

2SK212

N-Channel Junction Silicon FET

FM Tuner Applications

FEATURES

- Ideal for FM tuners in low voltage radios, car radios, etc.
- Because it is compactly packaged, sets can be made compact.
- Small c_{rss} ($c_{rss} = 0.04$ pF typ).
- High $|y_{fs}|$ ($|y_{fs}| = 6.0$ mS typ).

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

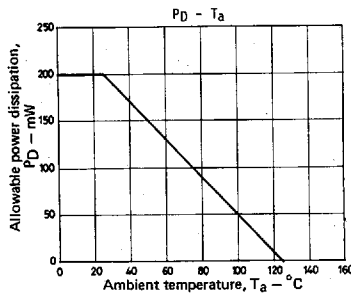
Parameter	Symbol	Value	unit
Gate-drain voltage	V _{GDO}	-20	V
Gate current	I _G	10	mA
Drain current	I _D	20	mA
Allowable power dissipation	P _D	200	mW
Junction temperature	T _j	125	°C
Storage ambient temperature	T _{stg}	-55 to +125	°C

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

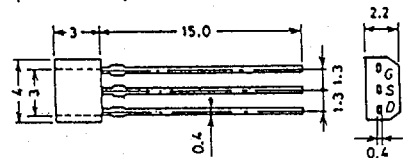
Parameter	Symbol	Conditions	min	typ	max	unit
Gate-drain breakdown voltage	V(BR) GDO	I _G = -10 μ A	-20			V
Gate cut-off current	I _{GSS}	V _{GS} = -0.5 V, V _{DS} = 0 V			-10	nA
Drain current	I _{DSS}	V _{DS} = 5 V, V _{GS} = 0 V	0.6 *		12.0 *	mA
Cut-off voltage	V _{GS} (off)	V _{DS} = 5 V, I _D = 10 μ A			-2.5	V
Forward transmission admittance	$ y_{fs} $ (1)	V _{DS} = 5 V, V _{GS} = 0 V, f = 1 kHz	2.0	6.0		mS
Forward transmission admittance	$ y_{fs} $ (2)	V _{DS} = 5 V, V _{GS} = 0 V, f = 100 MHz	2.0	6.0		mS
Input capacitance	C _{iss}	V _{DS} = 5 V, V _{GS} = 0 V, f = 1 MHz		4.0		pF
Feedback capacitance	C _{rss}	V _{DS} = 5 V, V _{GS} = 0 V, f = 1 MHz	0.04	0.15		pF
Output capacitance	C _{oss}	V _{DS} = 5 V, V _{GS} = 0 V, f = 1 MHz		4.0		pF
Power gain	PG	V _{DS} = 5 V, V _{GS} = 0 V, f = 100 MHz		21		dB
		Refer to specified test circuit				
Noise figure	NF	Refer to specified test circuit	3.5	6.0		dB

* : 2SK212 is graded as follows by I_{DSS}: (unit: mA).

0.6	C	1.5	1.2	D	3.0	2.5	E	6.0	5.0	F	12.0
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Case Outline 2040 (unit:mm)

