

SANYO	No.4755	2SK2219
		N-Channel Junction Silicon FET
Capacitor Microphone Applications		

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*	μA
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 : μA)

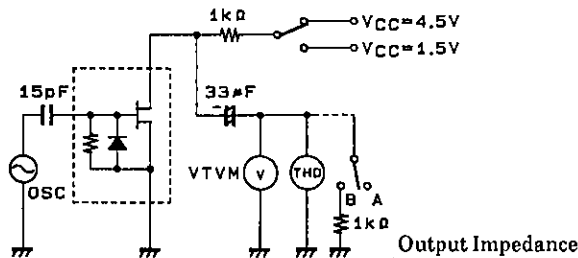
140	21	240	210	22	350	320	23	500
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Marking : D

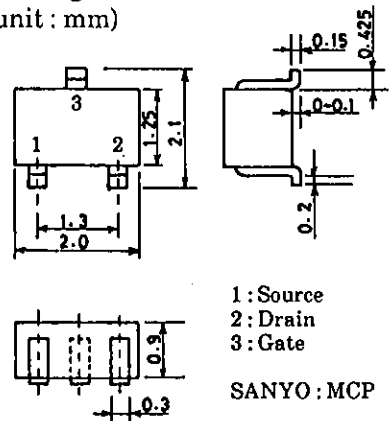
I_{DSS} rank : 21, 22, 23

Test Circuit

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

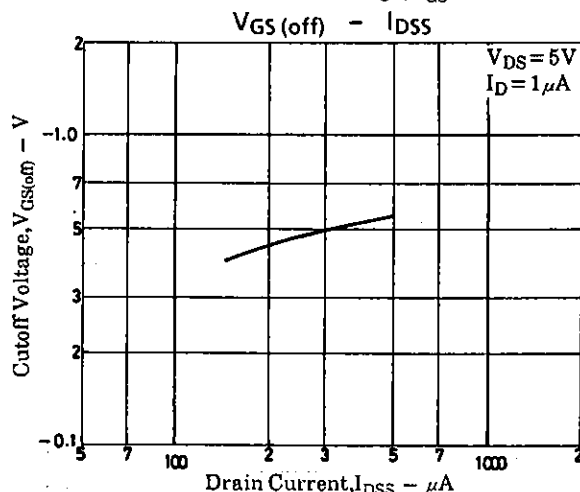
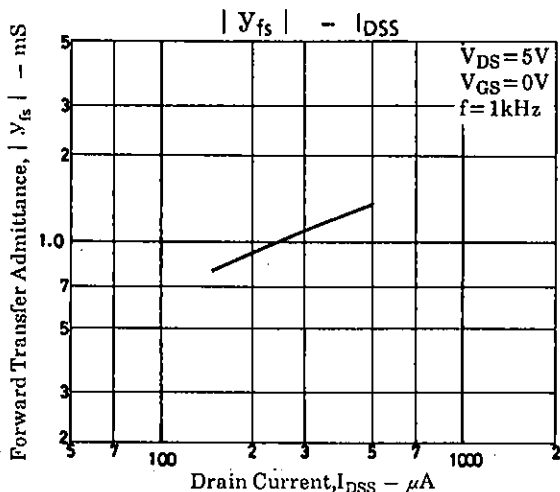
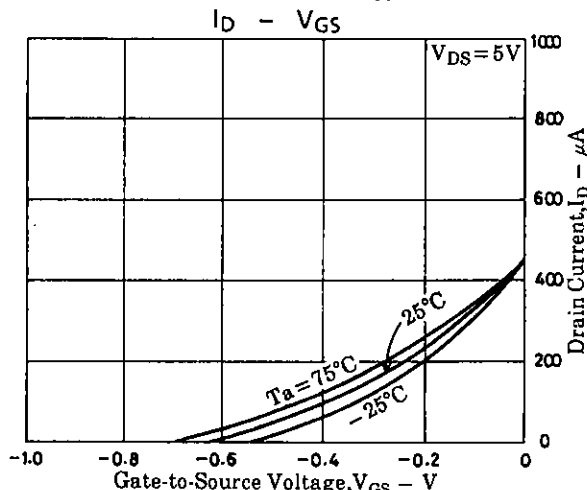
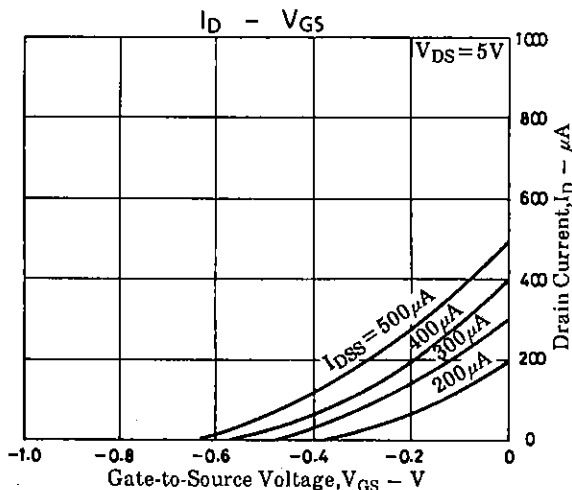
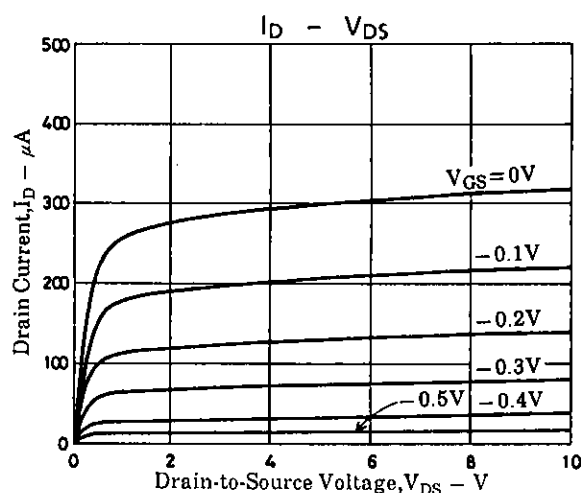
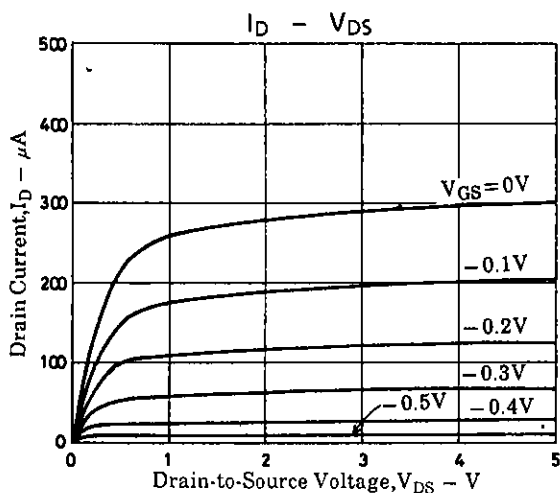


