューナ用電圧可変容量ダイオード



KV1780R
(SOT23C-3)



KV1780S
(SOT23-3)

FEATURES

- Included Twin Element
- Very Small Tolerance of Element Being Next Device To Each Other
- Very low operating voltage: V_{OP}=0.5 to 3.0V
- Excellent Linearity of The CV Curve
- Extra Large Capacitance Ratio: A=3.15 to
- Very Small Series Resistance: R_S=to 0.35Ω
- ツインタイプ素子1組搭載
- 小さい隣接デバイス間容量偏差
- 低電圧動作: V_{OP}=0.5~3.0V
- CV特性の優れた直線性
- 極めて大きな容量変化比: A=3.15~
- 小さい直列抵抗: R_S=~0.35Ω

CLASSIFICATION

C \ Rank		1	2	3
$C_{0.5}$	MIN	84.67	87.88	91.22
	MAX	88.77	92.14	95.64

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	14	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 記号	Value			Units 単位	Conditions 条件
		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			10.0	nA	V_R=10V
Diode Capacitance 容量値	$C_{0.5}$	84.67	90.20	95.64	pF	V_R=0.5V, f=1MHz
	C_3	21.00	24.80	28.59	pF	V_R=3.0V, f=1MHz
Series Resistance 直列抵抗	R_S		0.20	0.35	Ω	V_R=1.5V, f=100MHz
Capacitance Ratio 容量変化比	A	3.15	3.64			$C_{0.5}/C_3$

* Capacitance measured in parallel connections.
容量値は、Back to Back Typeの2つのダイオードの平均値です。

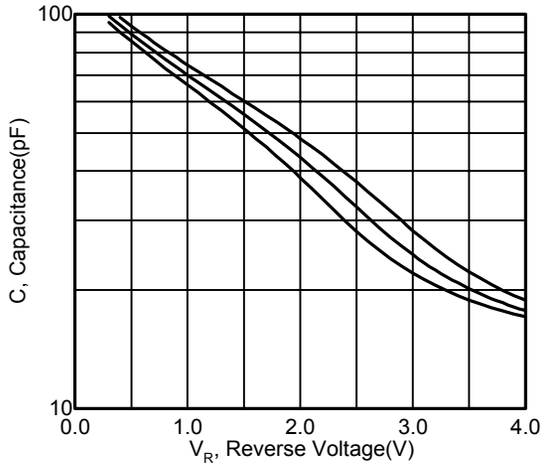
* Diode Capacitance measured with Agilent 4279A or equivalent instruments (at OSC level 20±5mVrms)
容量測定器は、Agilent 4279A又は相当品。OSCレベル 20±5mVrms。

* Resistance meter is Agilent 4291B or equivalent instruments.
直列抵抗測定器は、Agilent 4291B又は相当品。

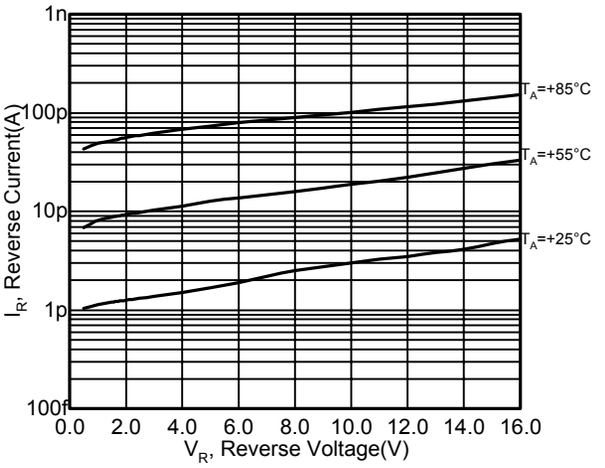
* The tolerance of element that is next to each other in same reel is within 5% at $C_{0.5}$ and C_3.
同一リール内で隣接する素子の$C_{0.5}$、C_3の容量偏差は5.0%以内。

