Variable capacitance diode for AM tuning
AMチューナ用電圧可変容量ダイオード

KV1270NT, KV1610S, KV1613L

FEATURES

- Included Twin Element: KV1270NT, KV1610S
- Included Cathode-common Triple Element: KV1613L
- Excellet 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

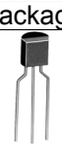
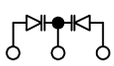
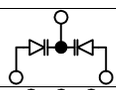
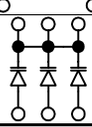
C \ Rank		1	2
C_1	MIN	446.0	475.0
	MAX	481.0	510.0

ORDERING INFORMATION

- KV1270NT
- KV1610STL…Storage direction: TL(Left type)
- KV1613LTL…Storage direction: TL(Left type)

* Part name + Storage direction

PACKAGE OUTLINE

Part name	Package	Marking	Pin configulation
KV1270NT	 TO92-3	270	
KV1610S	 SOT23-3	610	
KV1613L	 SOT23L-6	613	

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		KV1610S
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 CHARCTERISTICS

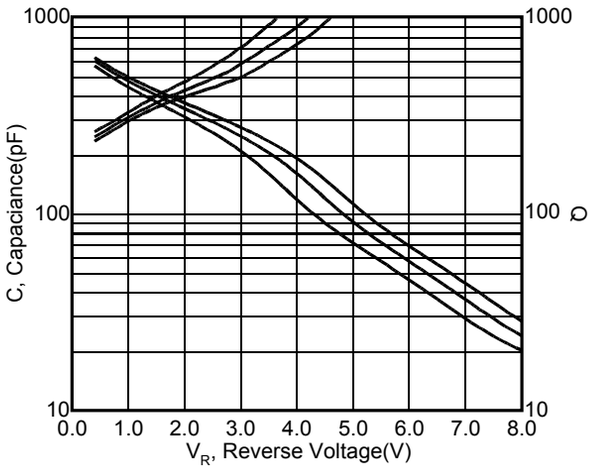
T_A=25°C

Parameter 項目	Symbol 記号	Value 規格 MIN	TYP	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			100	nA	V_R=10V	
Diode Capacitance 容量値	C_1	446.0		510.0	pF	V_R=1V, f=1MHz	
	C_8	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	C_1/C_8
		18.5				KV1610S, KV1613L	

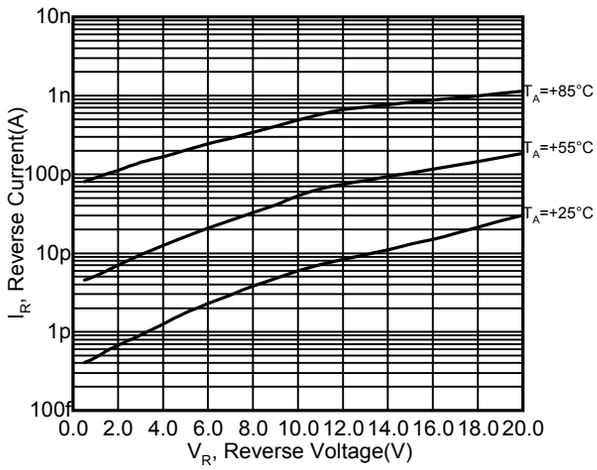
* Diode Capactance measured with Agilent 4279A or equivalent instruments (at OSC level 20±5mVrms)
容量測定器は、Agilent 4279A又は相当品。OSCレベル 20±5mVrms。

TYPICAL PREFORAMNCE CHARACTERISTICS

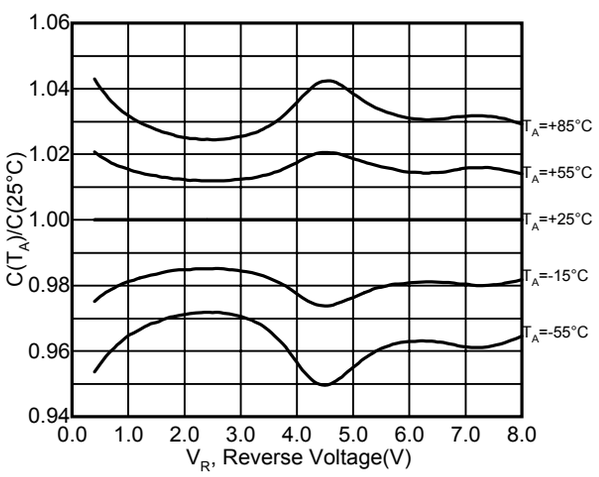
■ Capacitance, Q versus Reverse Voltage
逆方向電圧対容量、Q　f=1MHz, T_A=25°C



■ 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