

2025

T-29-25

N-Channel Junction Silicon FET

# Capacitor Microphone Applications

©933C

## FEATURE

- Because it has an ultra-compact outline, sets can be made compact.

## ABSOLUTE MAXIMUM RATINGS/ $T_a = 25^\circ\text{C}$

			unit
Gate-drain voltage	$V_{GDO}$	-20	V
Gate current	$I_G$	10	mA
Allowable power dissipation	$P_D$	100	mW
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage ambient temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

## ELECTRICAL CHARACTERISTICS/ $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Drain current	$I_{DSS}$	$V_{DS} = 10\text{ V}, V_{GS} = 0\text{ V}$	60*		800*	$\mu\text{A}$

[ $T_a = 25^\circ\text{C}, V_{CC} = 4.5\text{ V}, R_D = 680\ \Omega, C_{in} = 15\text{ pF}$ , in a specified test circuit (conforming with application circuit)].

			min	typ	max	unit
Transmission loss	$G_v$	$v_i = 10\text{ mV}, f = 1\text{ kHz}$		-5		dB
Transmission loss voltage-drop characteristics	$\Delta G_{vV}$	$V_{CC} = 4.5\text{ to }1.5\text{ V}, f = 1\text{ kHz}$ $v_i = 10\text{ mV}$			-3	dB
Transmission loss frequency characteristics	$\Delta G_{vf}$	$f = 1\text{ k to }110\text{ Hz}, v_i = 10\text{ mV}$			-1	dB
Input impedance	$z_i$	$f = 1\text{ kHz}$	20			M $\Omega$
Output noise voltage	$V_{NO}$	$v_i = 0, A\text{-curve}$			-110	dB

\* 2SK334 is graded as follows by drain current  $I_{DSS}$  (unit:  $\mu\text{A}$ ):

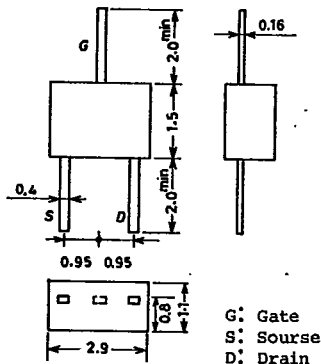
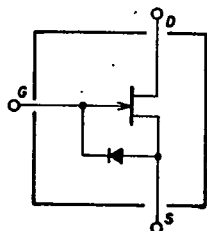
60	N11	180	150	N12	300	250	N13	450	400	N14	800
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(Note) Marking on device : N

