

2SK595

2025

T-29-25

N-Channel Junction Silicon FET

Capacitor Microphone Applications

©2206

Features

- 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	125	°C
Storage Temperature	T_{stg}	-55 to +125	°C

Electrical Characteristics at Ta=25°C

		min	typ	max	unit
Gate to Drain Breakdown Voltage	$V_{(BR)GDO}$ $I_G=-100\mu A$	-20			V
Cutoff Voltage	$V_{GS(off)}$ $V_{DS}=5V, I_D=1\mu A$	-0.6	-1.5		V
Drain Current	I_{DSS} $V_{DS}=5V, V_{GS}=0$	100*		800*	μA
Forward 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

*: The 2SK595 is classified by I_{DSS} as follows (unit: μA):

100	20	170	150	21	240	210	22	350	320	23	480	440	24	800
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[Ta=25°C, $V_{CC}=4.5V$, $R_L=1k\Omega$, $C_{in}=15pF$, See specified Test Circuit.]

			min	typ	max	unit
Voltage Gain	G_V $V_{in}=10mV, f=1kHz$		-3.0			dB
Reduced Voltage Characteristic	ΔG_V $V_{in}=10mV, f=1kHz, V_{CC}=4.5 \rightarrow 1.5V$		-1.2	-3.5		dB
Frequency Characteristic	ΔG_{VF} $f=1kHz$ to 110Hz			-1.0		dB

Marking on device: C

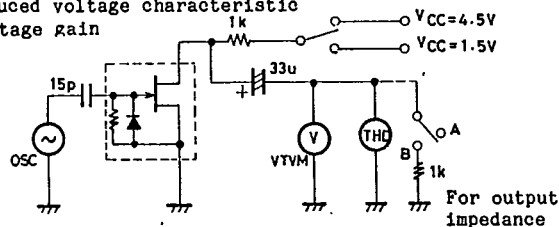
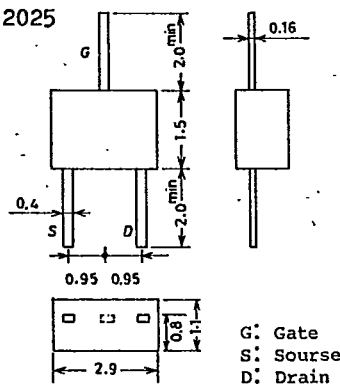
 I_{DSS} rank: 20, 21, 22, 23, 24

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Specified Test CircuitFrequency characteristic
Distortion

