2SK932

T-31-25

2050

N-Channel Junction Silicon FET

High-Frequency Low-Noise Amp Applications

©2841

Applications

- AM tuner RF amp, low-noise amp

Features

- Adoption of FBET process
- Large $|y_{fs}|$
- Small c_{iss}
- Very low noise figure
- Very small-sized package permitting 2SK932-applied sets to be made smaller and slimmer

Absolute Maximum Ratings at Ta = 25°C

			unit
Drain to Source Voltage	V_{DSX}	15	V
Gate to Drain Voltage	V_{GDS}	−15	V
Gate Current	I_G	10	mA
Drain Current	I_D	50	mA
Allowable Power Dissipation	P_D	200	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	−55 to +150	°C

Electrical Characteristics at Ta = 25°C

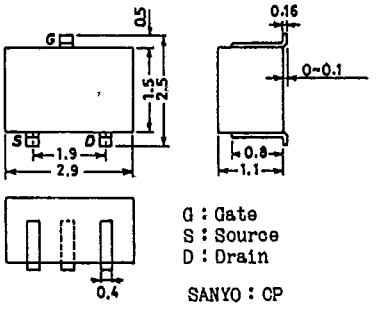
			min	typ	max	unit
Gate to Drain Breakdown Voltage	$V_{(BR)GDS}$	$I_G=-10\mu A, V_{DS}=0V$	−15			V
Gate Cutoff Current	I_{GSS}	$V_{GS}=-10V, V_{DS}=0V$			−1.0	nA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=5V, I_D=100\mu A$	−0.2	−0.6	−1.4	V
Drain Current	I_{DSS}	$V_{DS}=5V, V_{GS}=0V$	※5.0		※24.0	mA
Forward Transfer Admittance	$\|y_{fs}\|$	$V_{DS}=5V, V_{GS}=0V, f=1kHz$	25	50		mS
Input Capacitance	c_{iss}	$V_{DS}=5V, V_{GS}=0V, f=1MHz$		10		pF
Reverse Transfer Capacitance	c_{rss}	$V_{DS}=5V, V_{GS}=0V, f=1MHz$		3.0		pF
Noise Figure	NF	$V_{DS}=5V, Rg=1k\Omega, I_D=1mA, f=1kHz$		1.5		dB

※ : The 2SK932 is classified by I_{DSS} as follows (unit : mA) :

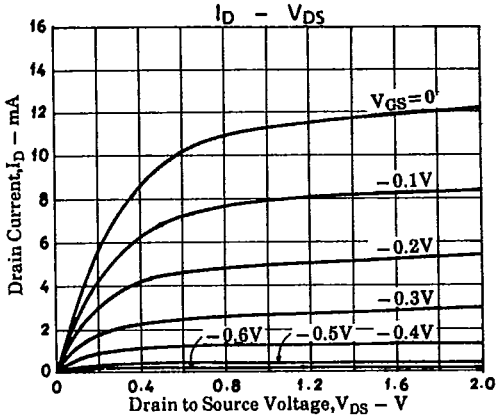
5.0	21	8.5	7.3	22	12.0	10.0	23	17.0	14.5	24	24.0

(Note) Marking : E
I_{DSS} rank : 21,22,23,24

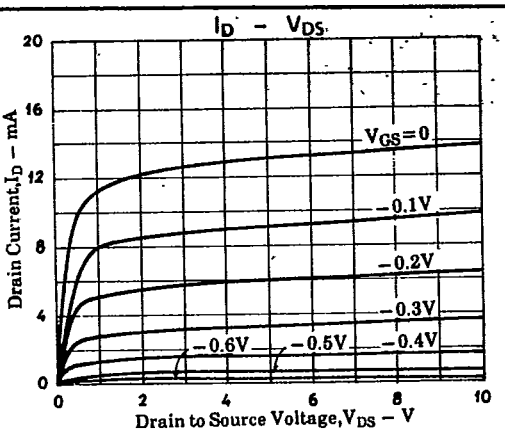
Case Outline 2050
(unit : mm)