$I_{DSS}$  rank : 11, 12, 13, 14

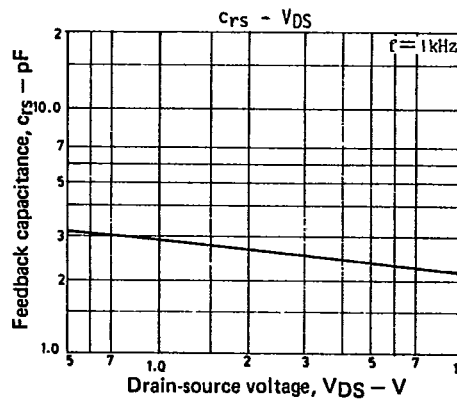
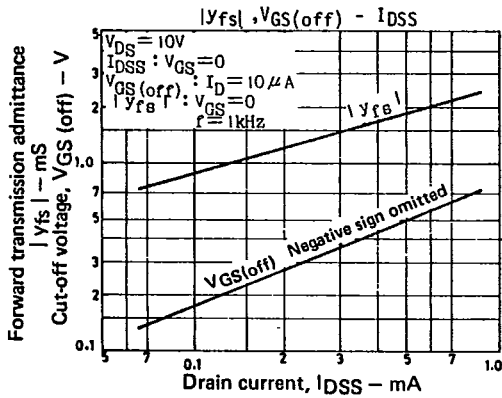
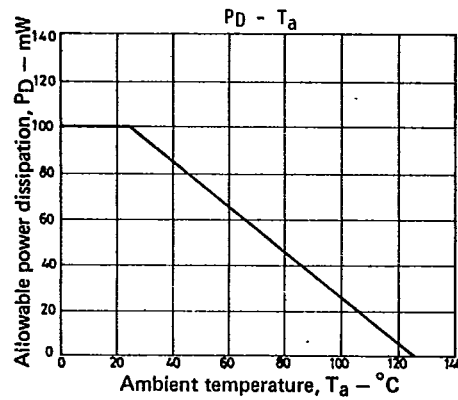
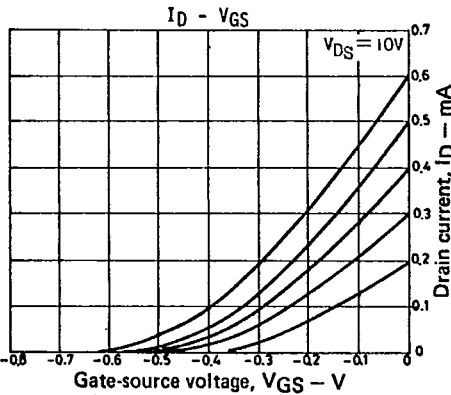
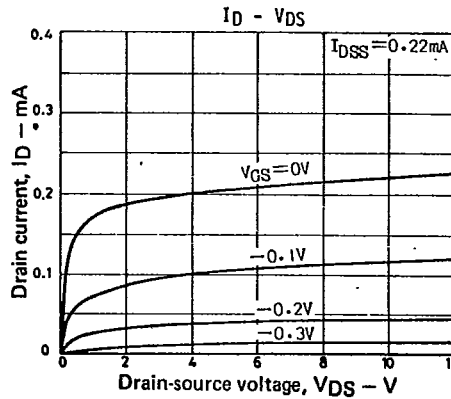
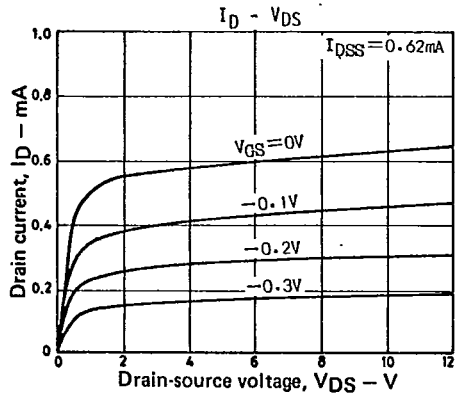
Case Outline 2025  
(unit: mm)

## Electrical Connection

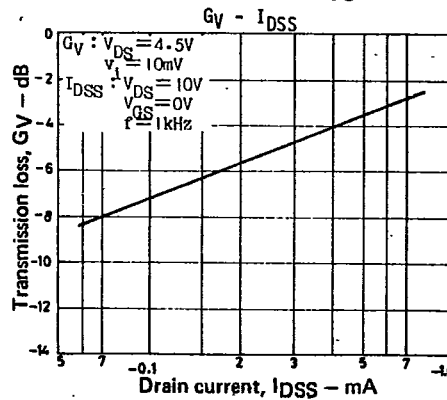
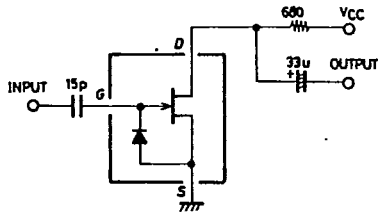