Reduced voltage characteristic

Voltage gain

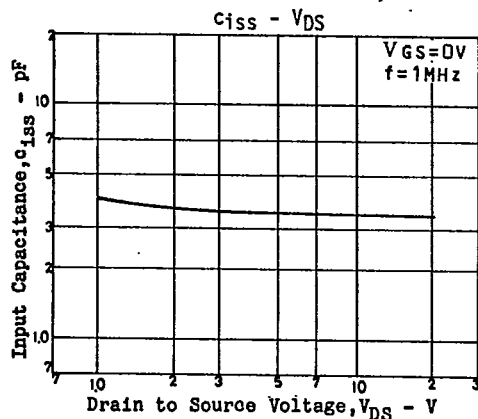
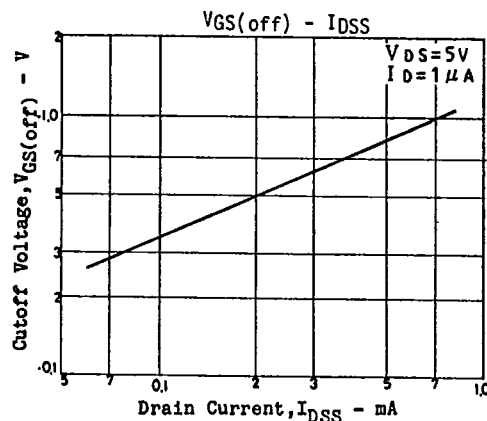
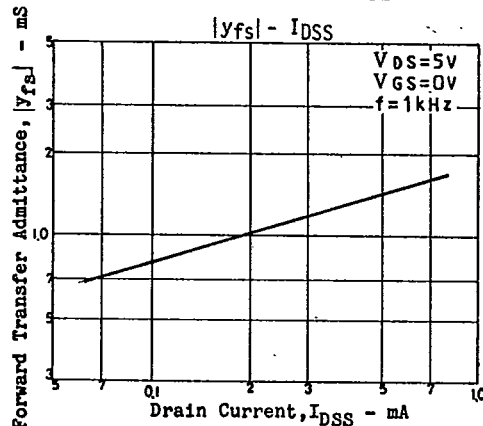
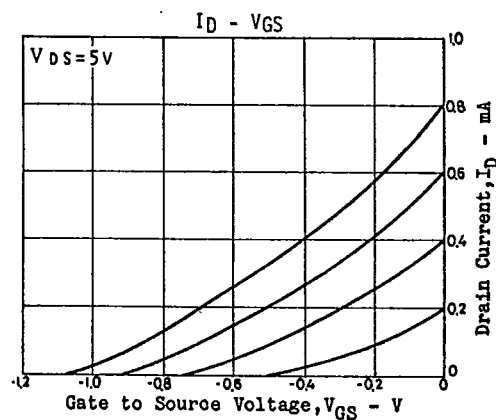
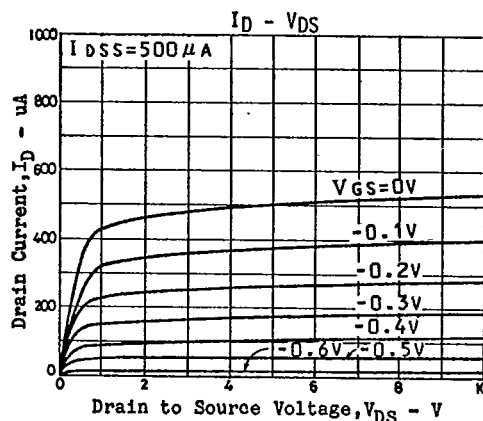
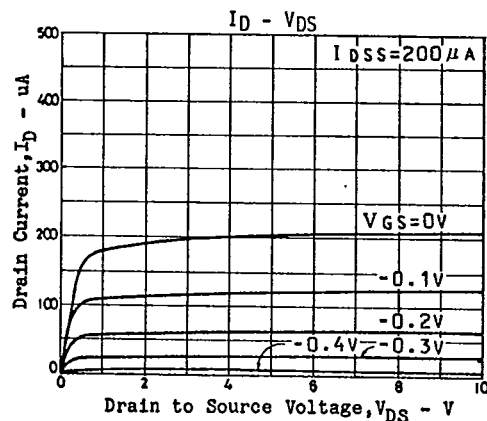
**Case Outline 2025**
(unit:mm)G: Gate
S: Source
D: Drain

