

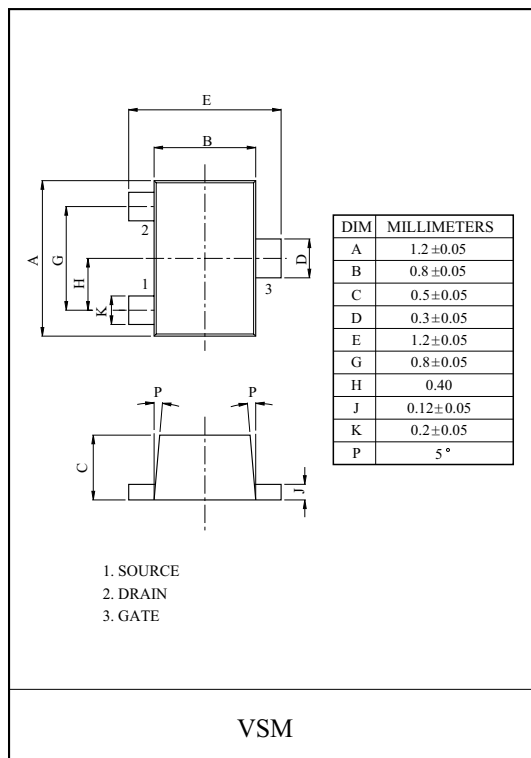
CONDENSER MICROPHONE APPLICATION.

#### 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	$V_{GDO}$	-20	V
Gate Current	$I_G$	10	mA
Drain Current	$I_D$	1	mA
Drain Power Dissipation	$P_D$	100	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55 ~ 150	°C

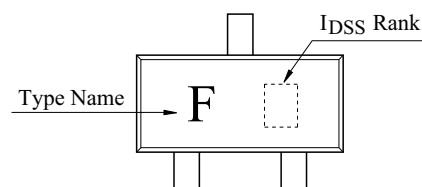


#### ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate-Drain Breakdown Voltage	$V_{(BR)GDO}$	$I_G = -100 \mu A$	-20	-	-	V
Gate-Source Cut-off Voltage	$V_{GS(OFF)}$	$V_{DS} = 5V, I_D = 1 \mu A$	-	-0.6	-1.5	V
Drain Current	$I_{DSS}$ (Note)	$V_{DS} = 5V, V_{GS} = 0$	150	-	320	$\mu A$
Foward Transfer Admittance	$ y_{fs} $	$V_{DS} = 5V, V_{GS} = 0, f = 1kHz$	0.4	1.2	-	mS
Input Capacitance	$C_{iss}$	$V_{DS} = 5V, V_{GS} = 0, f = 1MHz$	-	3.5	-	pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS} = 5V, V_{GS} = 0, f = 1MHz$	-	0.65	-	pF