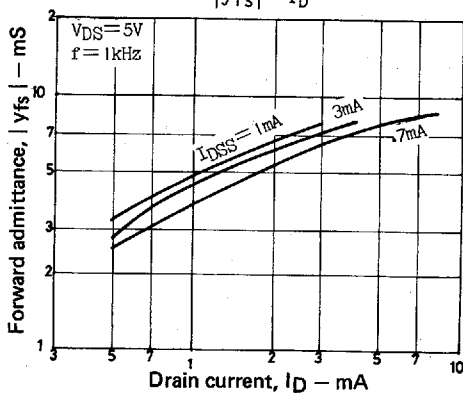
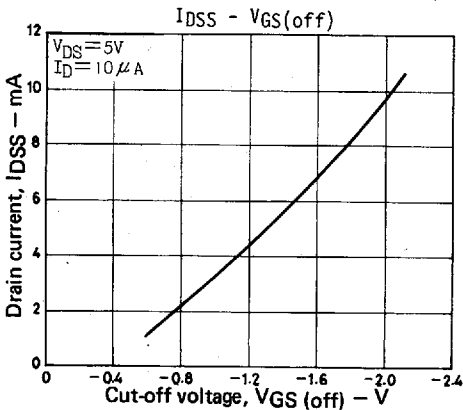
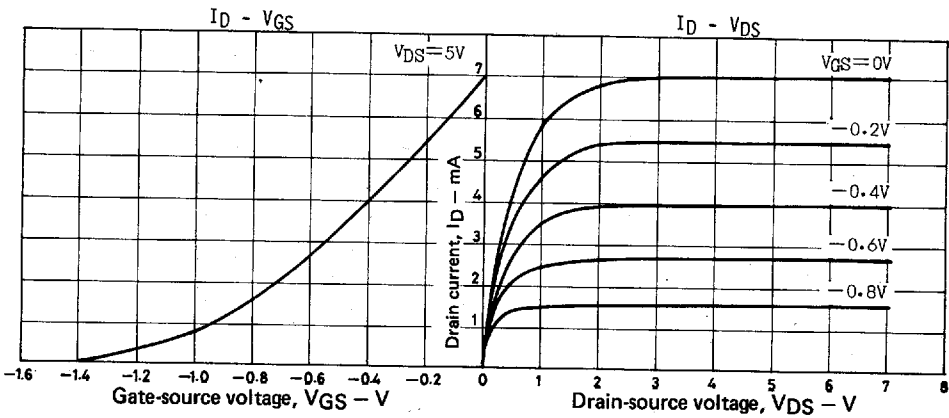
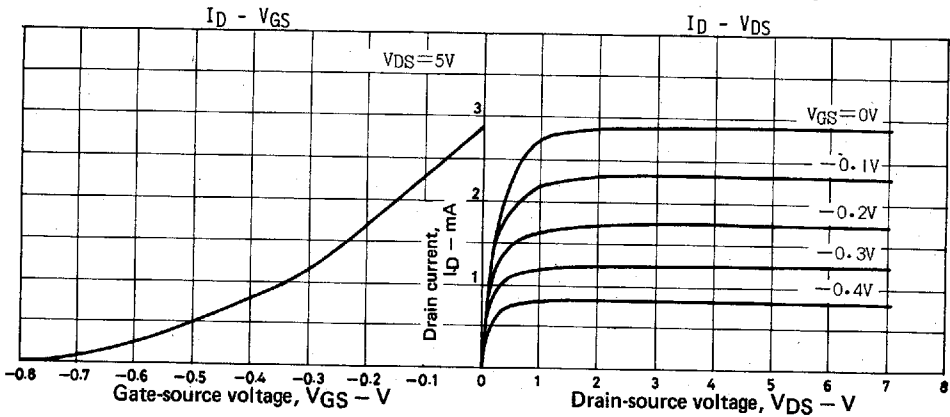
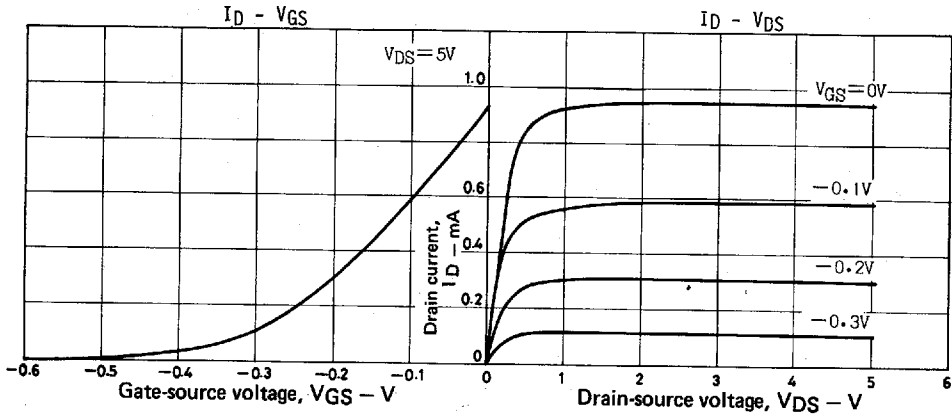


