

SANYO

No.659J

2SK223

N-Channel Junction Silicon FET

High-Voltage Driver Applications**Features**

- Ultra-high blocking voltage ($V_{GDS} = -80V$).
- Due to low gate leakage current even under high voltages, it is suitable for a wide range of applications ($I_{GDL} = 1nA/V_{DS} = 50V$, $I_D = 1mA$).
- High $|Y_{fs}|$ ($|Y_{fs}| = 20mS/V_{DS} = 30V$, $f = 1kHz$).

Absolute Maximum Ratings at $T_a = 25^\circ C$

		unit
Drain-to-Source Voltage	V_{DSS}	80 V
Gate-to-Drain Voltage	V_{GDS}	-80 V
Gate Current	I_G	10 mA
Allowable Power Dissipation	P_D	400 mW
Junction Temperature	T_j	125 $^\circ C$
Storage Temperature	T_{stg}	-40 to +125 $^\circ C$

Electrical Characteristics at $T_a = 25^\circ C$

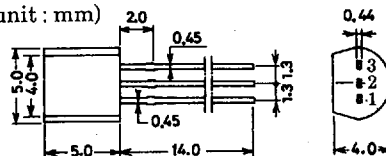
		min	typ	max	unit
G-D Breakdown Voltage	$V_{(BR)GDS}$ $I_G = -100\mu A$	-80			V
Gate Cutoff Current	I_{GSS} $V_{GS} = -30V, V_{DS} = 0$			-1.0	nA
Drain Current	I_{DSS} $V_{DS} = 30V, V_{GS} = 0$	1.2*		24*	mA
Cutoff Voltage	$V_{GS(off)}$ $V_{DS} = 30V, I_D = 10\mu A$		-0.75		V
Forward Transfer Admittance	$ Y_{fs} $ $V_{DS} = 30V, V_{GS} = 0, f = 1kHz$		20		mS
Input Capacitance	C_{iss} $V_{DS} = 30V, V_{GS} = 0, f = 1MHz$		12		pF
Reverse Transfer Capacitance	C_{rss} $V_{DS} = 30V, V_{GS} = 0, f = 1MHz$		2.5		pF
Noise Figure	NF $V_{DS} = 10V, I_D = 3mA, R_g = 10k\Omega$ $f = 1kHz$		1.5		dB

* : The 2SK223 is classified by I_{DSS} as follows : (unit : mA)

1.2	D	3.0	2.5	E	6.0	5.0	F	12.0	10	G	24
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Package Dimensions 2019B

(unit : mm)



