



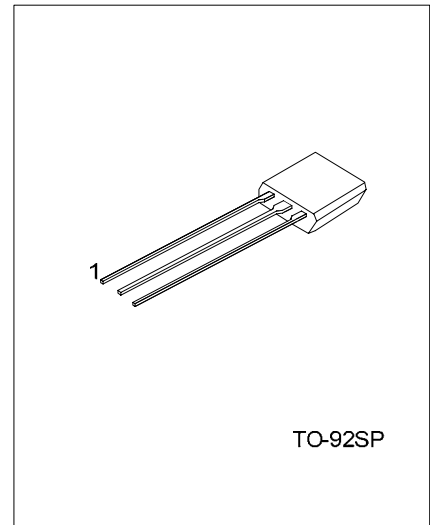
K596

N-CHANNEL JFET

CAPACITOR MICROPHONE APPLICATIONS

■ FEATURES

- *Especially Suited for use in Audio, Telephone Capacitor Microphones
- *Excellent Voltage characteristic
- *Excellent Transient Characteristic



*Pb-free plating product number: K596L

■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
K596-x-T9S-K	K596L-x-T9S-K	TO-92SP	S	G	D	Bulk

<p>K596L-x-T9S-K</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Lead Plating</p>	<p>(1) K: Bulk (2) T9S: TO-92SP (3) x: refer to CLASSIFICATION OF I_{DSS} (4) L: Lead Free Plating, Blank: Pb/Sn</p>
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■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C ,unless otherwise specified)

PARAMETER	SYMBOL	RATING	UNIT
Gate Drain Voltage	V _{GDO}	-20	V
Gate Current	I _G	10	mA
Drain Current	I _D	1	mA
Power Dissipation	P _D	100	mW
Junction Temperature	T _J	+125	°C
Storage Temperature	T _{STG}	-55~+125	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

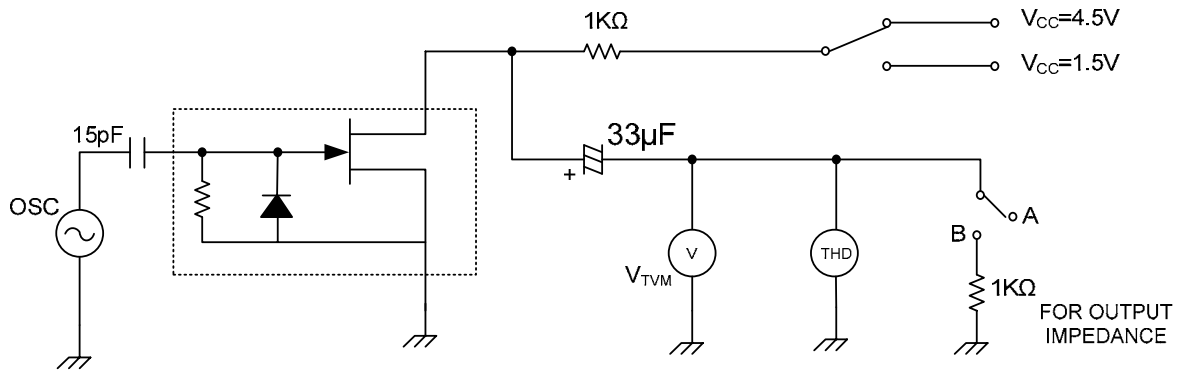
■ ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Gate Drain Breakdown Voltage	BV _{GDO}	I _G =-100μA	-20			V
Gate Source Cut off Voltage	V _{GS(OFF)}	V _{DS} =5V, I _D =1μA		-0.6	-1.5	V
Drain Current	I _{DSS}	V _{DS} =5V, V _{GS} =0	100		800	μA
Forward Transfer Admittance	I _{YFSI}	V _{DS} =5V, V _{GS} =0, f=1KHz	0.4	1.2		mS
Input Capacitance	C _{ISS}	V _{DS} =5V, V _{GS} =0, f=1MHz		3.5		pF
Output Capacitance	C _{RSS}	V _{DS} =5V, V _{GS} =0, f=1MHz		0.65		pF

■ CLASSIFICATION OF I_{DSS}

RANK	A	B	C	D	E
I _{DSS} (μA)	100-170	150-240	210-350	320-480	440-800

■ TEST CIRCUIT(Ta=25°C)



PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Voltage Gain	G _v	V _{IN} =10mV, f=1KHz		-3		dB
Reduced Voltage Characteristic	ΔG _v V	V _{IN} =10mV, f=1KHz, V _{CC} =4.5V→1.5V		-1.2	-3.5	dB
Frequency Characteristic	ΔG _v f	f=1KHz to 110Hz			-1	dB
Input Resistance	Z _{IN}	f=1KHz	25			MΩ
Output Resistance	Z _O	f=1KHz			700	Ω
Total Harmonic distortion	THD	V _{IN} =30mV, f=1KHz		1		%
Output Noise Voltage	V _{NO}	V _{IN} =0			-110	dB

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