

<b>SANYO</b>	No.4755	2SK2219
		N-Channel Junction Silicon FET
<b>Capacitor Microphone Applications</b>		

**Features**

- Very small-sized package permitting 2SK2219-applied sets to be made small and slim.
- Especially suited for use in audio, telephone capacitor microphones.
- Excellent voltage characteristic.
- Excellent transient characteristic.
- Adoption of FBET process.

**Absolute Maximum Ratings at Ta = 25°C**

			unit
Gate-to-Drain Voltage	$V_{GDO}$	-20	V
Gate Current	$I_G$	10	mA
Drain Current	$I_D$	1	mA
Allowable Power Dissipation	$P_D$	100	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55 to +150	°C

**Electrical Characteristics at Ta = 25°C**

			min	typ	max	unit
G-D Breakdown Voltage	$V_{(BR)GDO}$	$I_G = -100 \mu A$	-20			V
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 5V, I_D = 1 \mu A$	-0.2	-0.6	-1.2	V
Drain Current	$I_{DSS}$	$V_{DS} = 5V, V_{GS} = 0$	140*		500*	$\mu A$
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 5V, V_{GS} = 0, f = 1kHz$	0.5	1.2		mS
Input Capacitance	$C_{iss}$	$V_{DS} = 5V, V_{GS} = 0, f = 1MHz$		4.1		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS} = 5V, V_{GS} = 0, f = 1MHz$		0.88		pF

\* : The 2SK2219 is classified by  $I_{DSS}$  as follows : (unit :  $\mu A$ )

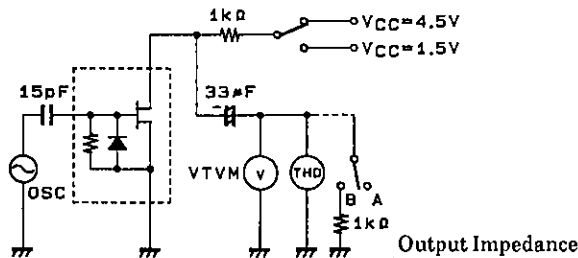
140	21	240	210	22	350	320	23	500
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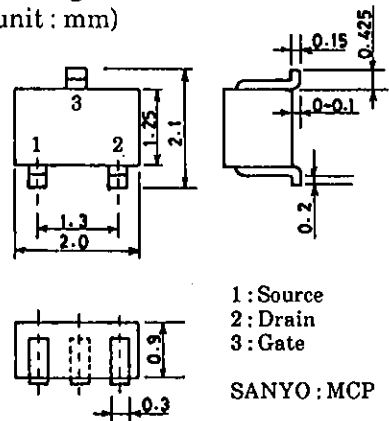
$I_{DSS}$  rank : 21, 22, 23

**Test Circuit**

- Voltage Gain
- Frequency Characteristic
- Distortion
- Reduced Voltage Characteristic