Note :  $I_{DSS}$  Classification Y(1):150~240, GR(2):210~320

#### Marking



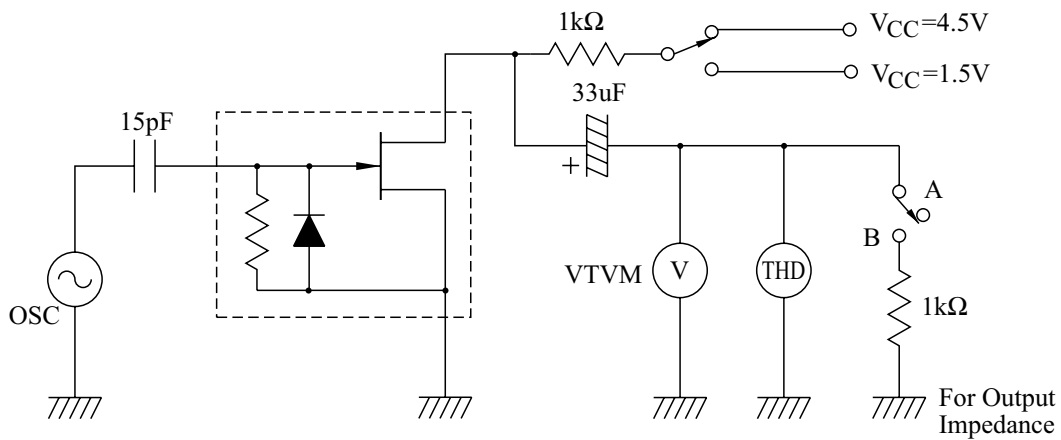
## ELECTRICAL CHARACTERISTICS

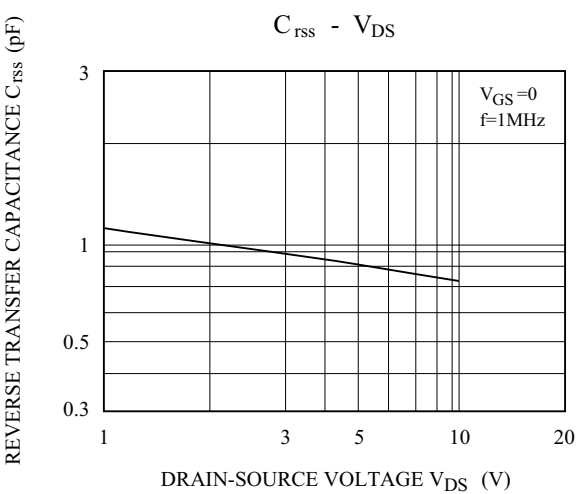
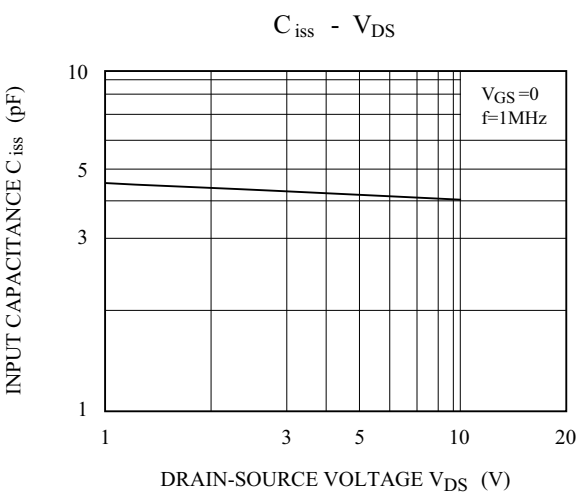