TYPICAL CHARACTERISTICS

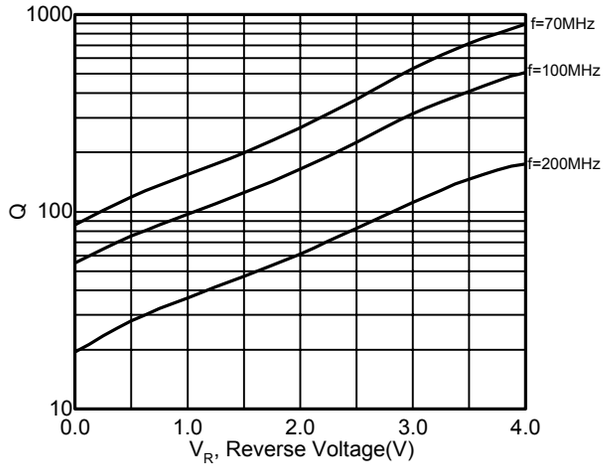
■ Capacitance versus Reverse Voltage
逆方向電圧対容量 f=1MHz, T_A=25°C



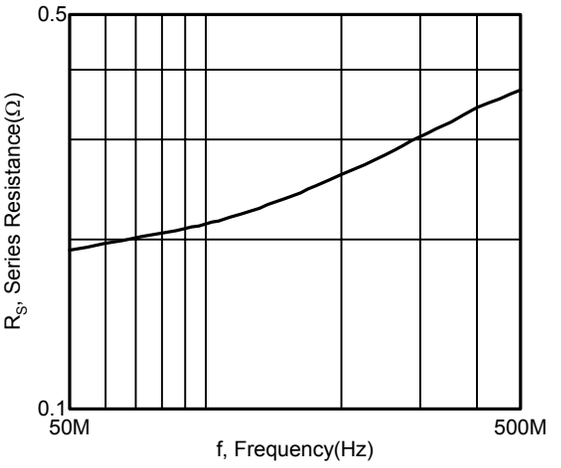
■ Reverse Current versus Reverse Voltage
逆方向電圧対逆電流 T_A=+25 / +55 / +85°C



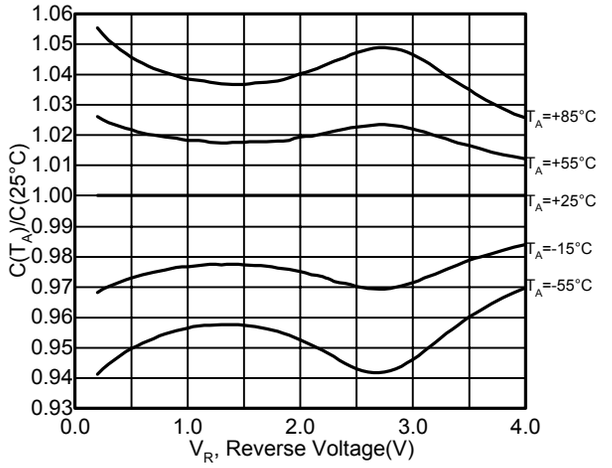
■ Q versus Reverse Voltage
逆方向電圧対Q T_A=25°C



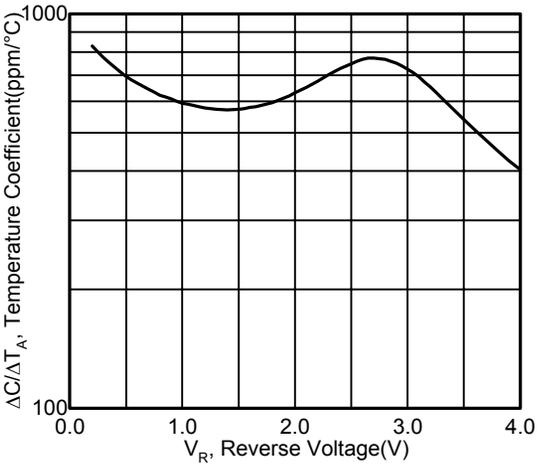
■ Series Resistance versus Frequency
周波数対直列抵抗 V_R=1.5V, T_A=25°C