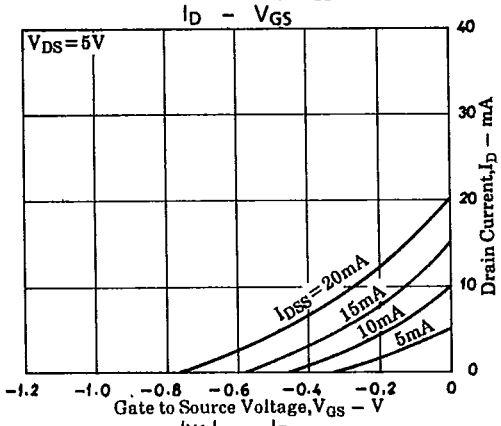
I_D – V_{DS}



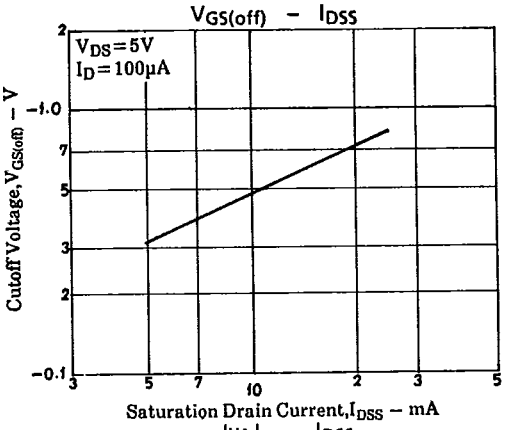
I_D – V_{DS}



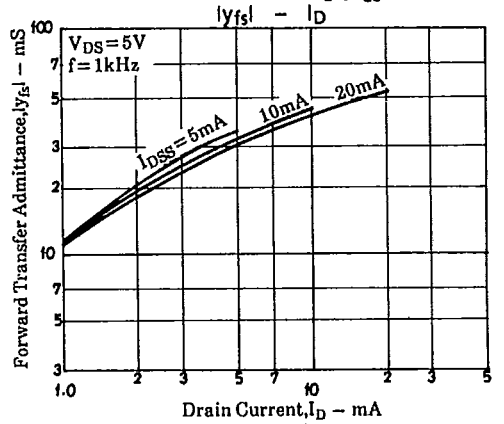
I_D – V_{GS}



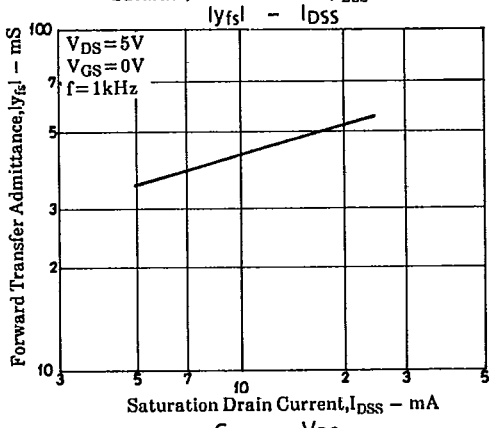
$V_{GS(off)}$ – I_{DSS}



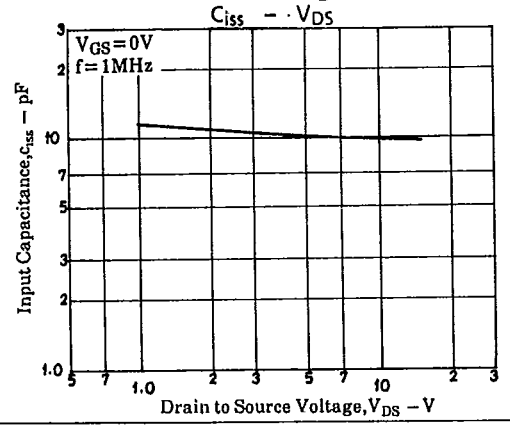
$|y_{fs}|$ – I_D



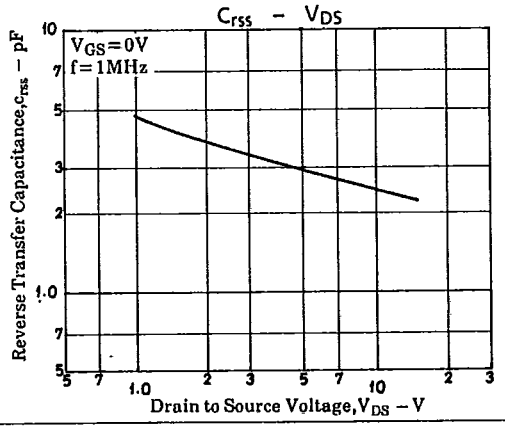
$|y_{fs}|$ – I_{DSS}



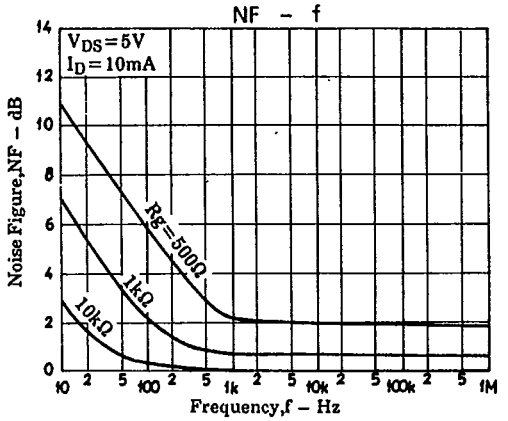
C_{iss} – V_{DS}



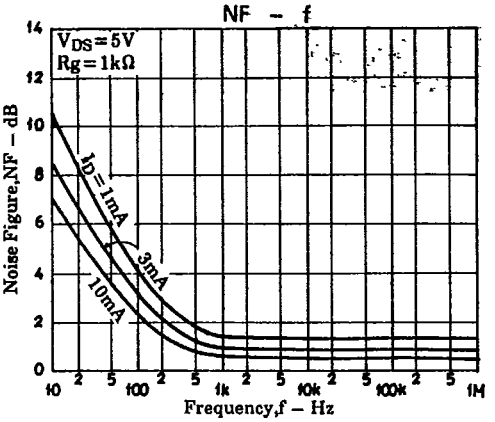
C_{rss} – V_{DS}



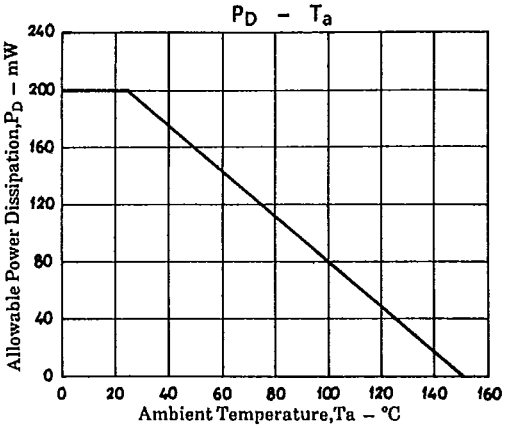
NF – f


VDS=5V
ID=10mA
Rg=500Ω
1kΩ
10kΩ
Noise Figure,NF – dB
Frequency,f – Hz

NF – f


VDS=5V
Rg=1kΩ
ID=1mA
3mA
10mA
Noise Figure,NF – dB
Frequency,f – Hz

PD – Ta


Allowable Power Dissipation,PD – mW
Ambient Temperature,Ta – °C

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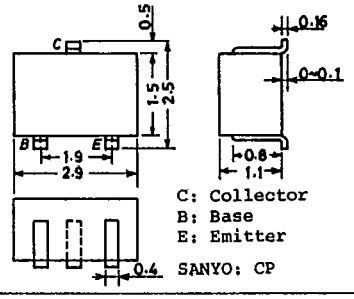
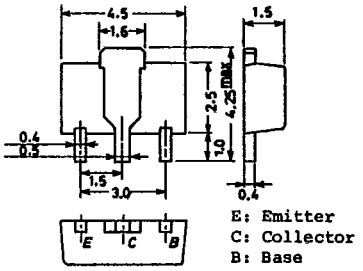
CASE OUTLINES OF SURFACE MOUNT TRANSISTORS

- All of Sanyo surface mount 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.