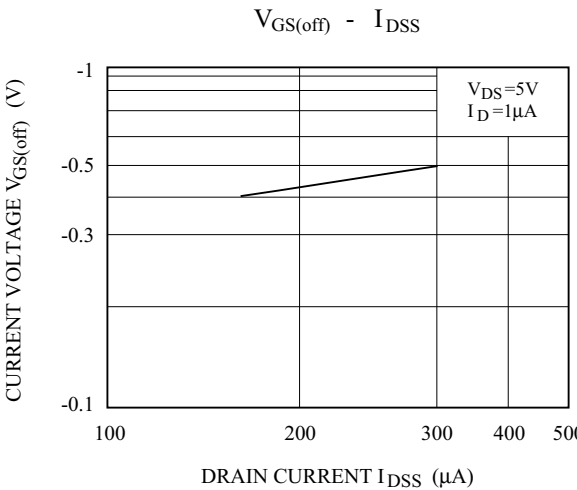
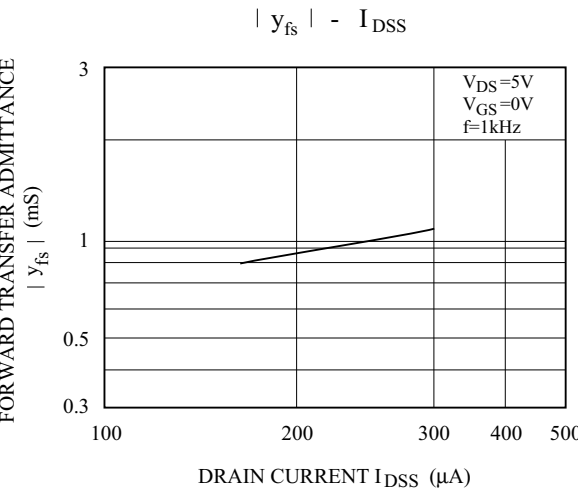
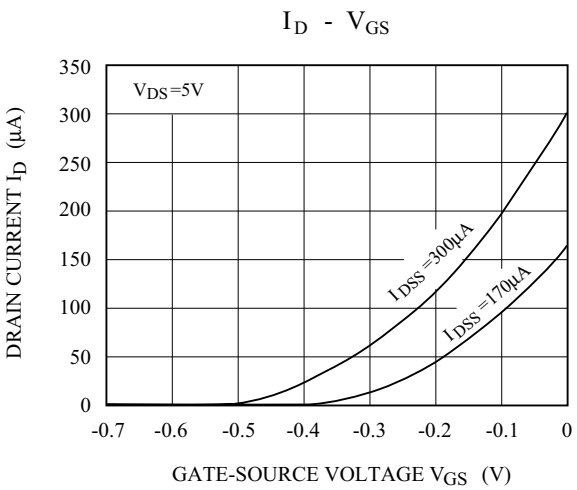
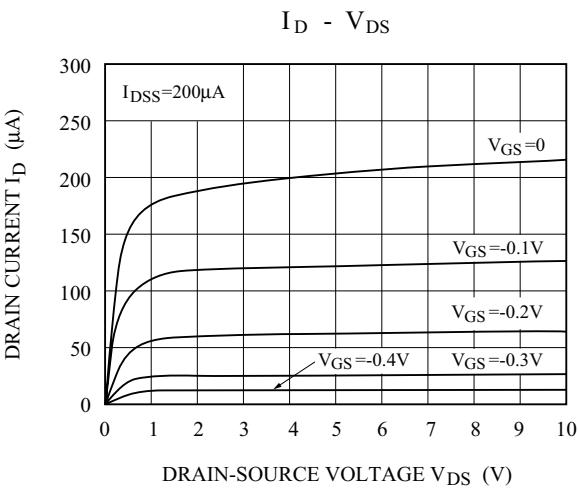
(Ta=25℃, V<sub>CC</sub>=4.5V, R<sub>L</sub>=1kΩ, C<sub>in</sub>=15pF, See Specified Test Circuit.)