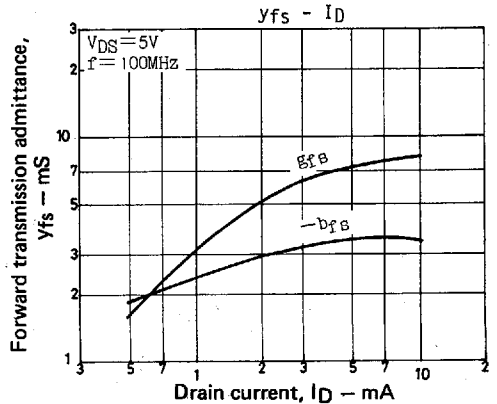
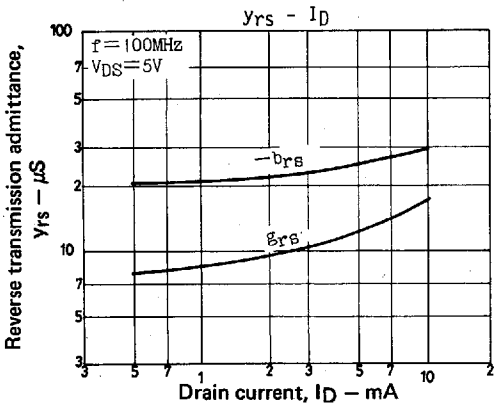
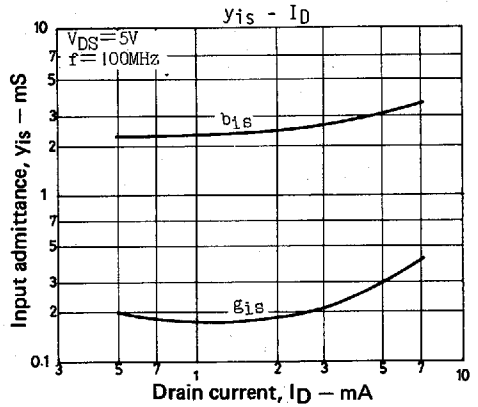
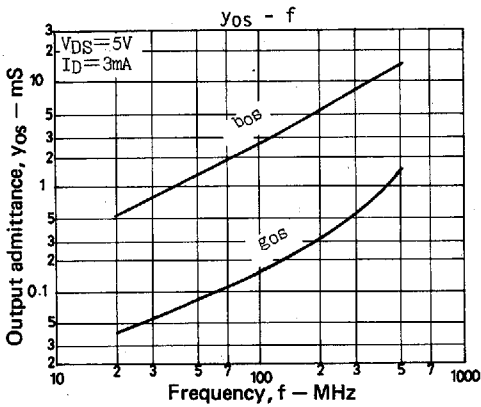
