

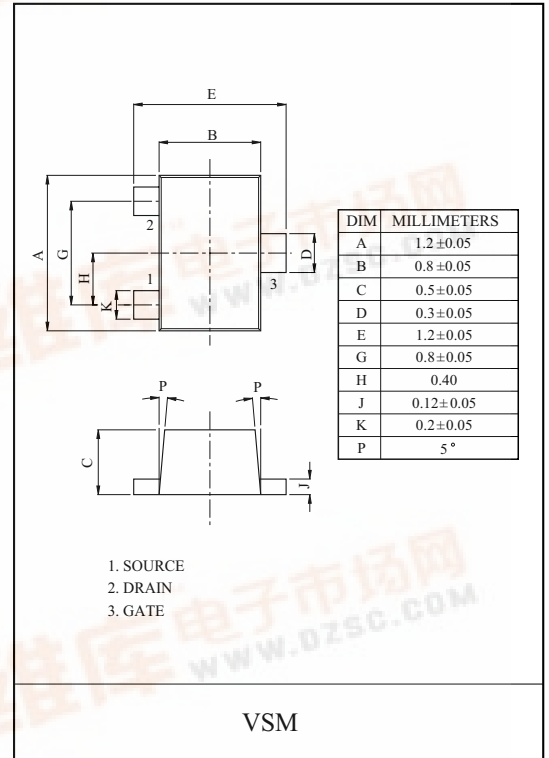
CONDENSER MICROPHONE APPLICATION.

#### FEATURES

- Especially Suited for Use in Audio, Telephone.
- Capacitor Microphones.
- Excellent Voltage Characteristics.
- Excellent Transient Characteristics.

#### MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Gate-Drain Voltage	V <sub>GDO</sub>	-20	V
Gate Current	I <sub>G</sub>	10	mA
Drain Current	I <sub>D</sub>	1	mA
Drain Power Dissipation	P <sub>D</sub>	100	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55 ~ 150	°C

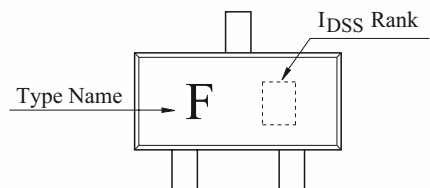


#### ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate-Drain Breakdown Voltage	V <sub>(BR)GDO</sub>	I <sub>G</sub> =-100 μA	-20	-	-	V
Gate-Source Cut-off Voltage	V <sub>GS(OFF)</sub>	V <sub>DS</sub> =5V, I <sub>D</sub> =1 μA	-	-0.6	-1.5	V
Drain Current	I <sub>DSS</sub> (Note)	V <sub>DS</sub> =5V, V <sub>GS</sub> =0	150	-	320	μA
Forward Transfer Admittance	y <sub>fs</sub>	V <sub>DS</sub> =5V, V <sub>GS</sub> =0, f=1kHz	0.4	1.2	-	mS
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> =5V, V <sub>GS</sub> =0, f=1MHz	-	3.5	-	pF
Reverse Transfer Capacitance	C <sub>rss</sub>	V <sub>DS</sub> =5V, V <sub>GS</sub> =0, f=1MHz	-	0.65	-	pF

Note : I<sub>DSS</sub> Classification Y(1):150~240, GR(2):210~320

#### Marking



# KTK597V

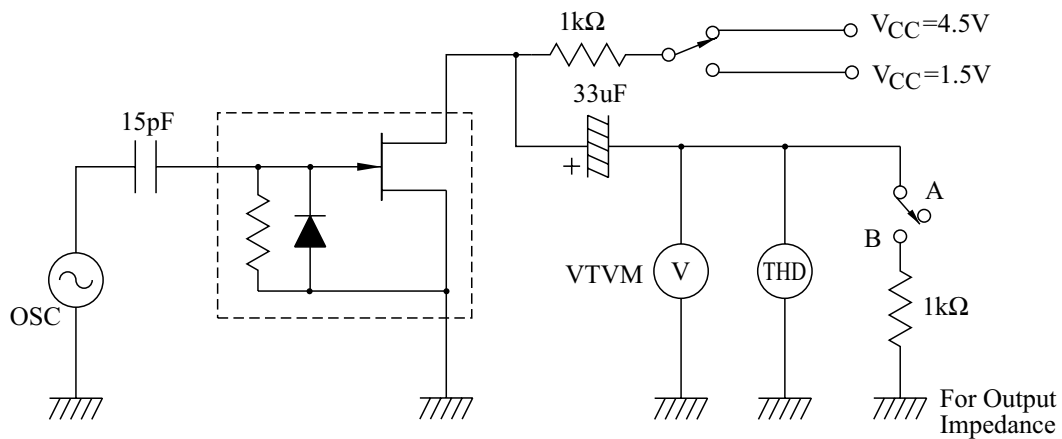
## ELECTRICAL CHARACTERISTICS

( $T_a=25^\circ\text{C}$ ,  $V_{CC}=4.5\text{V}$ ,  $R_L=1\text{k}\Omega$ ,  $C_{in}=15\text{pF}$ , See Specified Test Circuit.)