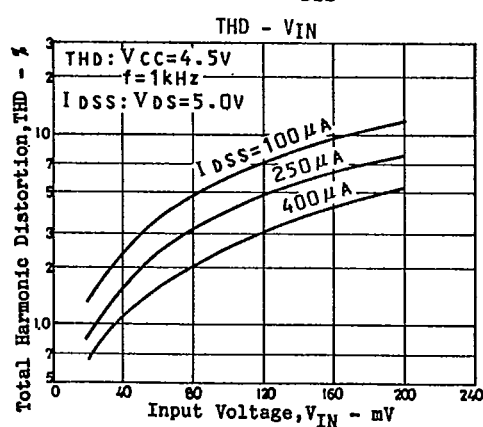
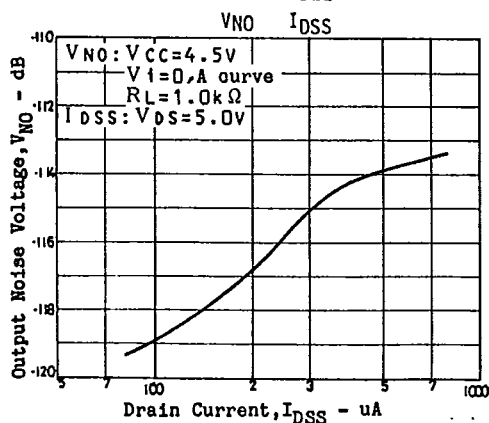
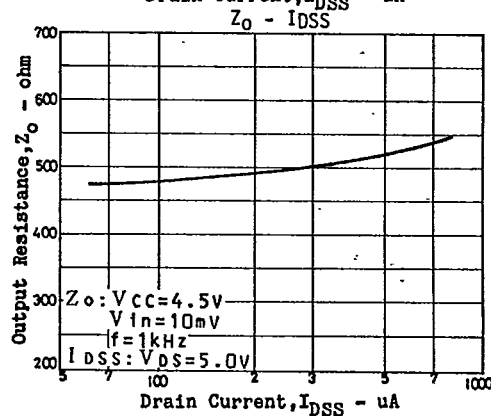
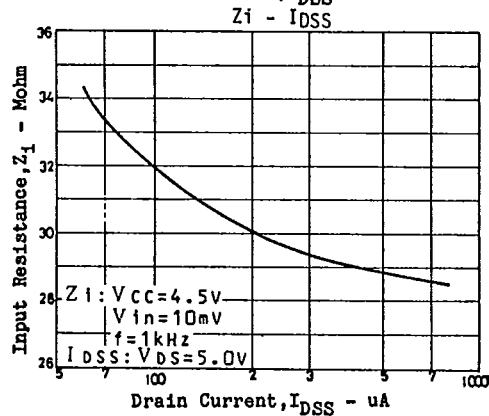
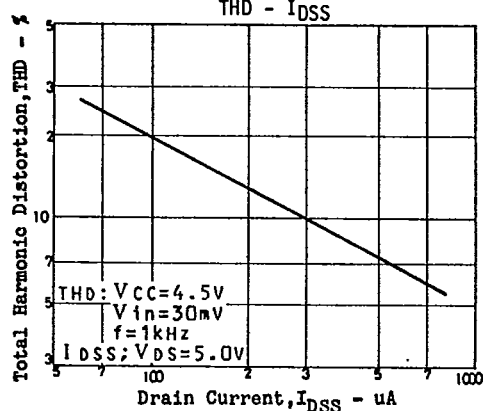
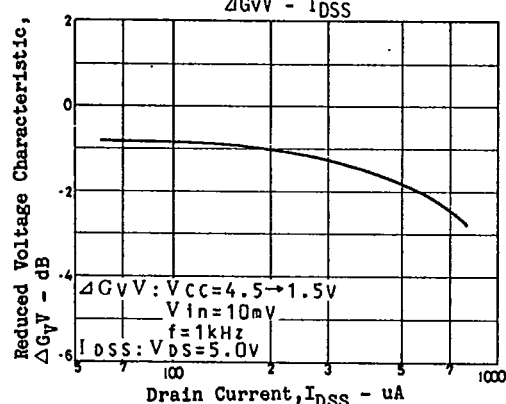
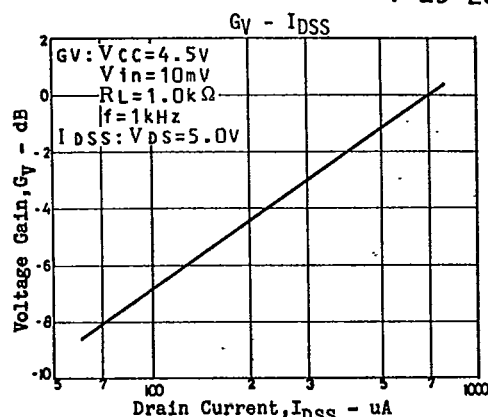
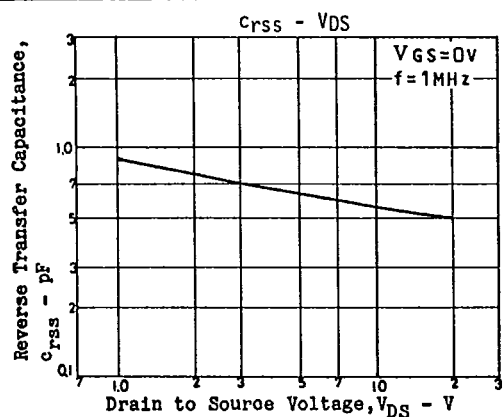
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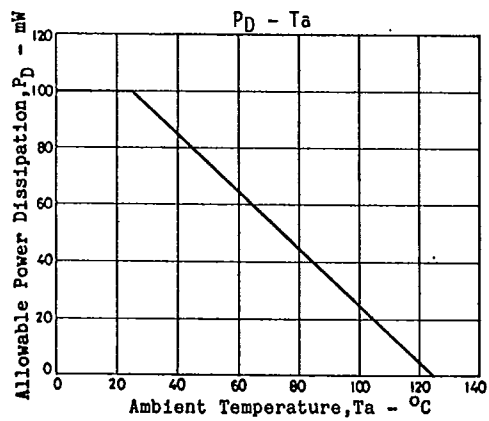
Input Resistance	Z_{in}	$f=1\text{kHz}$	min	typ	max	unit
Output Resistance	Z_o	$f=1\text{kHz}$	25			Mohm
Total Harmonic Distortion	THD	$V_{in}=30\text{mV}, f=1\text{kHz}$		1.0	700	ohm
Output Noise Voltage	V_{NO}	$V_{in}=0, A \text{ curve}$			-110	dB