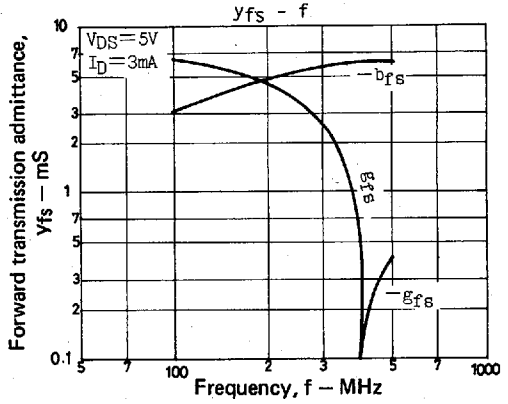
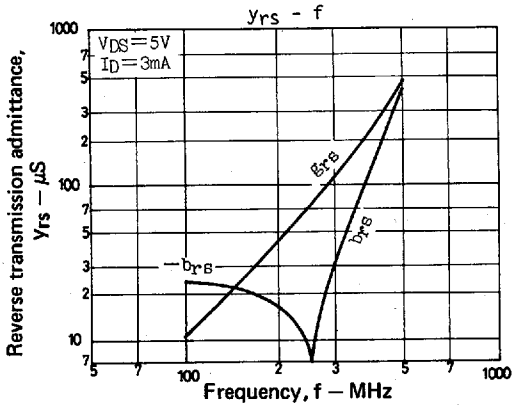
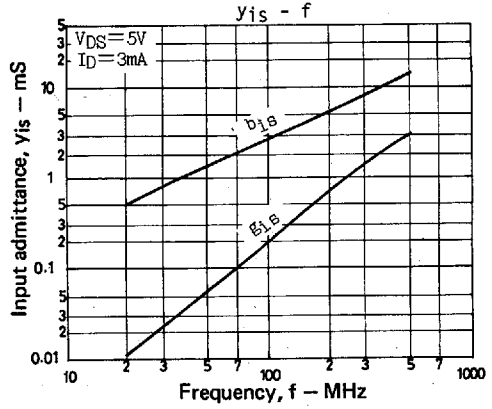
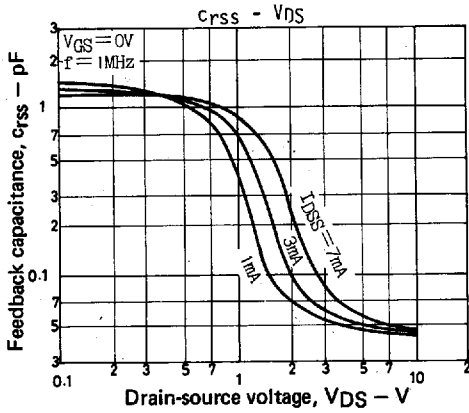
G: Gate
S: Source
D: Drain
SANYO: SPA