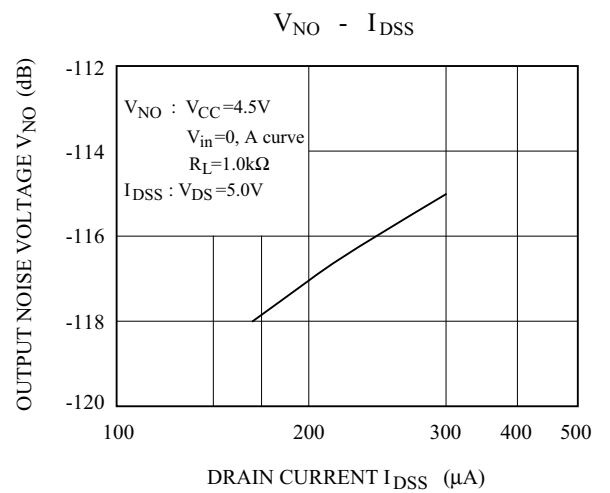
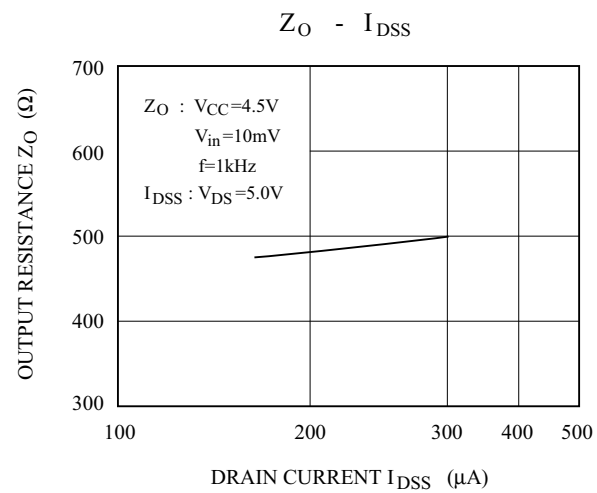
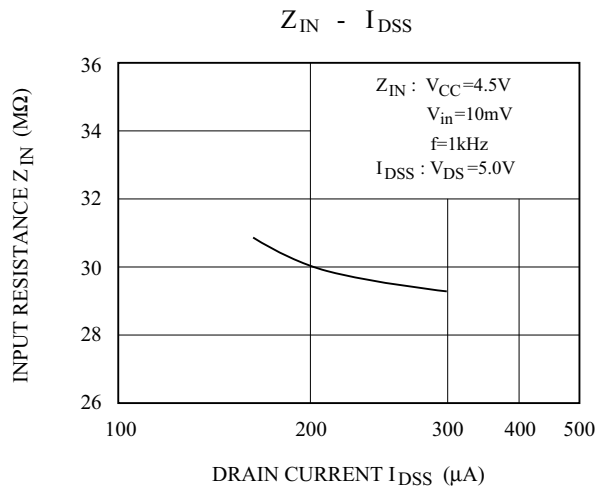
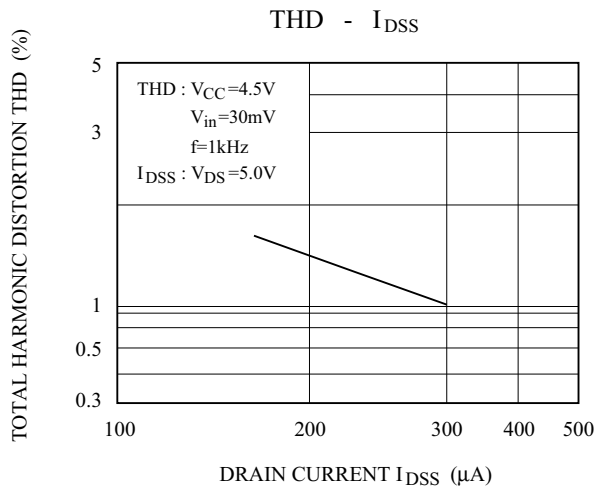
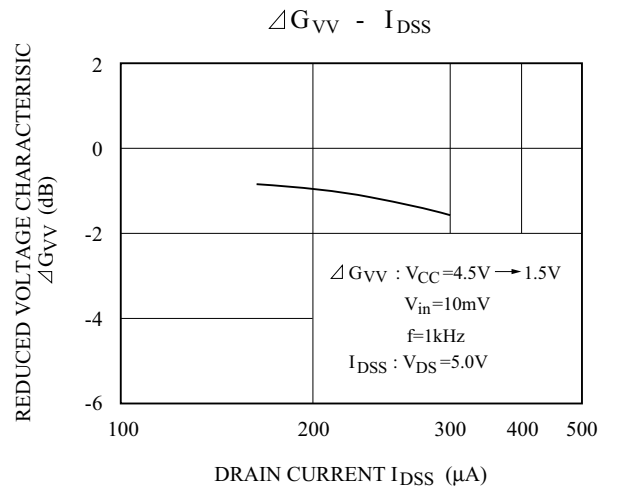
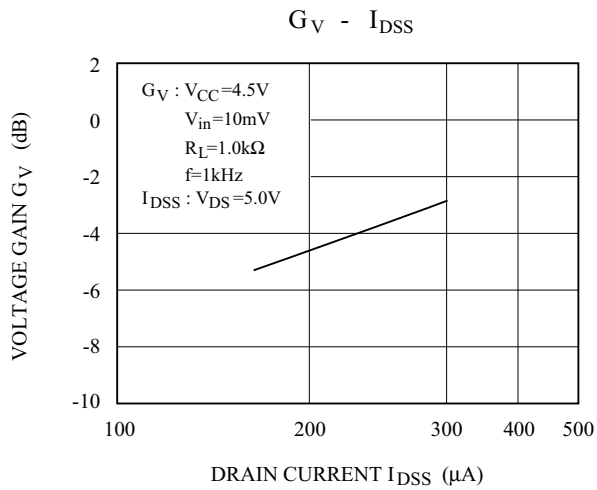
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Voltage Gain	G <sub>V</sub>	V <sub>in</sub> =10mV, f=1kHz	-	-3.0	-	dB
Reduced Voltage Characteristic	ΔG <sub>VV</sub>	V <sub>in</sub> =10mV, f=1kHz V <sub>CC</sub> =4.5V→1.5V	-	-1.2	-4.0	dB
Frequency Characteristic	ΔG <sub>VF</sub>	f=1kHz ~110Hz	-	-	-1.0	dB
Input Resistance	Z <sub>in</sub>	f=1kHz	25	-	-	MΩ
Output Resistance	Z <sub>O</sub>	f=1kHz	-	-	700	Ω
Total Harmonic Distortion	THD	V <sub>in</sub> =30mV, f=1kHz	-	1.0	-	%
Output Noise Voltage	V <sub>NO</sub>	V <sub>in</sub> =0, A curve	-	-	-110	dB

## SPECIFIED TEST CIRCUIT

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







**KTK597V**