■ $C(T_A)/C(25°C)$ versus Reverse Voltage
逆方向電圧対$C(T_A)/C(25°C)$ f=1MHz T_A=-55 to +85°C



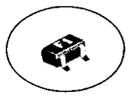
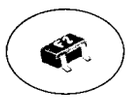
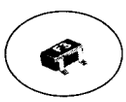
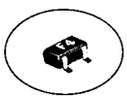
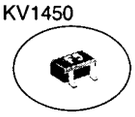
■ Capacitance Temperature Coefficient versus Reverse Voltage
逆方向電圧対温度係数 f=1MHz, T_A=25°C



FM TUNING

Part. No.	Group	No. of Elements	Reverse Voltage V_R (V)	Capacitance Spec. CD min/CD max (pF)	Capacitance Cond. V_R (V)	Capacitance Ratio Spec. CD1/CD2 min/max	Capacitance Ratio Cond. V_{R1}/V_{R2} (V)	Q at Resonance Spec. Q	Q at Resonance Cond. V_R (V)	Capacitance Deviation Spec. ΔC (%)	Capacitance Deviation Cond. V_R (V)	Taping
KV1310NT 	1	1 Back to Back	18	41.51/42.59	2	2.2/2.42	2/8	0.5	2			C
	2			42.49/43.79	2							
	3			43.69/45.02	2							
	4			44.92/46.29	2							
KV1310A-2 	4	2 Back to Back	18	44.81/46.16	2	2.0/2.6	2/8	0.5	2	3	2	
	5			43.93/45.26	2					3	4	
	6			43.07/44.37	2					3	6	
	7			42.23/43.50	2					3	8	
	8			41.40/42.64	2							
KV1310A-3 	4	3 Back to Back	18	44.81/46.16	2	2.0/2.6	2/8	0.5	2	3	2	
	5			43.93/45.26	2					3	4	
	6			43.07/44.37	2					3	6	
	7			42.23/43.50	2					3	8	
	8			41.40/42.64	2							
KV1320 	1	1 Back to Back	30	44.81/46.16	7	2.57/3.03	7/25	0.5	7	3	7	C
	2			43.93/45.26	7					3	13	
	3			43.07/44.37	7					3	19	
	4			42.23/43.50	7					3	25	
	5			41.40/42.64	7							
	6			40.50/41.81	7							
	7			39.79/40.99	7							
KV1330NT 	2	1 Back to Back	18	69.14/71.23	2	3.7/5.0	2/9	0.5	2			C
	3			71.19/73.24	2							
	4			73.09/75.31	2							
	5			75.15/77.43	2							
KV1330A-1 	3	1 Back to Back	18	74.97/80.38	2	3.7/5.0	2/9	0.5	2			
	4			73.50/78.80	2							
	5			72.03/77.22	2							
	6			70.66/75.74	2							
	7			69.23/74.21	2							
	8			67.91/72.83	2							
KV1330A-2 	3	2 Back to Back	18	76.50/78.80	2	3.7/5.0	2/9	0.5	2	3	2	
	4			75.00/77.25	2					3	4	
	5			73.50/75.70	2					3	6	
	6			72.10/74.25	2					3	9	
	7			70.65/72.75	2							
	8			69.30/71.40	2							
KV1330A-3 	3	3 Back to Back	18	76.50/78.80	2	3.7/5.0	2/9	0.5	2	3	2	
	4			75.00/77.25	2					3	4	
	5			73.50/75.70	2					3	6	
	6			72.10/74.25	2					3	9	
	7			70.65/72.75	2							
	8			69.30/71.40	2							
KV1350NT 	1	1 Back to Back	18	59.15/60.90	2	4.6/—	1/9	60	3			C
	2			60.30/62.10	2							
	3			61.50/63.35	2							
	4			62.75/64.65	2							
	5			64.00/65.90	2							

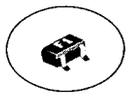
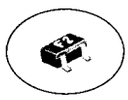
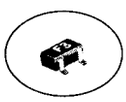
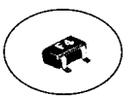
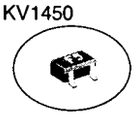
FM TUNING