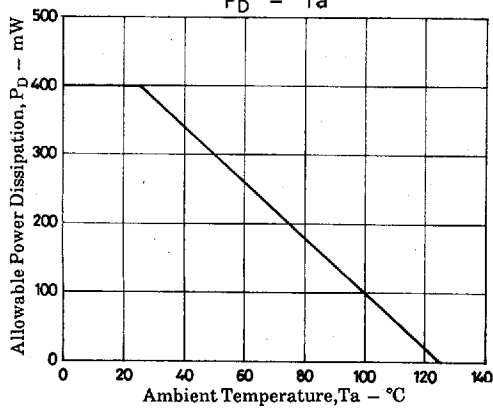
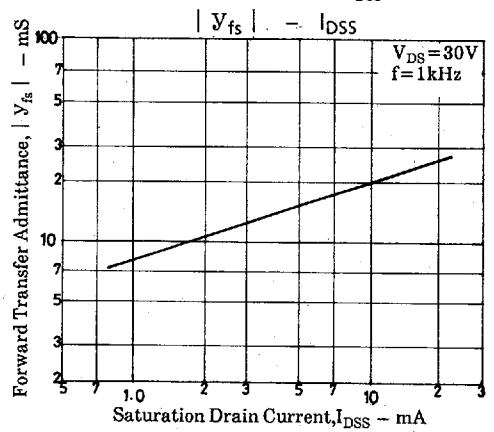
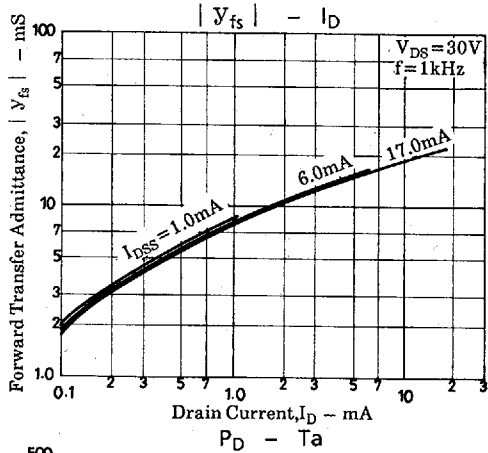
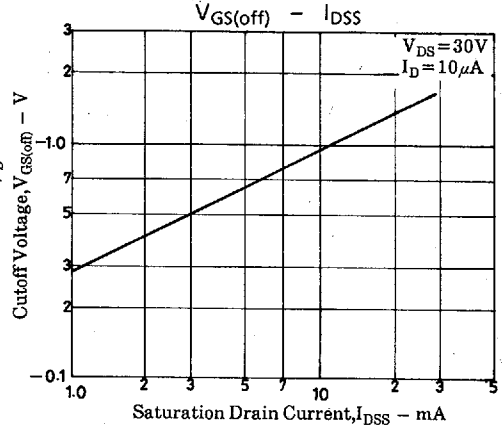
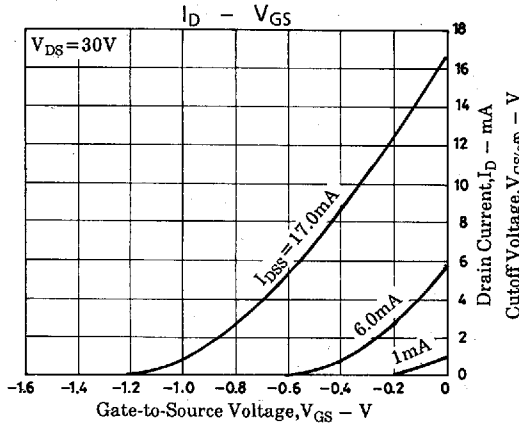
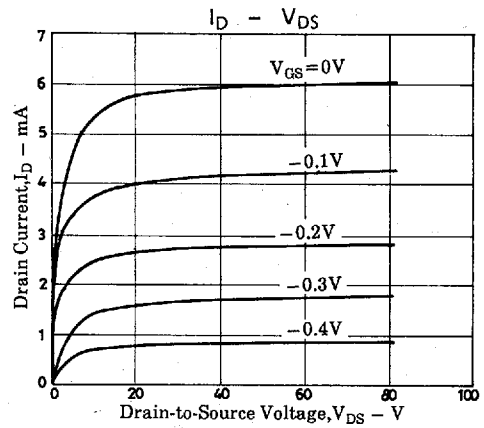
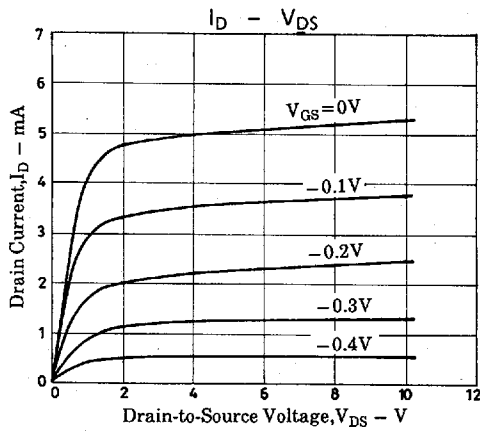
JEDEC: TO-92
EIAJ: SC-43
SANYO: NP

