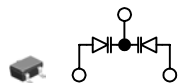
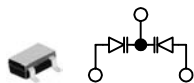


9V series variable capacitance diode for FM tuning

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 0.3 Ω
- 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 =~0.3 Ω

CLASSIFICATION

Rank		1	2	3	4
C	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		$^{\circ}\text{C}$			
Operating Temperature Range	動作温度範囲	T_{OP}		-55 to +85		$^{\circ}\text{C}$			

ELECTRICAL CHARACTERISTICS

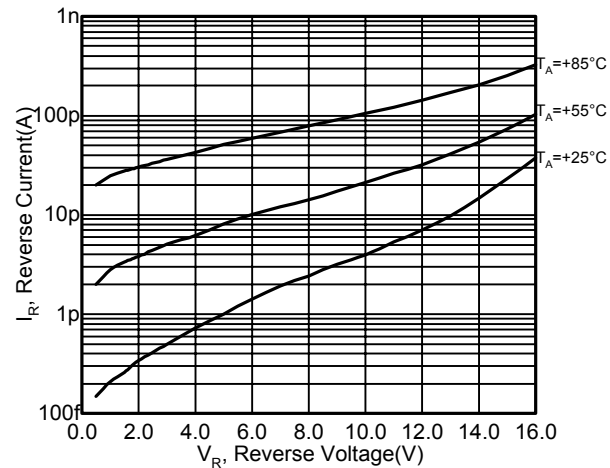
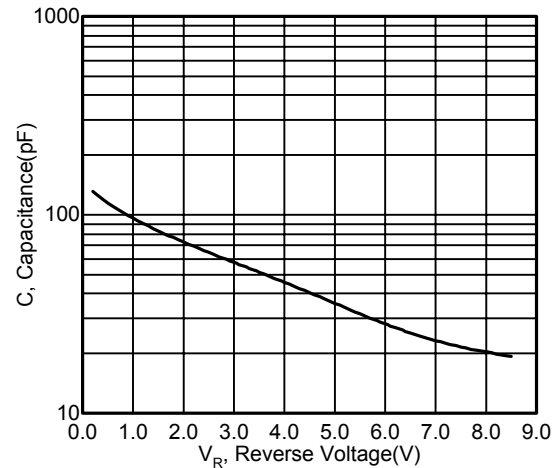
$T_A=25^{\circ}\text{C}$

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	12		V	$I_R=10\mu\text{A}$
Reverse Current	逆方向電流	I_R		10.0	nA	$V_R=10\text{V}$
Diode Capacitance	容量値	C_2	68.86	77.74	pF	$V_R=2.0\text{V}, f=1\text{MHz}$
		C_6	26.39	36.69	pF	$V_R=6.0\text{V}, f=1\text{MHz}$
		C_9	16.91	22.25	pF	$V_R=9.0\text{V}, f=1\text{MHz}$
Series Resistance	直列抵抗	R_S		0.30	Ω	$V_R=2.0\text{V}, f=100\text{MHz}$
Capacitance Ratio	容量変化比	A	3.30	4.60		C_2/C_9

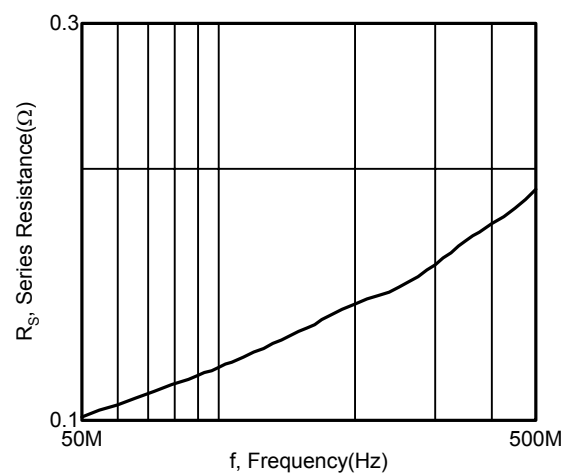
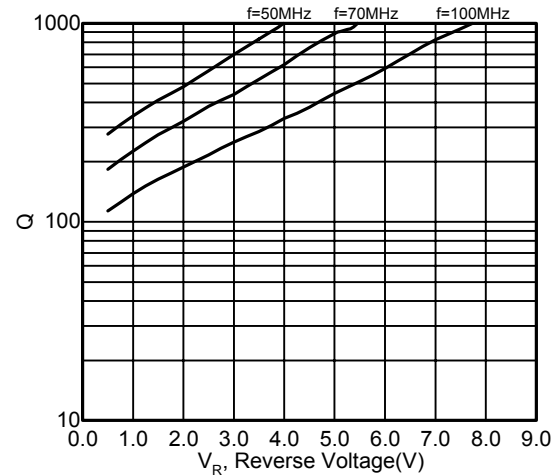
- * Capacitance measured in parallel connections.
容量値は、Back to Back Typeの2つのダイオードの平均値です。
- * Diode Capacitance measured with Agilent 4279A or equivalent instruments (at OSC level 20 $\pm$ 5mVrms)
容量測定器は、Agilent 4279A又は相当品。OSCレベル 20 $\pm$ 5mVrms。
- * Resistance meter is Agilent 4291B or equivalent instruments.
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, TA=25°C Reverse Current versus Reverse Voltage 逆方向電圧対逆電流 TA=+25 / +55 / +85°C



Q versus Reverse Voltage 逆方向電圧対Q TA=25°C Series Resistance versus Frequency 周波数対直列抵抗 VR=1.5V, TA=25°C



C(TA)/C(25°C) versus Reverse Voltage 逆方向電圧対C(TA)/C(25°C) f=1MHz TA=-55 to +85°C Capacitance Temperature Coefficient versus Reverse Voltage 逆方向電圧対温度係数 f=1MHz, TA=25°C