Part. No.	Group	No. of Elements	Reverse Voltage V_R (V)	Capacitance Spec. CD min/CD max (pF)	Capacitance Cond. V_R (V)	Capacitance Ratio Spec. CD1/CD2 min/max	Capacitance Ratio Cond. V_{R1}/V_{R2} (V)	Q at Resonance Spec. Q	Q at Resonance Cond. V_R (V)	Capacitance Deviation Spec. ΔC (%)	Capacitance Deviation Cond. V_R (V)	Taping
KV1340A-3 	1	3 Back to Back	18	41.70/43.80	2	1.55/1.85	2/8	0.5	2	3	2	
	2			43.00/44.80	2					3	4	
	3			44.00/45.80	2					3	6	
	4			45.00/46.80	2					3	8	
	5			46.00/48.10	2							
	6			47.10/48.60	2							
KV1410 	1	1 Back to Back	18	41.33/42.59	2	2.0/2.6	2/8	0.5	2			A
	2			42.49/43.79	2							
	3			43.69/45.02	2							
	4			44.92/46.29	2							
KV1420 	1	1 Back to Back	30	44.81/46.16	7	2.57/3.03	7/25	0.5	7			A
	2			43.93/45.26	7							
	3			43.07/44.37	7							
	4			42.23/43.50	7							
	5			41.40/42.64	7							
	6			40.59/41.81	7							
	7			39.79/40.99	7							
KV1430 	2	1 Back to Back	18	69.13/71.23	2	3.7/5.0	2/9	0.5	2			A
	3			71.08/73.24	2							
	4			73.09/75.31	2							
	5			75.15/77.43	2							
KV1440 	1	1 Back to Back	18	43.00/44.60	2	1.65/1.75	2/8	100	3			A
	2			44.00/45.60	2							
	3			45.00/46.60	2							
	4			46.00/47.60	2							
KV1450 		1 Back to Back	18	59.15/65.90	1	4.6/—	1/9	60	3			A

MARKING LIST

MARK	PART No.
310	KV1310NT, KV1310A-2, KV1310A-3
320	KV1320, (KV1320N)
330	KV1330A-1, KV1330A-2, KV1330A-3, KV1330NT
340	KV1340A-3
350	KV1350NT
F1	KV1410
F2	KV1420
F3	KV1430
F4	KV1440
F5	KV1450

FM TUNING

Part. No.	Group	No. of Elements	Reverse Voltage V_R (V)	Capacitance Spec. CD min/CD max (pF)	Capacitance Cond. V_R (V)	Capacitance Ratio Spec. CD1/CD2 min/max	Capacitance Ratio Cond. V_{R1}/V_{R2} (V)	Q at Resonance Spec. Q	Q at Resonance Cond. V_R (V)	Capacitance Deviation Spec. ΔC (%)	Capacitance Deviation Cond. V_R (V)	Taping
KV1340A-3 	1	3 Back to Back	18	41.70/43.80	2	1.55/1.85	2/8	0.5	2	3	2	
	2			43.00/44.80	2					3	4	
	3			44.00/45.80	2					3	6	
	4			45.00/46.80	2					3	8	
	5			46.00/48.10	2							
	6			47.10/48.60	2							
KV1410 	1	1 Back to Back	18	41.33/42.59	2	2.0/2.6	2/8	0.5	2			A
	2			42.49/43.79	2							
	3			43.69/45.02	2							
	4			44.92/46.29	2							
KV1420 	1	1 Back to Back	30	44.81/46.16	7	2.57/3.03	7/25	0.5	7			A
	2			43.93/45.26	7							
	3			43.07/44.37	7							
	4			42.23/43.50	7							
	5			41.40/42.64	7							
	6			40.59/41.81	7							
	7			39.79/40.99	7							
KV1430 	2	1 Back to Back	18	69.13/71.23	2	3.7/5.0	2/9	0.5	2			A
	3			71.08/73.24	2							
	4			73.09/75.31	2							
	5			75.15/77.43	2							
KV1440 	1	1 Back to Back	18	43.00/44.60	2	1.65/1.75	2/8	100	3			A
	2			44.00/45.60	2							
	3			45.00/46.60	2							
	4			46.00/47.60	2							
KV1450 		1 Back to Back	18	59.15/65.90	1	4.6/—	1/9	60	3			A