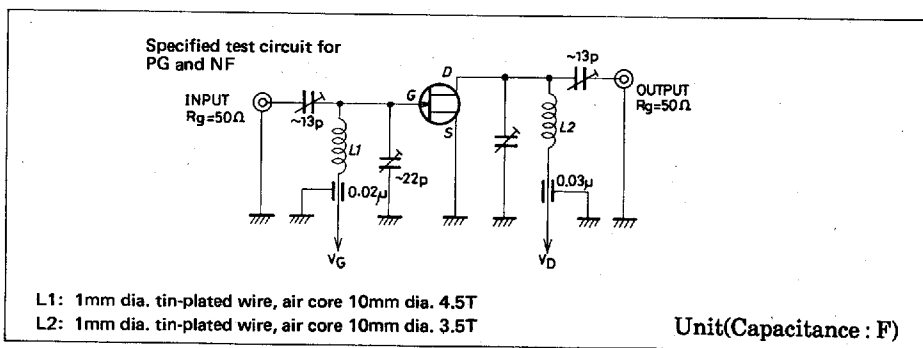
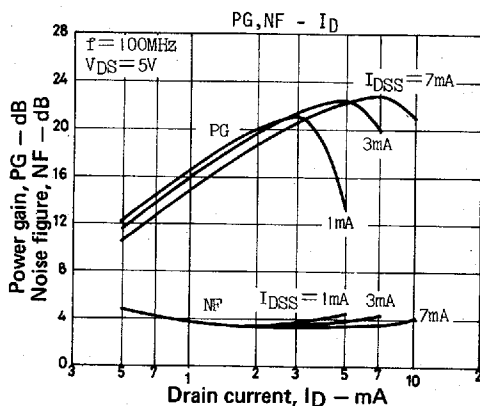
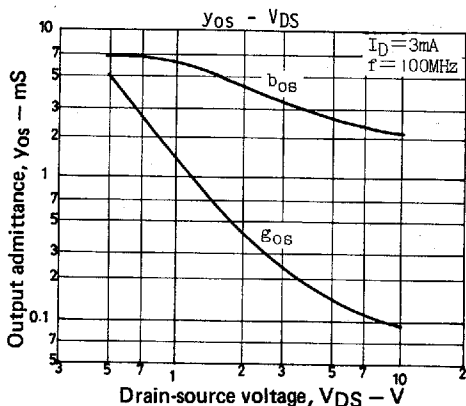
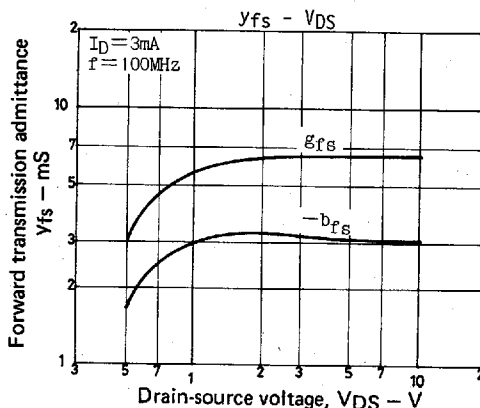
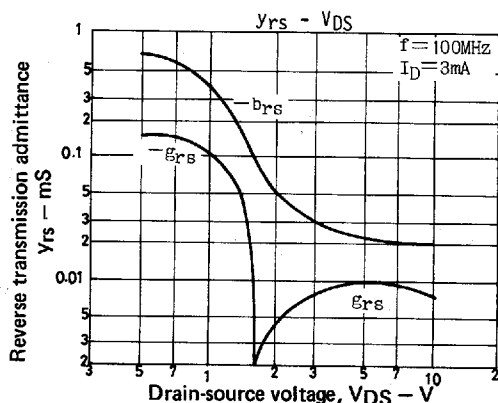
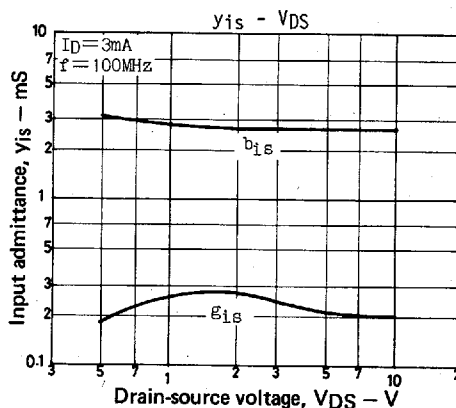
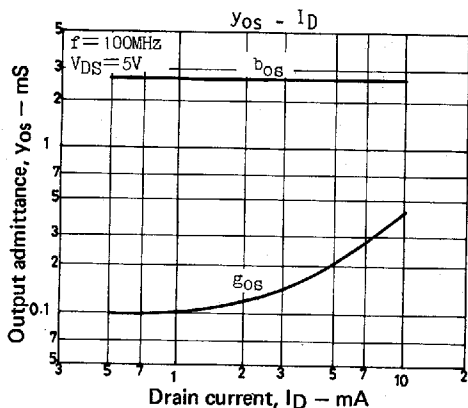
Specifications and information herein are subject to change without notice.

