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

KV1560, KV1560NT, KV1562M, KV1563M, KV1563BM

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

C \ 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	KV1560, KV1560NT
		16		KV1562M,KV1563M, KV1563BM
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 MIN	TYP	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			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	%	KV1560, KV1560NT	V_R=1V, f=1MHz*1
				1.2		KV1562M	
				1.1		KV1563M	
				2		KV1563BM	
	$\Delta C_{4.5}$			2.0	%	KV1560, KV1560NT	V_R=4.5V, f=1MHz*1
				2.2		KV1562M	
				2.1		KV1563M	
				3		KV1563BM	
	ΔC_8			2.0	%	KV1560, KV1560NT	V_R=8V, f=1MHz*1
				2.2		KV1562M	
				2.1		KV1563M	
				3		KV1563BM	
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。

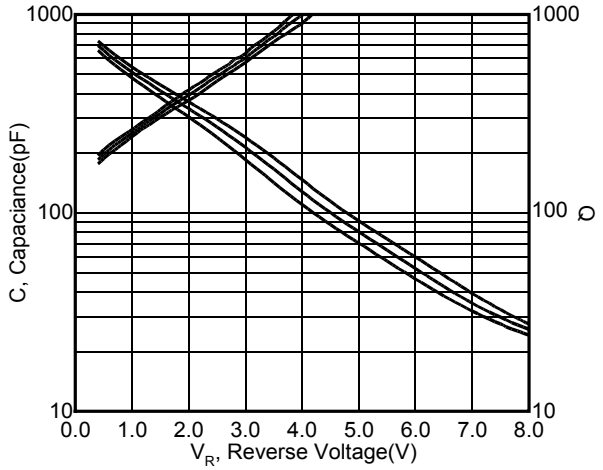
*1 $(C_{MAX}-C_{MIN})/C_{MIN}\times100$

PACKAGE OUTLINE / ORDERING INFORMATION

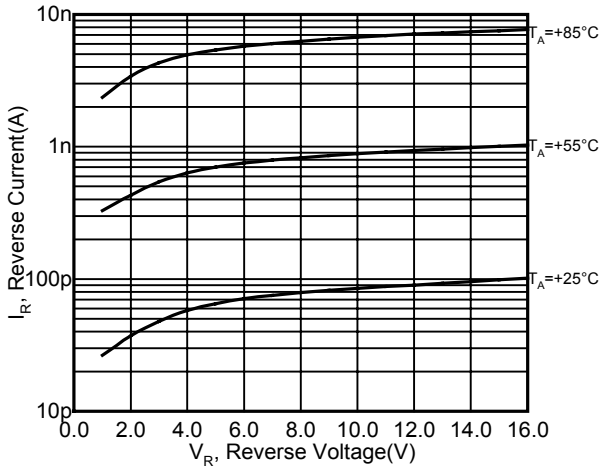
Part name	Package	Marking	Pin configuration	Ordering information
KV1560	SOT23L-3	A6		KV1560NT
KV1560NT	TO92-3	560		KV1560TL…Storage direction: TL(Left type)
KV1562M	SOP-8	562		KV1562MTL…Storage direction: TL(Left type)
KV1563M	SOP-8	563		KV1563MTL…Storage direction: TL(Left type)
KV1563BM	SOP-8	63B		KV1563BMTL…Storage direction: TL(Left type)

TYPICAL CHARCTERISTICS

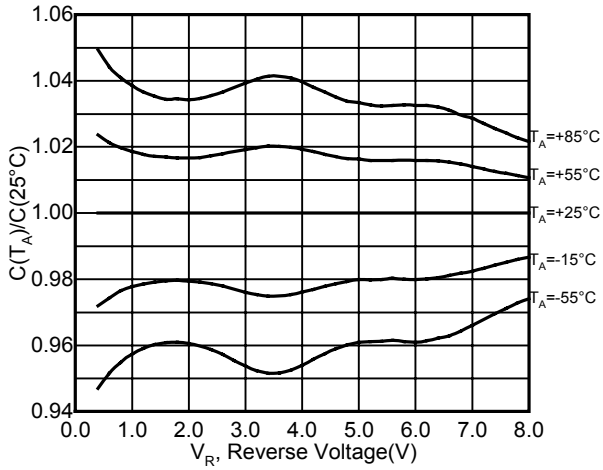
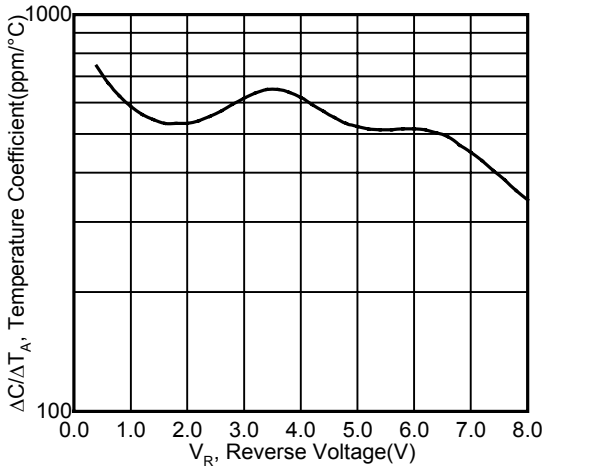
■ Capacitance, Q versus Reverse Voltage
逆方向電圧対容量、Q
f=1MHz, T_A=25°C



■ 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