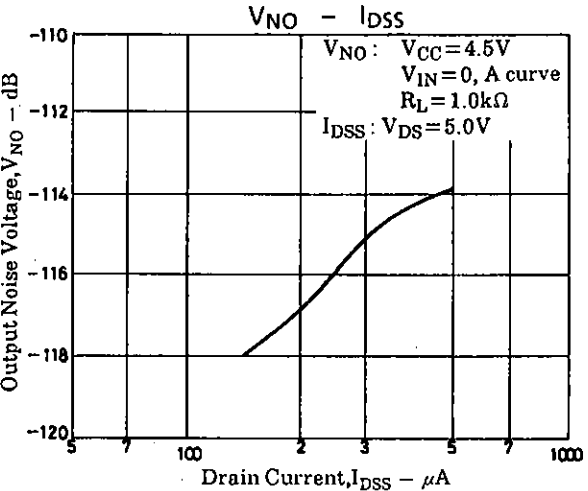
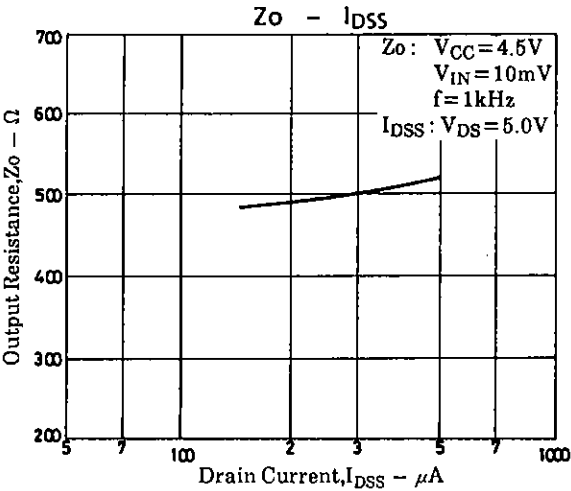
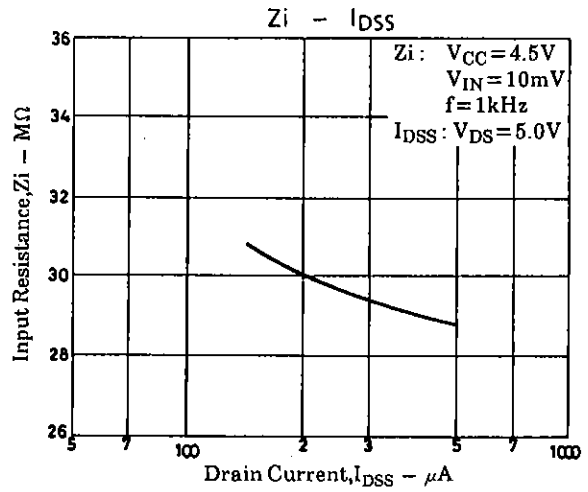
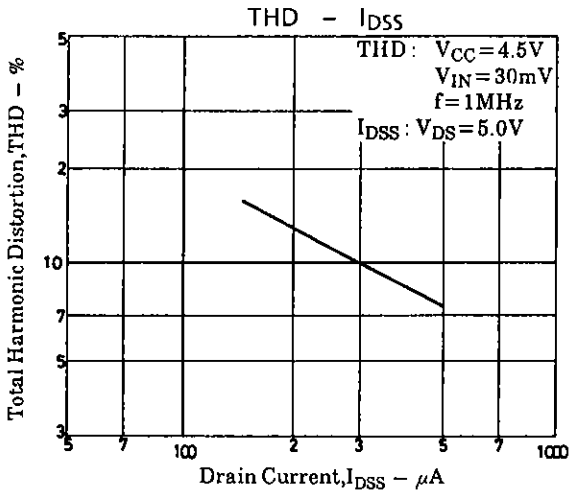