**Package Dimensions 2058A**  
(unit : mm)

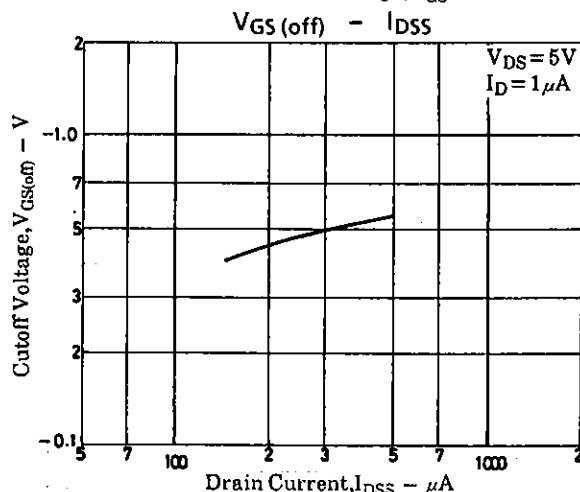
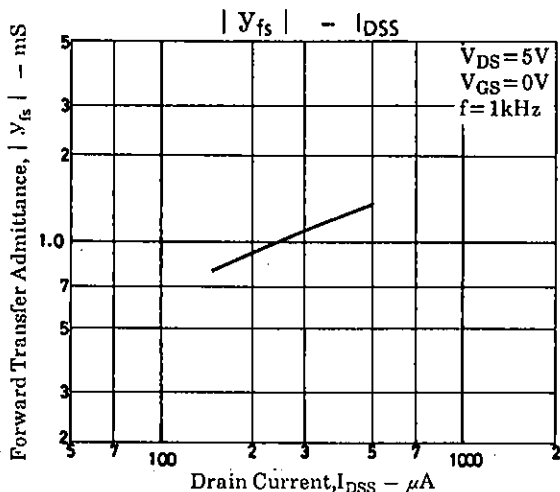
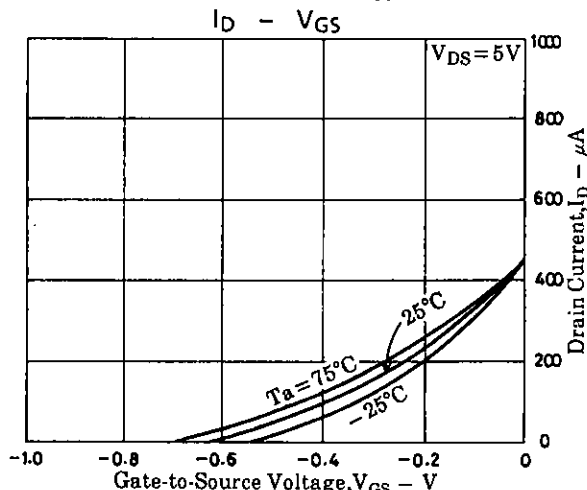
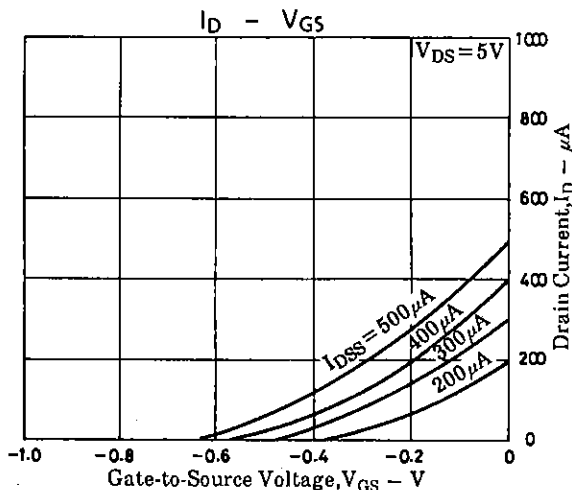
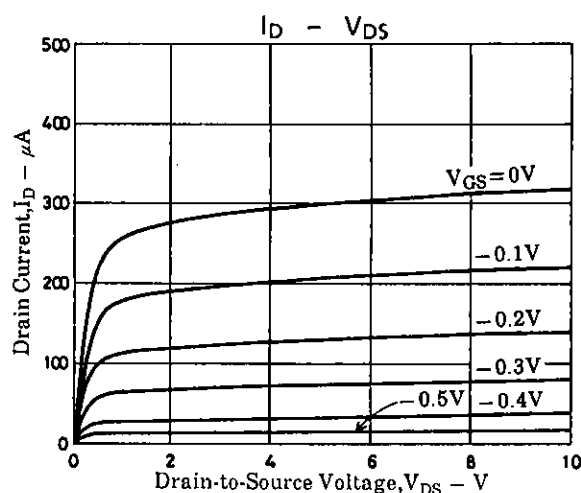
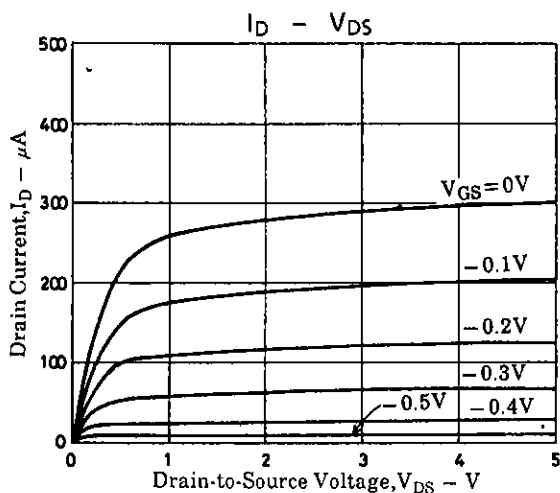


