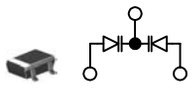
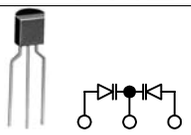
6.5Vseries variable capacitance diode for AM tuning
6.5V系AMチューナ用電圧可変容量ダイオード



KV1520
(SOT23L-3)



KV1520NT
(TO92-3)

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}=1.0~6.5V
- 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~
- 極めて大きな容量変化比: A=20~

CLASSIFICATION

C \ 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°C

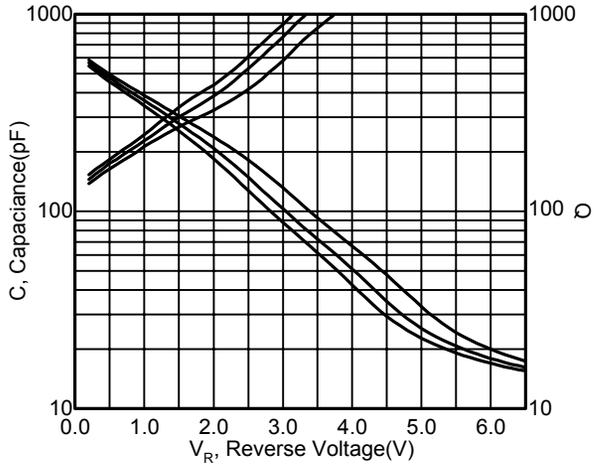
Parameter 項目	Symbol 記号	Value MIN	Value TYP	Value MAX	Units 単位	Conditions 条件
Reverse Voltage 逆方向電圧	V_R	16			V	I_R=10μA
Reverse Current 逆方向電流	I_R			50	nA	V_R=10V
Diode Capacitance 容量値	C_1	335.0	360.0	395.0	pF	V_R=1V, f=1MHz
	C_3		100.0		pF	V_R=3V, f=1MHz
	$C_{6.5}$	14.0	15.9	17.8	pF	V_R=6.5V, f=1MHz
Capacitance 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±5mVrms)
容量測定器は、Agilent 4279A又は相当品。OSCレベル 20±5mVrms。

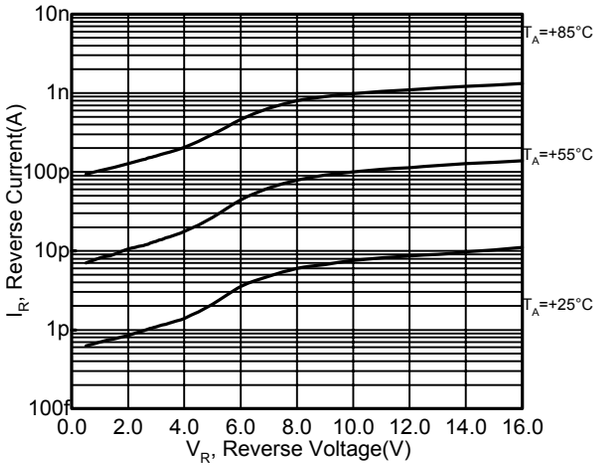
*[1] $(C_{MAX}-C_{MIN})/C_{MIN}\times 100$

TYPICAL CHARACTERISTICS

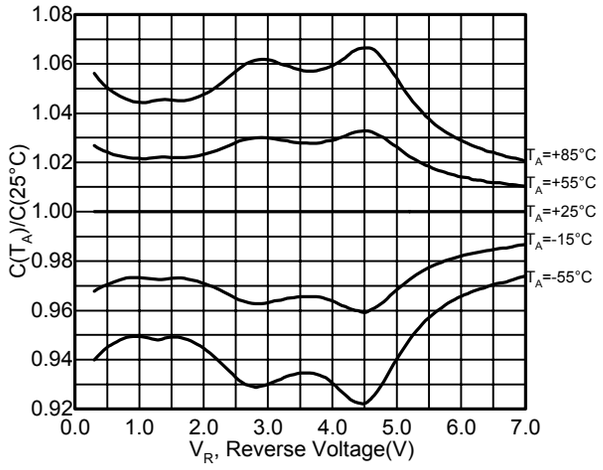
■ Capacitance, Q versus Reverse Voltage
逆方向電圧対容量、Q
f=1MHz, T_A=25°C



■ 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