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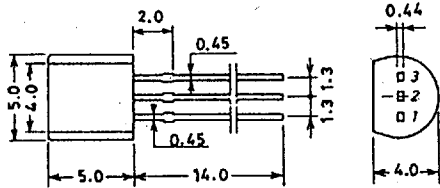




CASE OUTLINES OF LEAD FORMED SMALL SIGNAL TRANSISTORS

- 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.

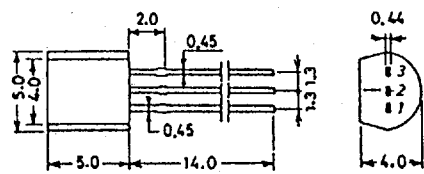
Case Outline 2003A/2003B (unit : mm)



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

1 : Emitter
2 : Collector
3 : Base

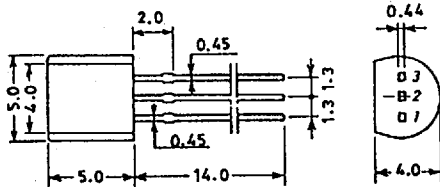
Case Outline 2019A/2019B (unit : mm)



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

1 : Source
2 : Gate
3 : Drain

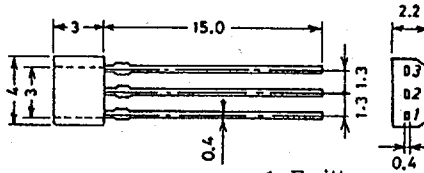
Case Outline 2004A (unit : mm)



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

1 : Base
2 : Emitter
3 : Collector

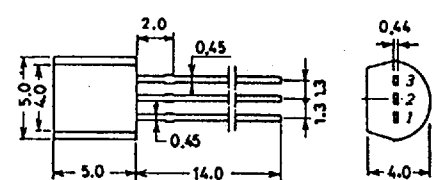
Case Outline 2033 (unit : mm)



1 : Emitter
2 : Collector
3 : Base

SANYO : SPA

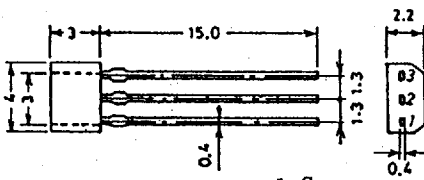
Case Outline 2005A (unit : mm)



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

1 : Drain
2 : Source
3 : Gate

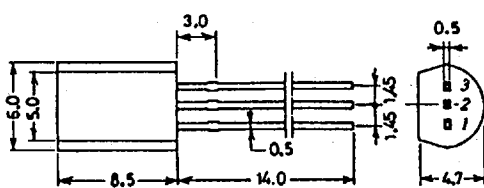
Case Outline 2034/2034A (unit : mm)



1 : Source
2 : Gate
3 : Drain

SANYO : SPA

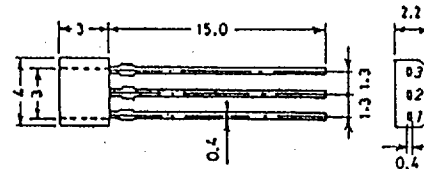
Case Outline 2006A (unit : mm)



EIAJ : SC-51
SANYO : MP

1 : Emitter
2 : Collector
3 : Base

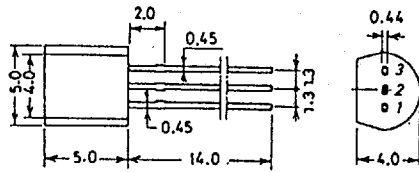
Case Outline 2040 (unit : mm)



1 : Drain
2 : Source
3 : Gate

SANYO : SPA

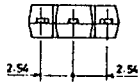
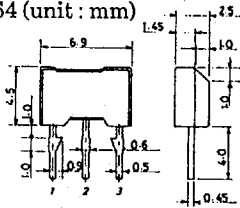
Case Outline 2061 (unit : mm)



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

1: Emitter
2: Base
3: Collector

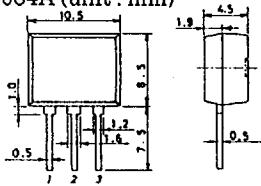
Case Outline 2064 (unit : mm)



1: Emitter
2: Collector
3: Base

SANYO : NMP

Case Outline 2084A (unit : mm)



1: Emitter
2: Collector
3: Base

SANYO : FLP