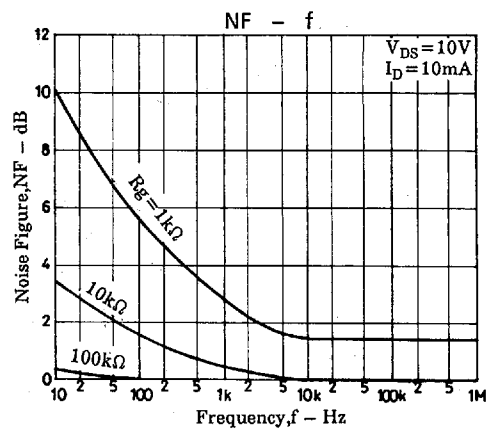
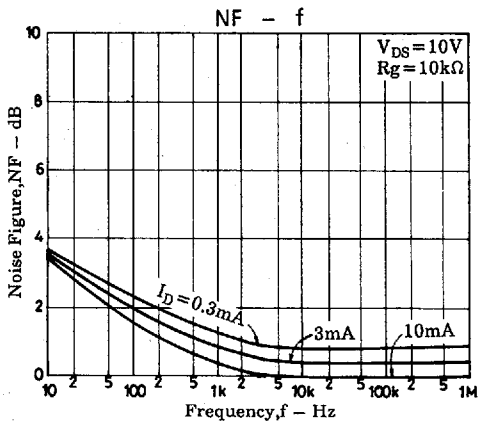
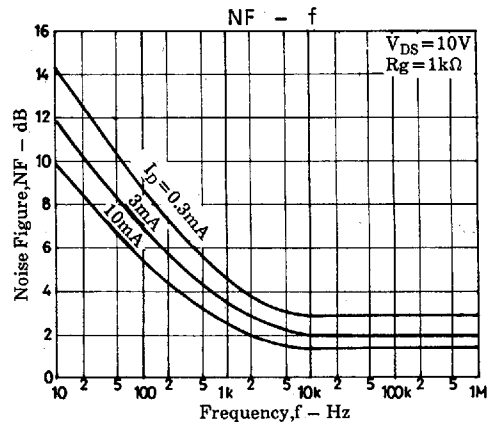
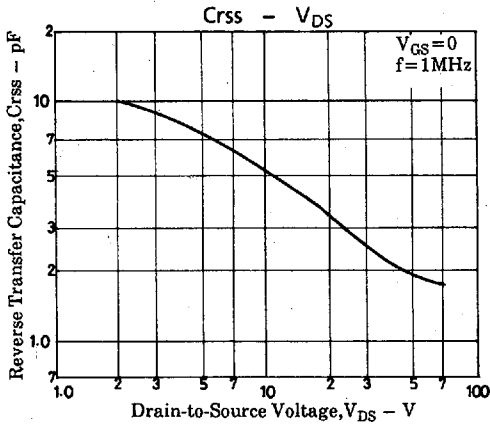
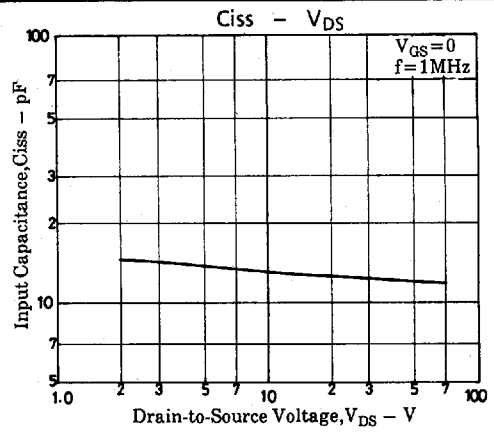
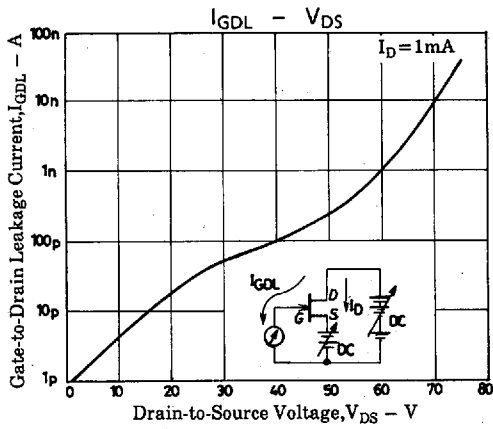
1: Source
2: Gate
3: Drain

Specifications and information herein are subject to change without notice.

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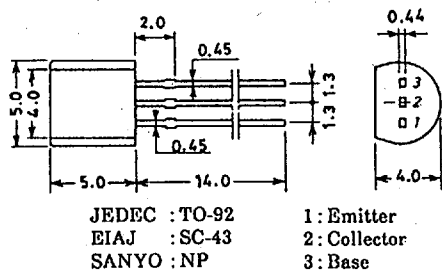




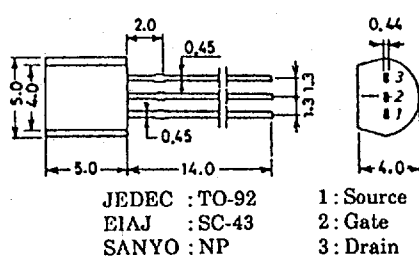
CASE OUTLINES OF LEAD FORMED SMALL SIGNAL TRANSISTORS

- 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.