MARKING LIST

MARK	PART No.
310	KV1310NT, KV1310A-2, KV1310A-3
320	KV1320, (KV1320N)
330	KV1330A-1, KV1330A-2, KV1330A-3, KV1330NT
340	KV1340A-3
350	KV1350NT
F1	KV1410
F2	KV1420
F3	KV1430
F4	KV1440
F5	KV1450

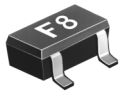
特　長

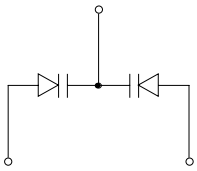
VCO用(テーピング供給)

- ●ひとつの面実装PKGにツインタイプの素子を1組搭載。
- ●テーピングにおいて隣接デバイスとの容量偏差が小さい。
- ●1V～8Vの低電圧で動作し、CV特性の直線性が優れている。
- ●容量変化比が極めて大きい。

外形図

SOT23-3





絶対最大定格

Ta＝25℃

項　目	記　号	定　格	単　位
逆方向電圧	V_R	18	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	Tstg	－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	15			V	I_R＝10μA
逆方向電流	I_R			100	nA	V_R＝9V
容量値	C_2	131		161.5	pF	V_R＝2V, f＝1MHz
	C_4	64		101	pF	V_R＝4V, f＝1MHz
	C_8	16		23	pF	V_R＝8V, f＝1MHz
直列抵抗	Rs			1.0	Ω	V_R＝3V, f＝70MHz
容量変化比	A	6.5				C_2／C_8, f＝1MHz

※　容量値はBack to Back Typeの2つのダイオードの平均値です。

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

※　直列抵抗測定器は、YHP 4191 A 又は相当品。

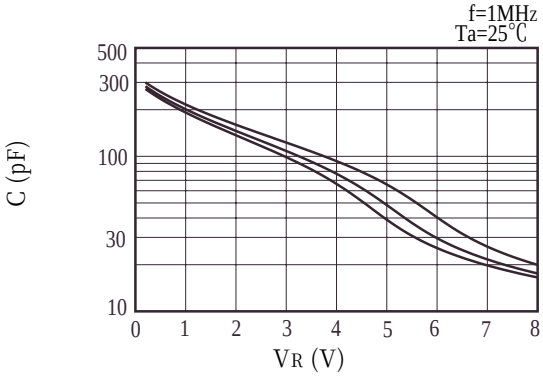
ランク分類

（単位：pF）

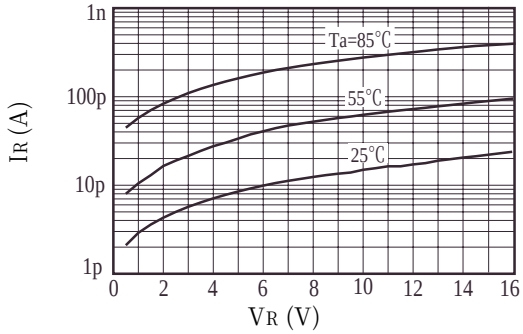
C / Rank		A	B	C
C2	MIN	131.0	140.5	150.0
	MAX	142.5	152.0	161.5