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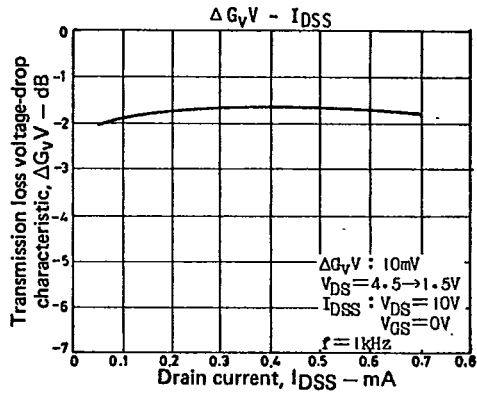
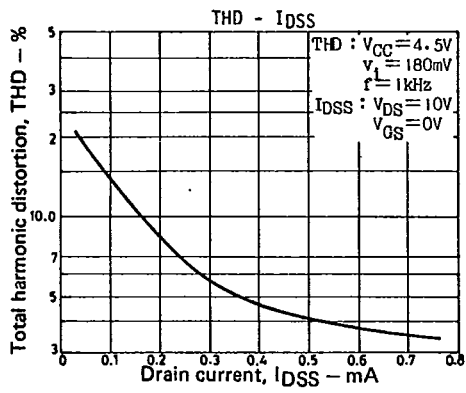


■ Sample application circuit: 2-wire system



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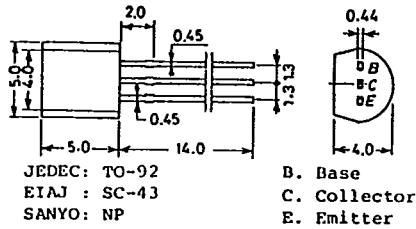


T-91-20

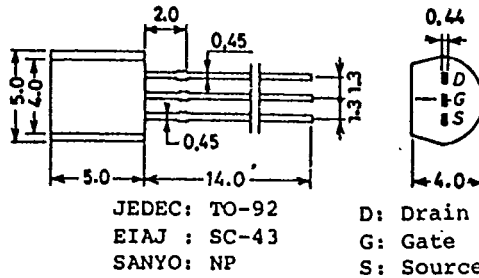
# CASE OUTLINES OF LEAD FORMED SMALL SIGNAL TRANSISTORS

- 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.

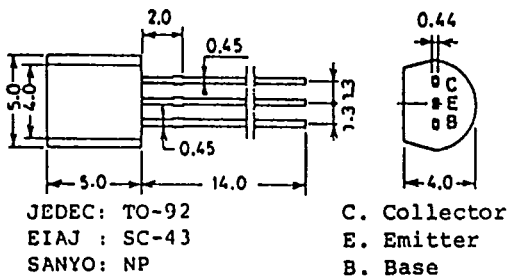
Case Outline-[2003A] unit: mm



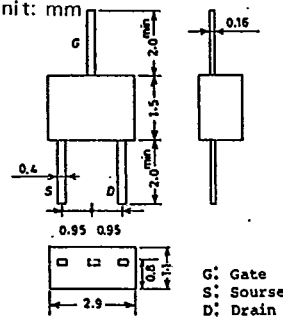
Case Outline-[2019A] unit: mm



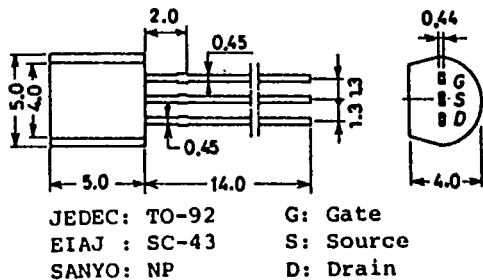
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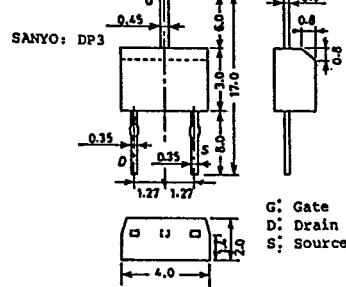
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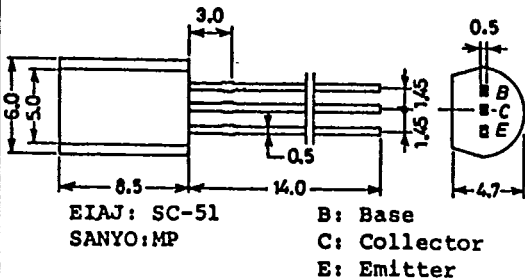
Case Outline-[2005A] unit: mm



Case Outline-[2026] unit: mm



Case Outline-[2006A] unit: mm



Case Outline-[2027A] unit: mm

