

UTCK1109 JUNCTION FIELD EFFECT TRANSISTOR

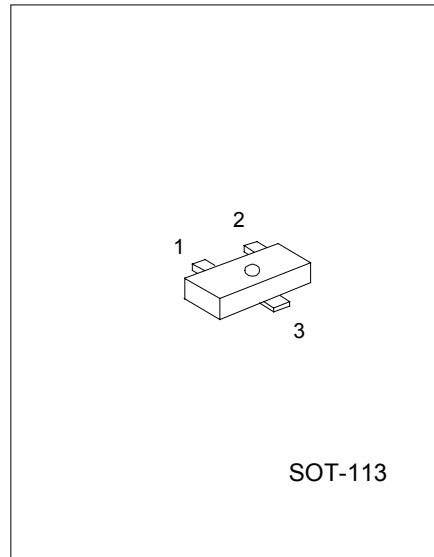
N-CHANNEL JFET FOR ELECTRET CONDENSER MICROPHONE

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 _{GD0}	-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)

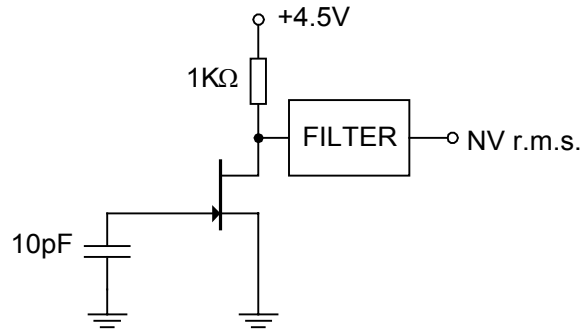
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Drain Current	I _{DSS}	V _{DS} =5.0V, V _{GS} =0	40		600	μA
Gate Off Voltage	V _{GS(OFF)}	V _{DS} =5.0V, I _D =1.0μA	-0.1		-1.0	V
Forward Transfer Admittance	Y _{Fs1}	V _{DS} =5.0V, I _D =30μA, f=1kHz	350	480		μS
Forward Transfer Admittance	Y _{Fs2}	V _{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

UTCK1109 JUNCTION FIELD EFFECT TRANSISTOR

NOISE VOLTAGE TEST CIRCUIT



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.