

UTCK1109 JUNCTION FIELD EFFECT TRANSISTOR

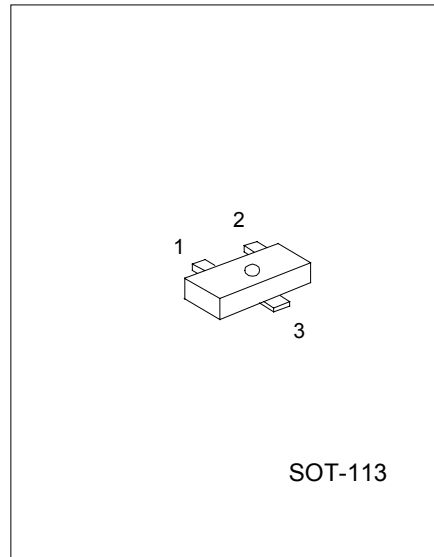
N-CHANNEL JFET FOR ELECTRET CONDENSER MICROPHONE

DESCRIPTION

The UTC K1109 is N-channel JFET for electret condenser microphone.

FEATURES

- *High gm implies low transfer loss
- *Built-in gate-source diode and resistor implies fast power on settling time



1: SOURCE 2: DRAIN 3: GATE

ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

PARAMETER	SYMBOL	VALUE	UNIT
Drain-Source Voltage	V _{DSX}	20	V
Gate-Drain Voltage	V _{GDO}	-20	V
Drain Current	I _D	10	mA
Gate Current	I _G	10	mA
Total Power Dissipation	P _T	80	mW
Junction Temperature	T _J	125	°C
Storage Temperature	T _{STG}	-55 ~ +125	°C

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

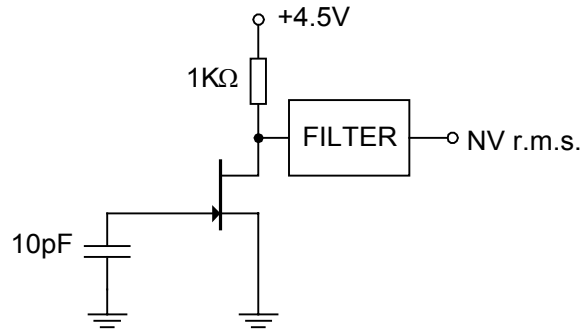
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Drain Current	I _{DSS}	V _{DS} =5.0V, V _{GS} =0	40		600	μA
Gate Off Voltage	V _{GS(OFF)}	V _{DS} =5.0V, I _D =1.0μA	-0.1		-1.0	V
Forward Transfer Admittance	Y _{Fs1l}	V _{DS} =5.0V, I _D =30μA, f=1kHz	350	480		μS
Forward Transfer Admittance	Y _{Fs2l}	V _{DS} =5.0V, V _{GS} =0, f=1kHz	350	1600		μS
Input Capacitance	C _{iss}	V _{DS} =5.0V, V _{GS} =0, f=1.0MHz		7.0	8.0	pF
Noise Voltage	NV			1.8	3.0	V

CLASSIFICATION OF I_{DSS}

RANK	J34	J35	J36
RANGE	90-180	150-300	200-450

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NOISE VOLTAGE TEST CIRCUIT



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