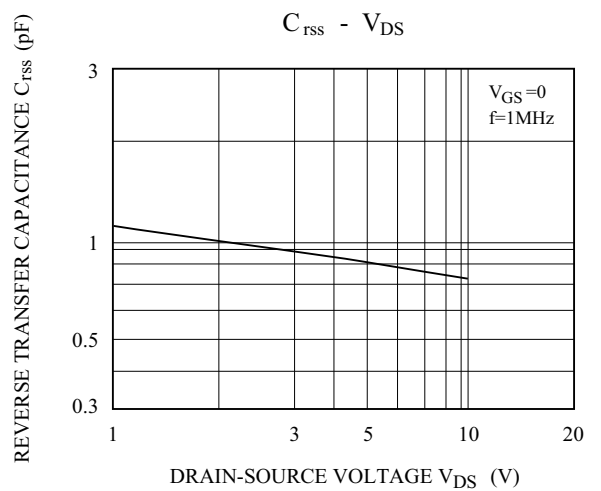
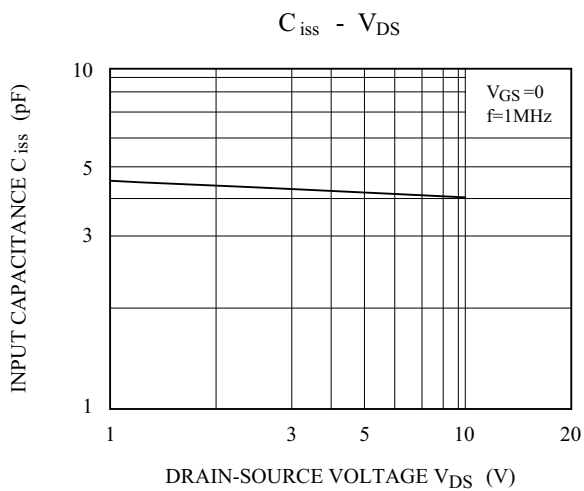
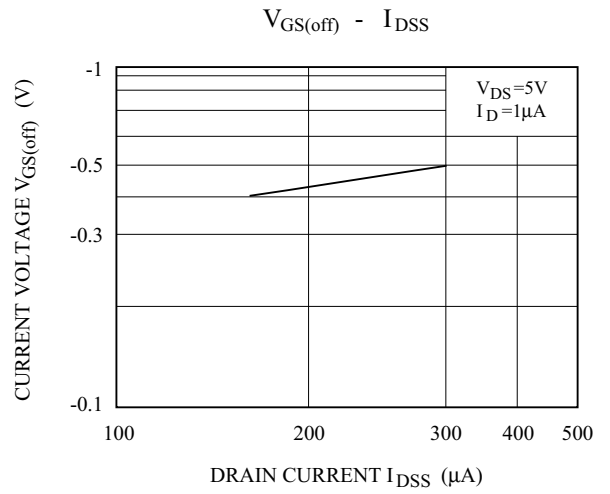
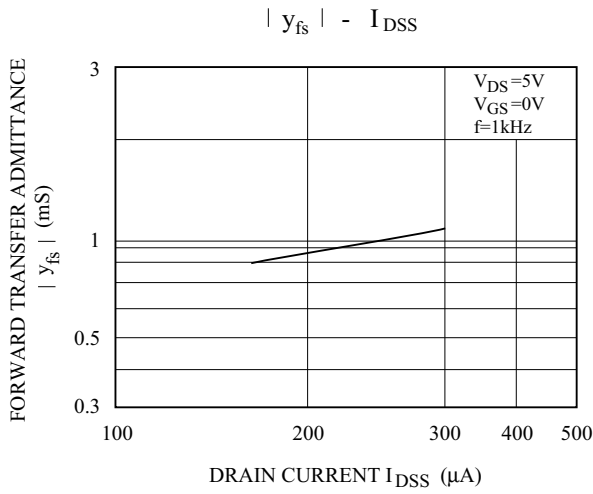
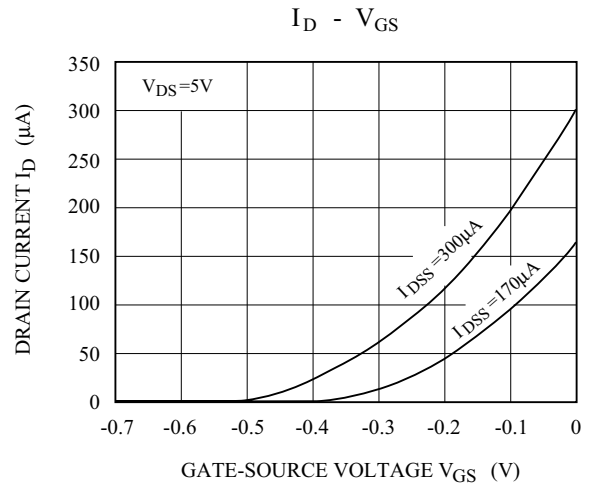
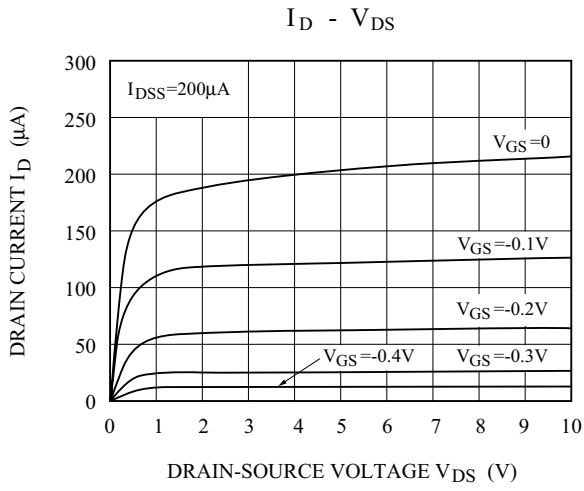
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Voltage Gain	$G_V$	$V_{in}=10\text{mV}$ , $f=1\text{kHz}$	-	-3.0	-	dB
Reduced Voltage Characteristic	$\angle G_{VV}$	$V_{in}=10\text{mV}$ , $f=1\text{kHz}$ $V_{CC}=4.5\text{V} \rightarrow 1.5\text{V}$	-	-1.2	-4.0	dB
Frequency Characteristic	$\angle G_{VF}$	$f=1\text{kHz} \sim 110\text{Hz}$	-	-	-1.0	dB
Input Resistance	$Z_{in}$	$f=1\text{kHz}$	25	-	-	$\text{M}\Omega$
Output Resistance	$Z_O$	$f=1\text{kHz}$	-	-	700	$\Omega$
Total Harmonic Distortion	THD	$V_{in}=30\text{mV}$ , $f=1\text{kHz}$	-	1.0	-	%
Output Noise Voltage	$V_{NO}$	$V_{in}=0$ , A curve	-	-	-110	dB