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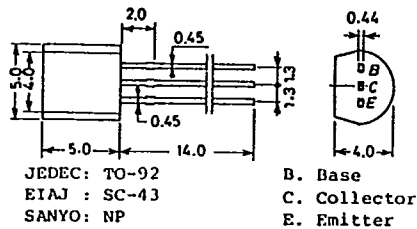


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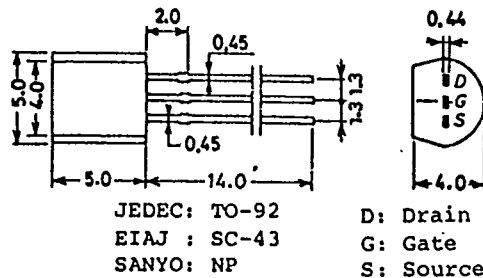
CASE OUTLINES OF LEAD FORMED SMALL SIGNAL TRANSISTORS

- All of Sanyo lead formed small signal transistor case outlines are illustrated below.
- All dimensions are in mm, and dimensions which are not followed by min. or max. are represented by typical values.
- No marking is indicated.

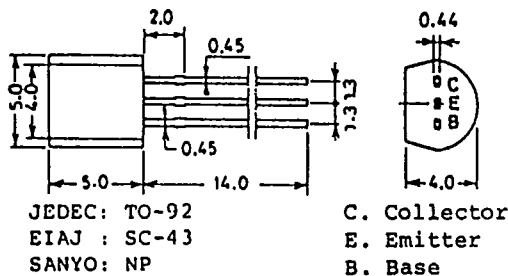
Case Outline—[2003A] unit: mm



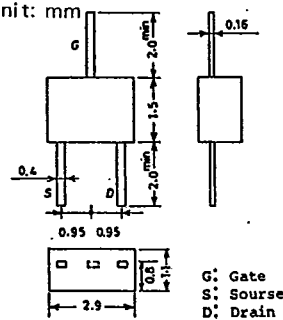
Case Outline—[2019A] unit: mm



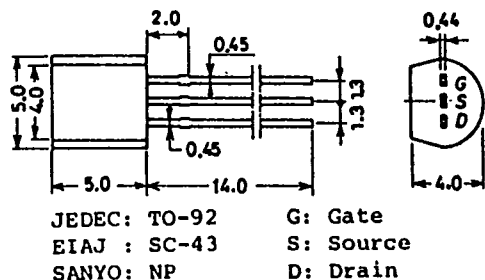
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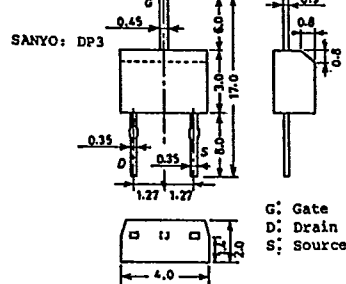
Case Outline—[2025] unit: mm



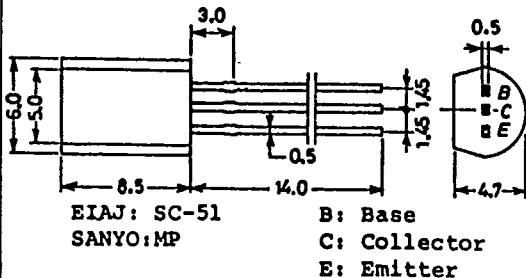
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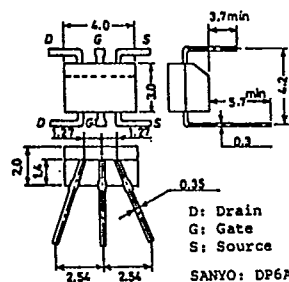
Case Outline—[2026] unit: mm



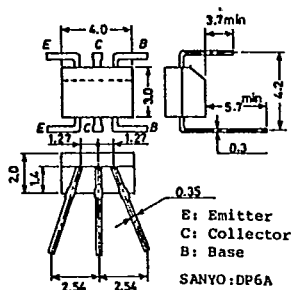
Case Outline—[2006A] unit: mm



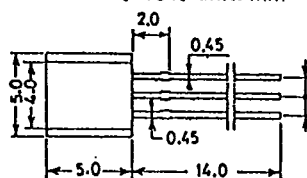
Case Outline—[2027A] unit: mm



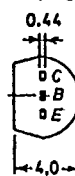
Case Outline—[2029A] unit: mm



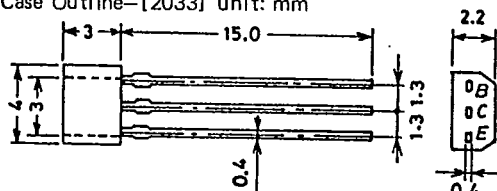
Case Outline—[2061] unit: mm



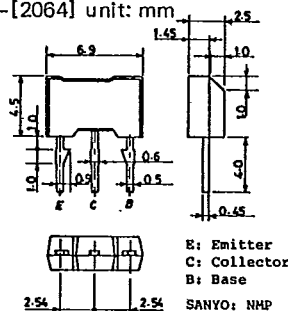
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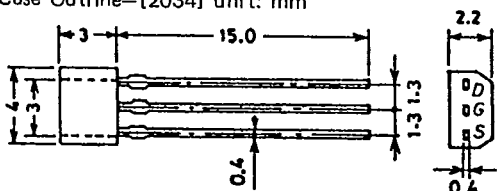
Case Outline—[2033] unit: mm



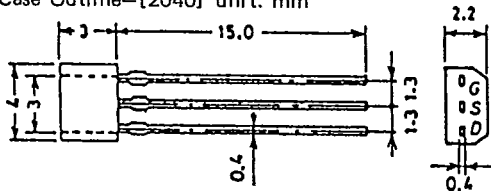
Case Outline—[2064] unit: mm



Case Outline—[2034] unit: mm



Case Outline—[2040] unit: mm



Case Outline—[2051] unit: mm