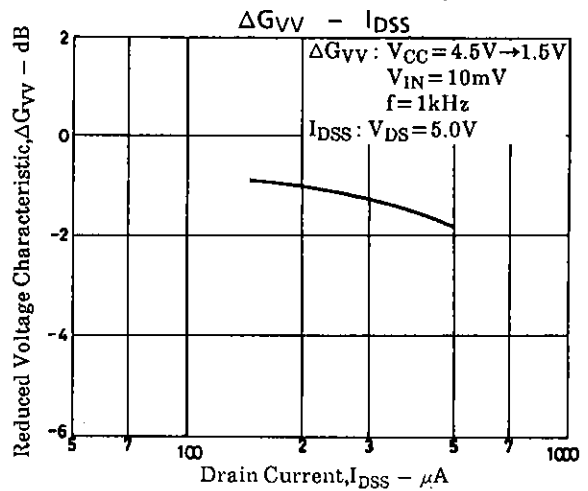
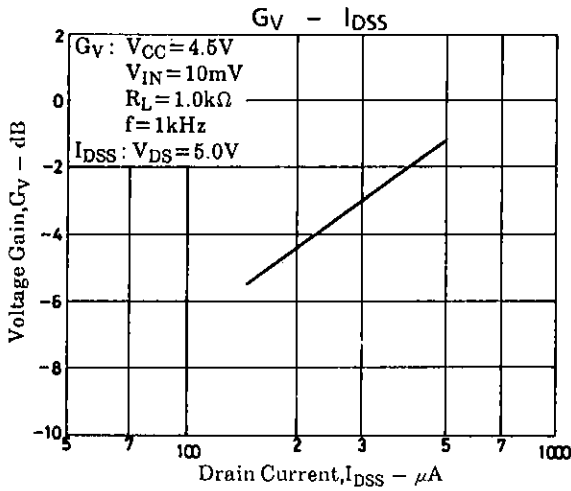
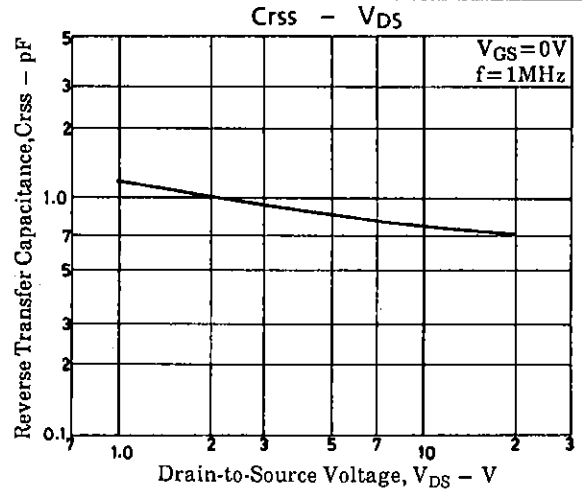
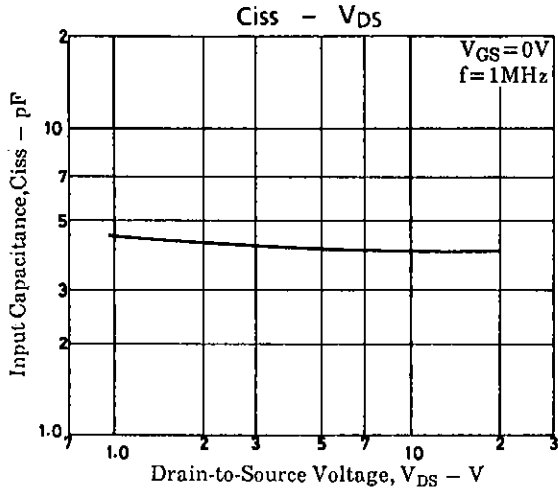
Package Dimensions 2058A
(unit : mm)