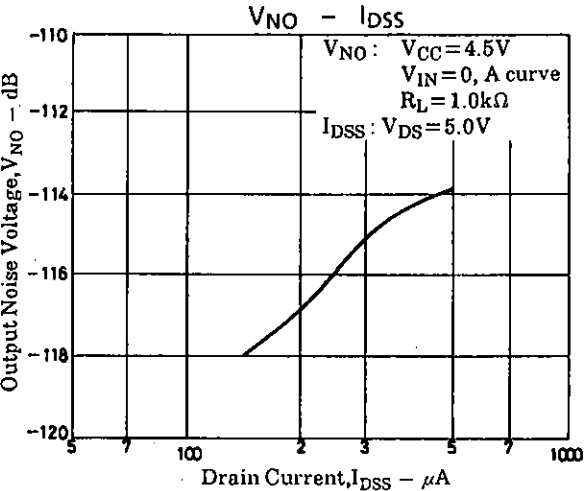
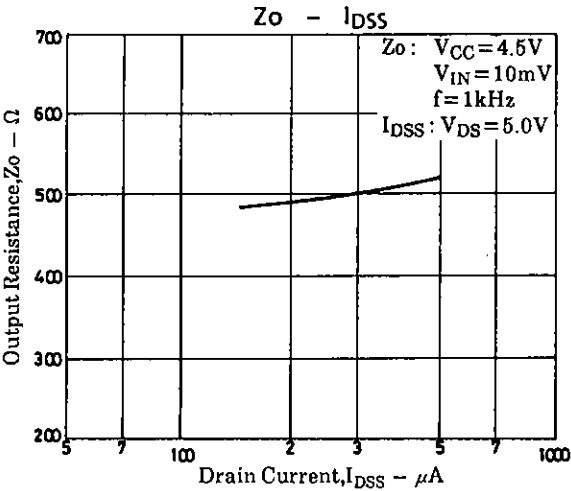
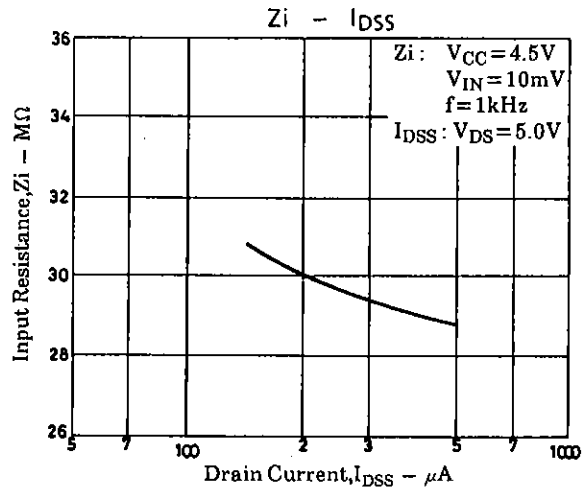
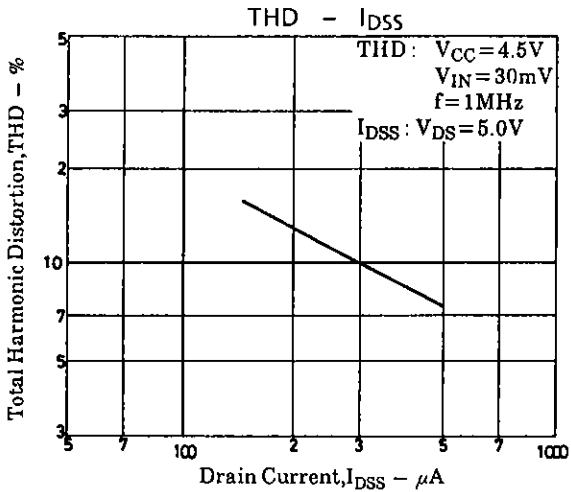
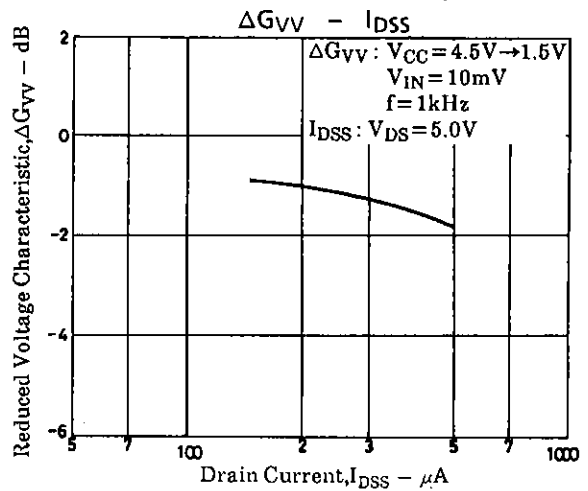
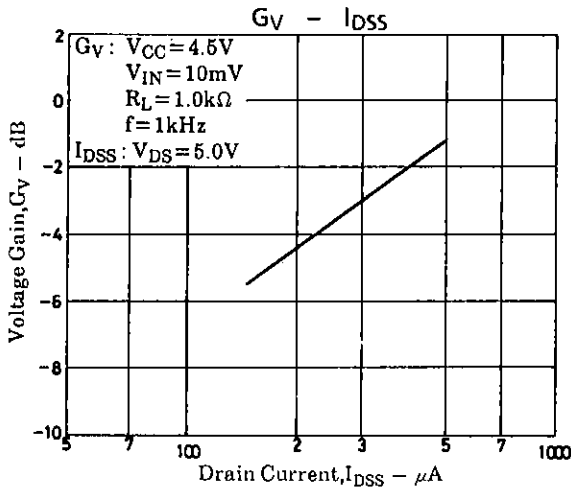
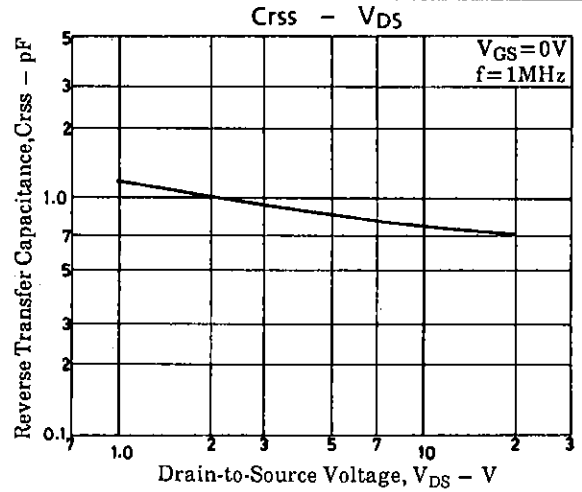
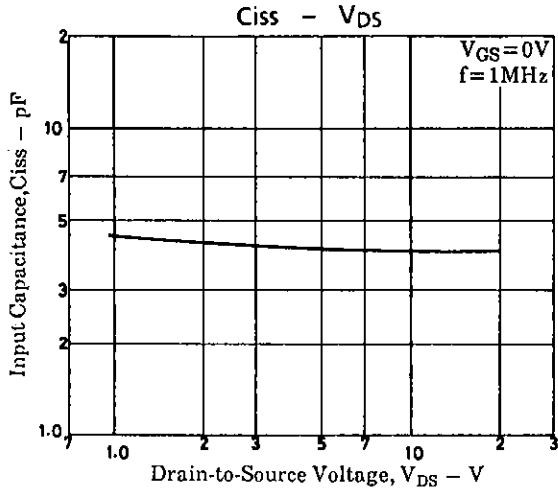
- 1 : Source
- 2 : Drain
- 3 : Gate