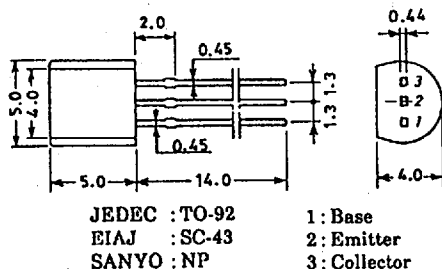
Case Outline 2003A/2003B (unit : mm)



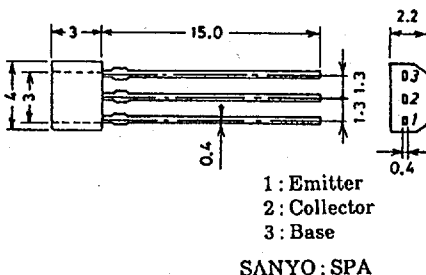
Case Outline 2019A/2019B (unit : mm)



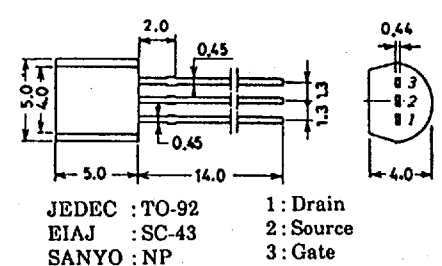
Case Outline 2004A (unit : mm)



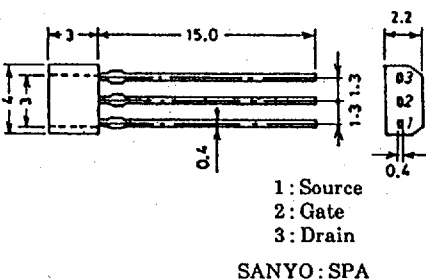
Case Outline 2033 (unit : mm)



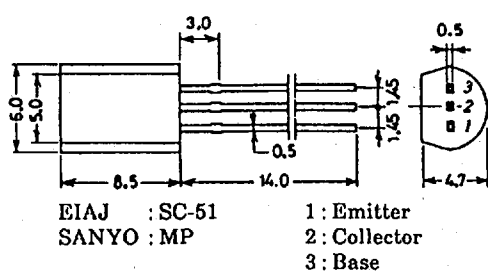
Case Outline 2005A (unit : mm)



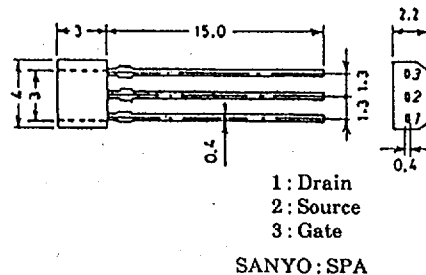
Case Outline 2034/2034A (unit : mm)



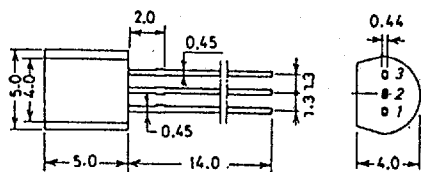
Case Outline 2006A (unit : mm)



Case Outline 2040 (unit : mm)



Case Outline 2061 (unit : mm)



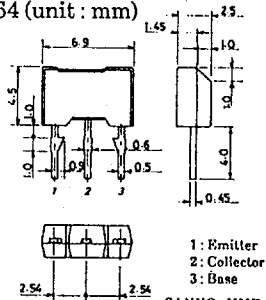
JEDEC : TO-92

EIAJ : SC-43

SANYO : NP

- 1: Emitter
- 2: Base
- 3: Collector

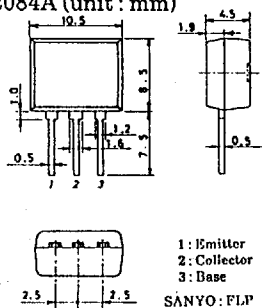
Case Outline 2064 (unit : mm)



SANYO : NMP

- 1: Emitter
- 2: Collector
- 3: Base

Case Outline 2084A (unit : mm)



SANYO : FLIP

- 1: Emitter
- 2: Collector
- 3: Base