## SPECIFIED TEST CIRCUIT

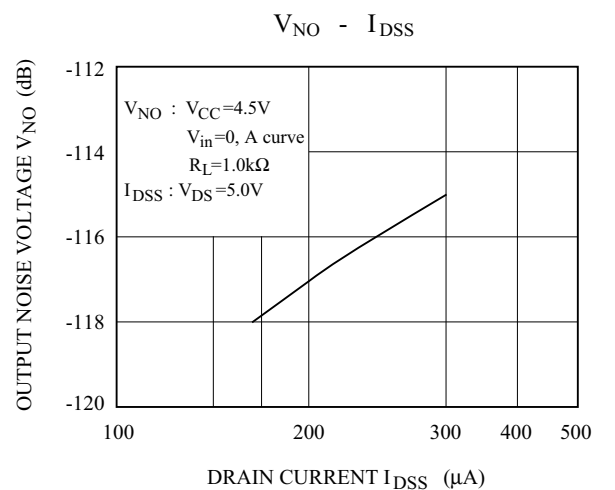
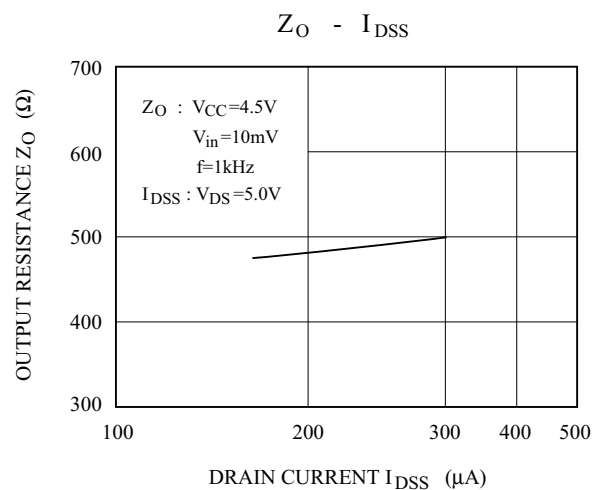
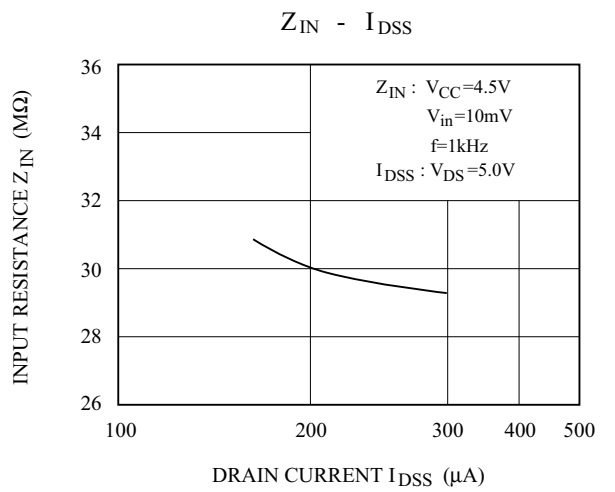
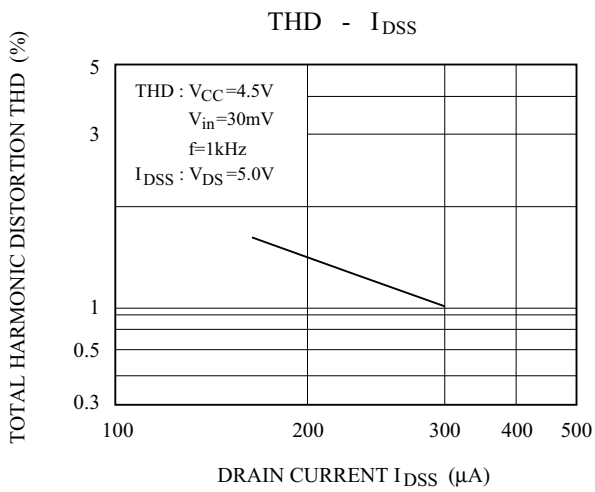
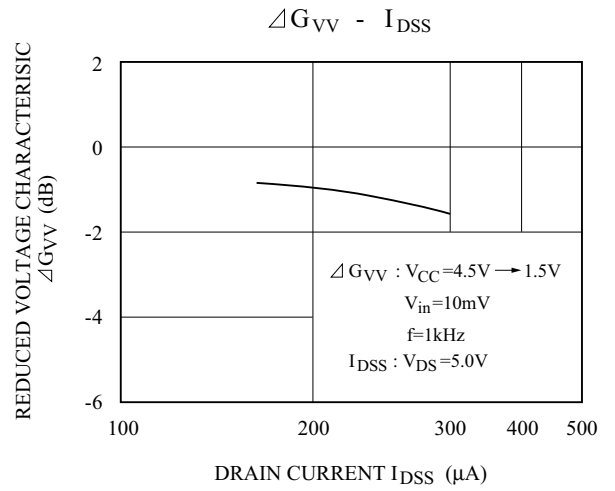
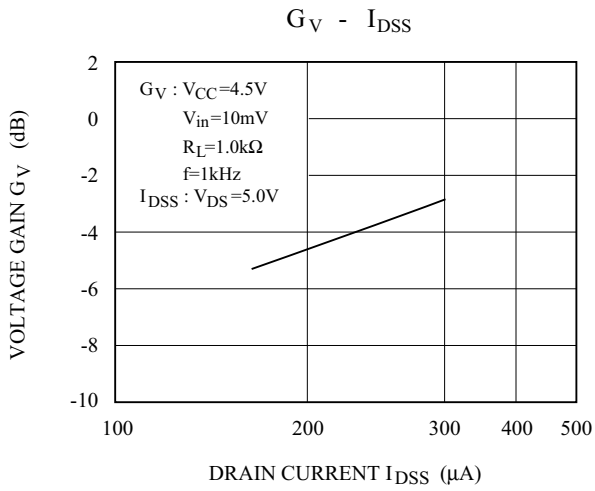
- Voltage gain.
- Frequency Characteristic.
- Distortion.
- Reduced Voltage Characteristic.



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