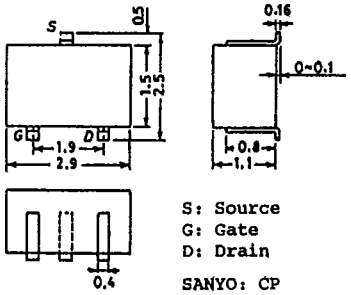
Case Outline—[2018A] unit: mm



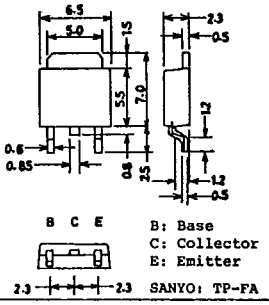
Case Outline—[2038] unit: mm



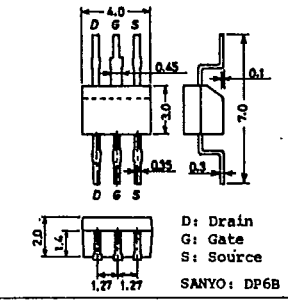
Case Outline—[2024A] unit: mm



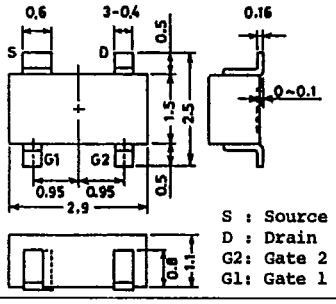
Case Outline—[2044] unit: mm



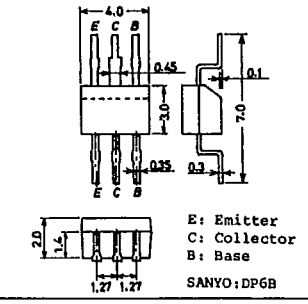
Case Outline—[2028A] unit: mm



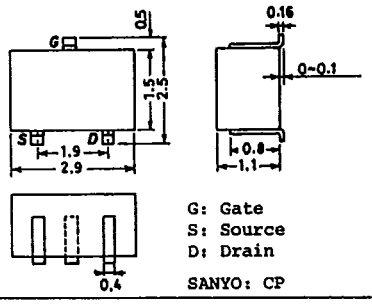
Case Outline—[2046] unit: mm



Case Outline—[2030A] unit: mm



Case Outline—[2050] unit: mm



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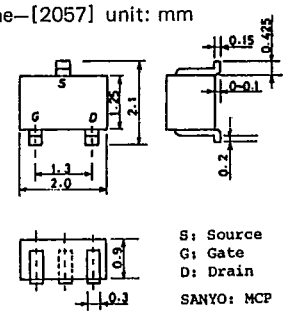
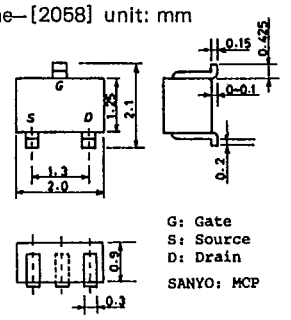
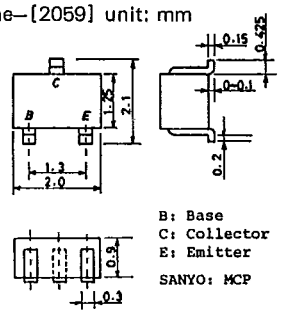
Case Outline—[2057] unit: mm



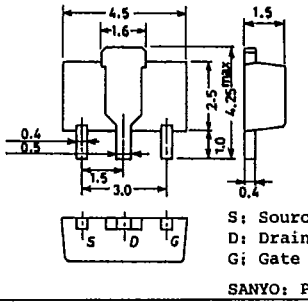
Case Outline—[2058] unit: mm



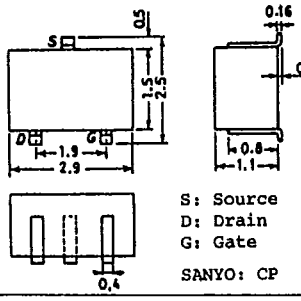
Case Outline—[2059] unit: mm



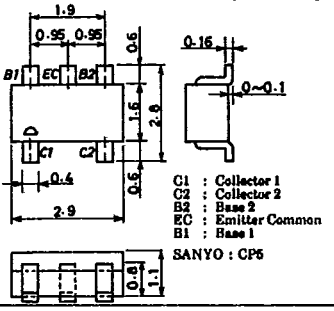
Case Outline—[2062] unit: mm



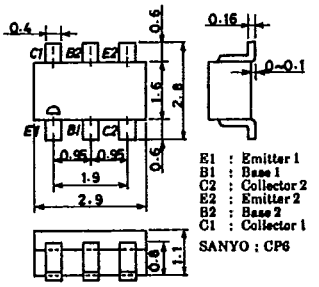
Case Outline—[2065] unit: mm



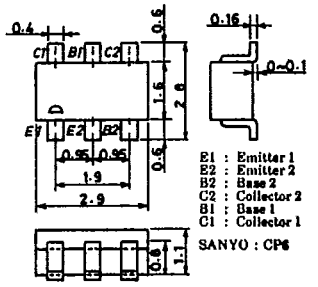
Case Outline—[2066] unit: mm



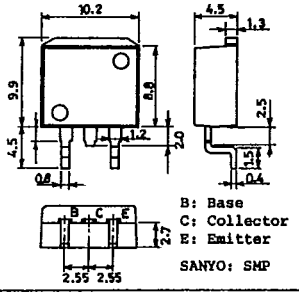
Case Outline—[2067] unit: mm



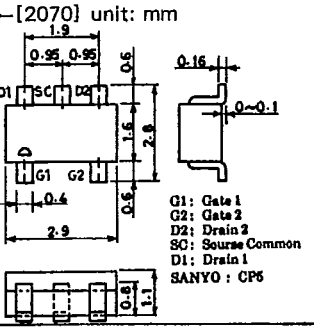
Case Outline—[2068] unit: mm



Case Outline—[2069] unit: mm



Case Outline—[2070] unit: mm



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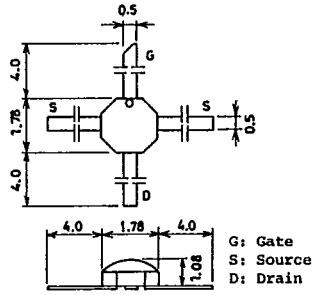
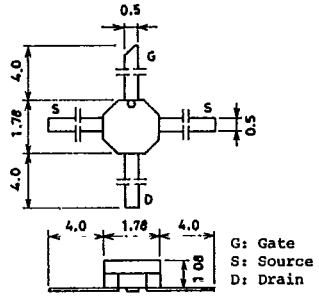
Case Outline—[2071] unit: mm



Case Outline—[2072] unit: mm



Case Outline—[2073] unit: mm