特性曲線

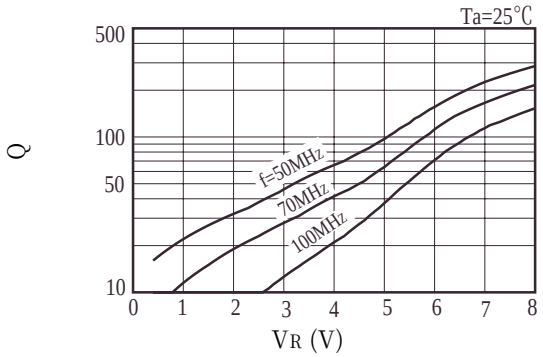
逆電圧　対　容量



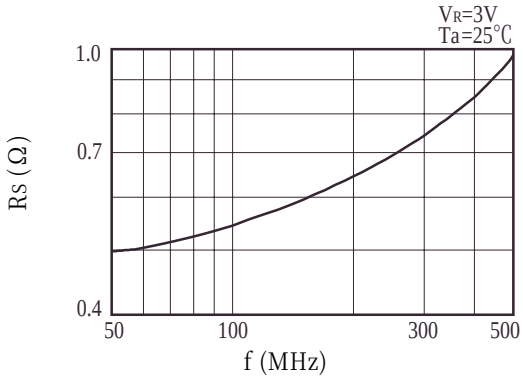
逆電圧　対　逆電流特性



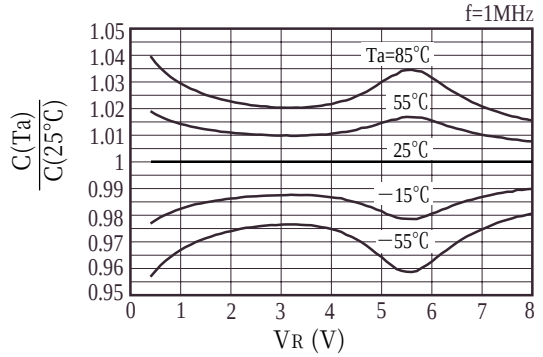
逆電圧　対　Q



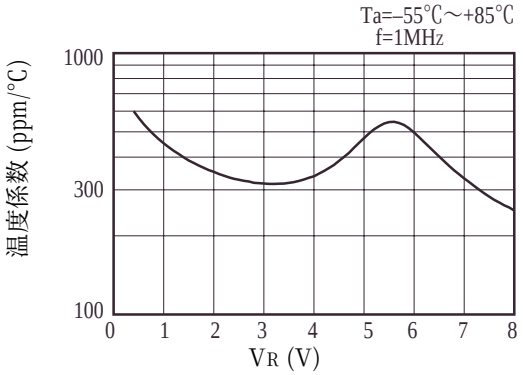
周波数　対　Rs



逆電圧　対　$\frac{C(Ta)}{C(25℃)}$



逆電圧　対　温度係数



KV1832K

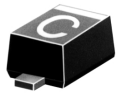
TOKO

特　長

VCO用(テーピング供給)
- ●極小面実装PKGに1素子搭載。
- ●テーピングにおいて隣接デバイスとの容量偏差が小さい。
- ●1V～4Vの低電圧で動作し、CV特性の直線性が優れている。
- ●容量変化比が大きく、直列抵抗が小さい。

外形図

UFD



絶対最大定格

Ta＝25℃

項　目	記　号	定　格	単　位
逆方向電圧	V_R	28	V
順方向電流	I_F	10	mA
許容消費電力	P_D	50	mW
保存温度範囲	Tstg	－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＝10μA
逆方向電流	I_R			5.0	nA	V_R＝16V
容量値	C_1	15.40	16.60	17.90	pF	V_R＝ 1V, f＝1MHz
	C_2	8.50	10.20	11.90	pF	V_R＝ 2V, f＝1MHz
	C_4	3.60	4.30	5.05	pF	V_R＝ 4V, f＝1MHz
直列抵抗	R_S			0.7	Ω	7pF, f＝470MHz
容量変化比	A	3.4				C_1／C_4