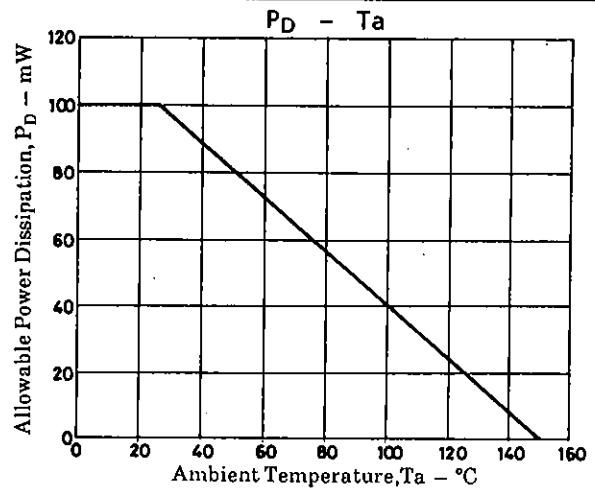
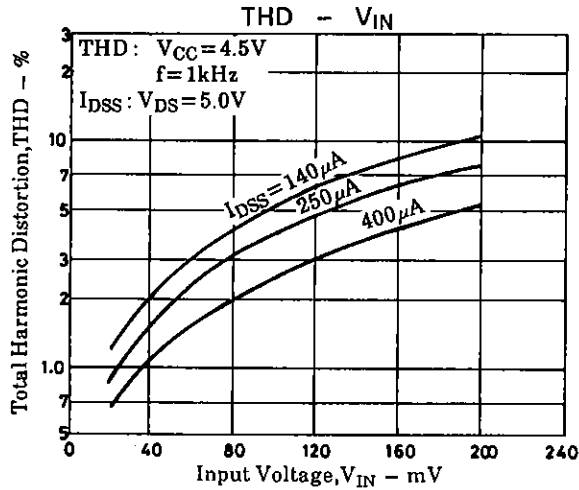


[$T_a = 25^\circ\text{C}$, $V_{CC} = 4.5\text{V}$, $R_L = 1\text{k}\Omega$, $C_{in} = 15\text{pF}$, See specified Test Circuit.]

			min	typ	max	unit
Voltage Gain	G_V	$V_{IN} = 10\text{mV}$, $f = 1\text{kHz}$		-3.0		dB
Reduced Voltage Characteristic	ΔG_{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	ΔG_{Vf}	$f = 1\text{kHz}$ to 110Hz			-1.0	dB
Input Impedance	Z_{in}	$f = 1\text{kHz}$	25			$\text{M}\Omega$
Output Impedance	Z_o	$f = 1\text{kHz}$			700	Ω
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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