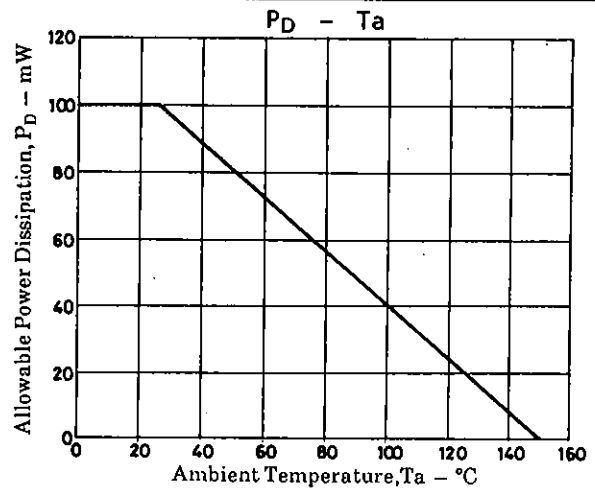
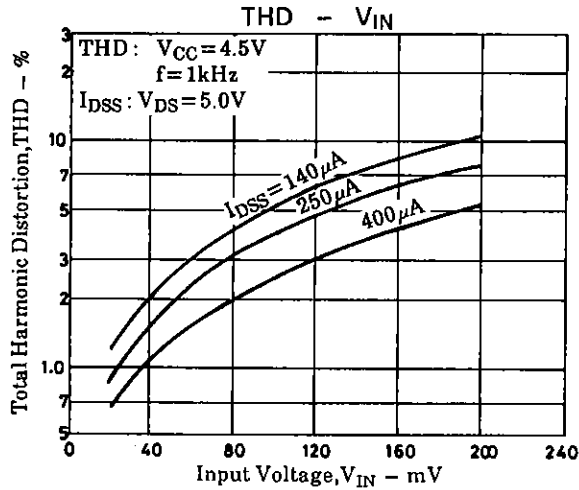
SANYO : MCP

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

			min	typ	max	unit
Voltage Gain	$G_V$	$V_{IN} = 10\text{mV}$ , $f = 1\text{kHz}$		-3.0		dB
Reduced Voltage Characteristic	$\Delta G_{VV}$	$V_{IN} = 10\text{mV}$ , $f = 1\text{kHz}$ $V_{CC} = 4.5 \rightarrow 1.5\text{V}$		-1.2	-3.5	dB
Frequency Characteristic	$\Delta G_{Vf}$	$f = 1\text{kHz to } 110\text{Hz}$			-1.0	dB
Input Impedance	$Z_{in}$	$f = 1\text{kHz}$	25			$\text{M}\Omega$
Output Impedance	$Z_o$	$f = 1\text{kHz}$			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







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