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

※　直列抵抗測定器は、YHP 4191 A 又は相当品。

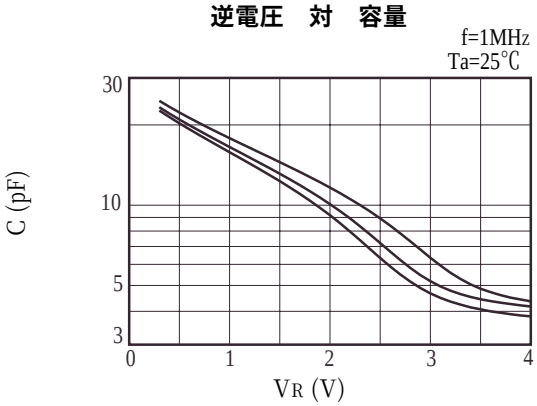
ランク分類

（単位：pF）

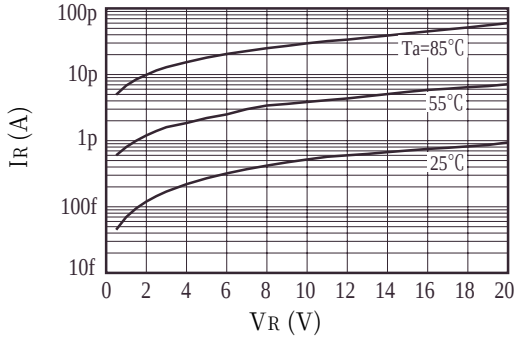
C / Rank		1	2	3
C2	MIN	8.50	9.50	10.60
	MAX	9.80	10.90	11.90

特性曲線

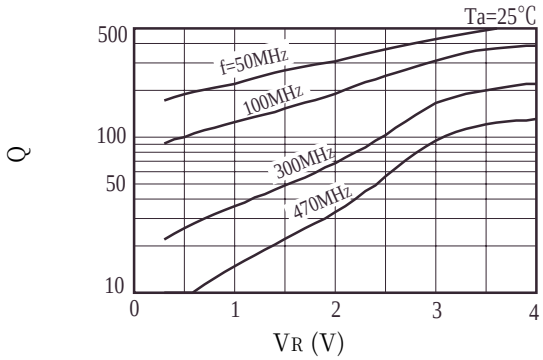
逆電圧　対　容量



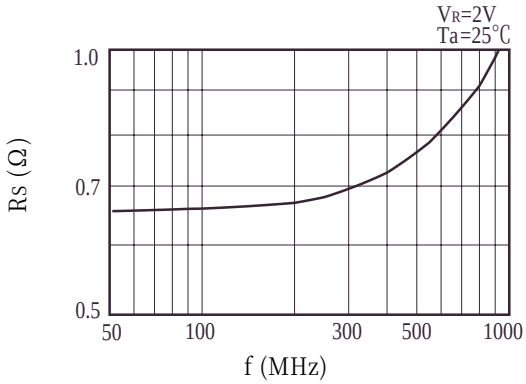
逆電圧　対　逆電流特性



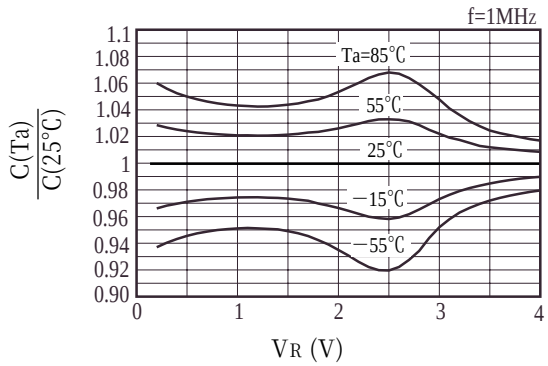
逆電圧　対　Q



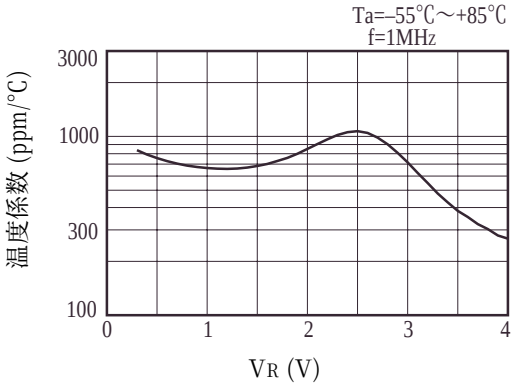
周波数　対　Rs



逆電圧　対　$\frac{C(Ta)}{C(25℃)}$



逆電圧　対　温度係数



通信機用