

T-27-27



2027A

N-Channel Junction Silicon Composite FET

# Differential Amp Applications

©9328

## Features

- Especially suited for use in first stage of differential amp.
- High breakdown voltage and wide dynamic range
- Possible to form a matched pair

## Absolute Maximum Ratings at Ta=25°C

			unit
Drain-source Voltage	V <sub>DSS</sub>	80	V
Gate-Drain Voltage	V <sub>GDS</sub>	-80	V
Gate Current	I <sub>G</sub>	10	mA
Drain Current	I <sub>D</sub>	20	mA
Allowable Power Dissipation	P <sub>D</sub> 1 unit	200	mW
Total Power Dissipation	P <sub>T</sub>	400	mW
Junction Temperature	T <sub>j</sub>	125	°C
Storage Temperature	T <sub>stg</sub>	-40 to +125	°C

## Electrical Characteristics at Ta=25°C

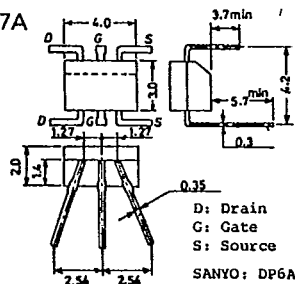
			min	typ	max	unit
G-D Breakdown Voltage	V(BR) <sub>GDS</sub> I <sub>G</sub> =-100uA		-80			V
Gate Cutoff Current	I <sub>GSS</sub> V <sub>GS</sub> =-30V, V <sub>DS</sub> =0V			-1.0		nA
Drain Current	I <sub>DSS</sub> V <sub>DS</sub> =30V, V <sub>GS</sub> =0V, pulse	1.2*			12*	mA
Drain Current Ratio	- V <sub>DS</sub> =30V, I <sub>DSSsmall</sub> /I <sub>DSSlarge</sub>	0.9				
Cutoff Voltage	V <sub>GS</sub> (off) V <sub>DS</sub> =30V, I <sub>D</sub> =10uA		-0.75	-3.0		V
G-S Voltage Difference	ΔV <sub>GS</sub> V <sub>GSlarge</sub> -V <sub>GSsmall</sub> , V <sub>DS</sub> =30V, I <sub>D</sub> =1mA				30	mV
Forward Transfer Admittance	y <sub>fs</sub>   V <sub>DS</sub> =30V, V <sub>GS</sub> =0V, f=1KHz	5	15			mS
Forward Transfer Admittance Ratio	- V <sub>DS</sub> =30V,  y <sub>fs</sub>   <sub>small</sub> / y <sub>fs</sub>   <sub>large</sub>	0.9				
Input Capacitance	C <sub>iss</sub> V <sub>DS</sub> =30V, V <sub>GS</sub> =0V, f=1MHz			11		pF
Reverse Transfer Capacitance	C <sub>rss</sub> V <sub>DS</sub> =30V, V <sub>GS</sub> =0V, f=1MHz			2.0		pF
Noise Figure	N <sub>F</sub> V <sub>DS</sub> =30V, I <sub>D</sub> =3mA, R <sub>g</sub> =10kohm, f=1KHz			1.0		dB
D-G Leak Current	I <sub>GDL</sub> V <sub>DS</sub> =50V, I <sub>D</sub> =1mA		0.5			nA
Output Noise Figure	V <sub>NO</sub> Refer to specified test circuit. V <sub>DS</sub> =10V, I <sub>D</sub> =1mA, R <sub>g</sub> =0ohm, 100dB (IHF-A) Amp			65		mV

\* The 2SK333 is classified by I<sub>DSS</sub> small as follows (unit: mA):

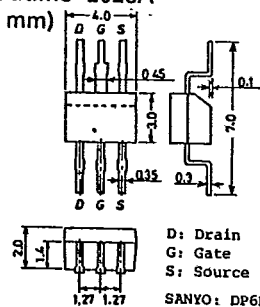
1.2	D	3.0	2.5	E	6.0	5.0	F	12.0
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The 2SK333 is provided with a surface mounted package.

Case Outline 2027A (unit: mm)

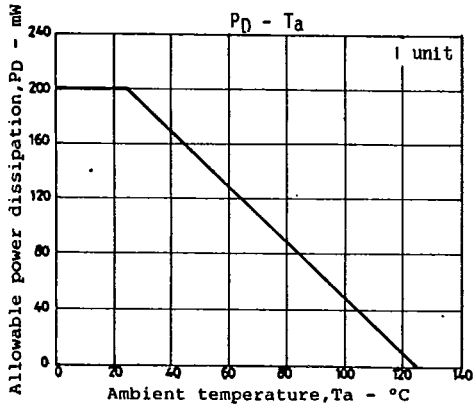
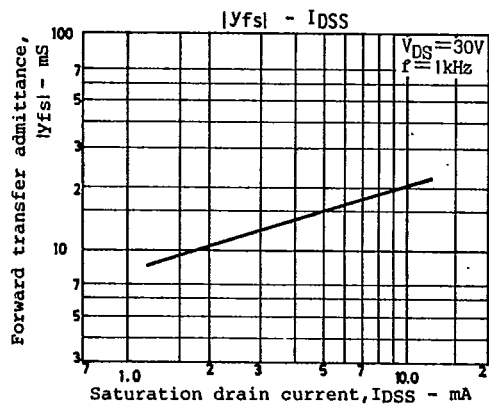
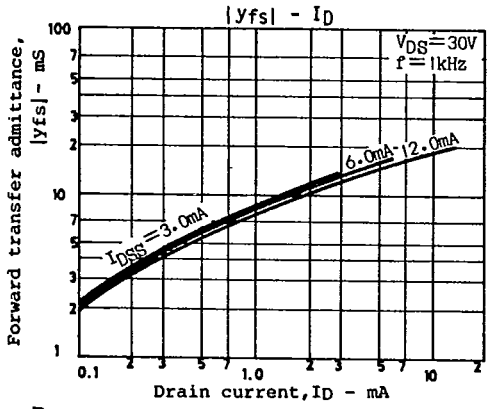
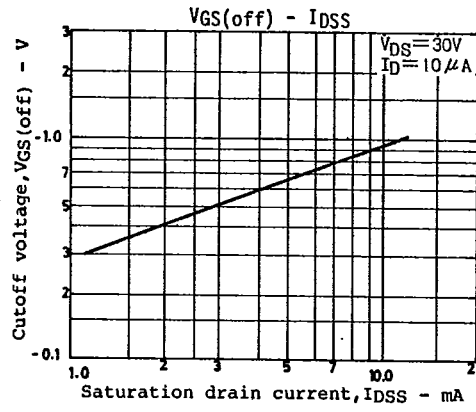
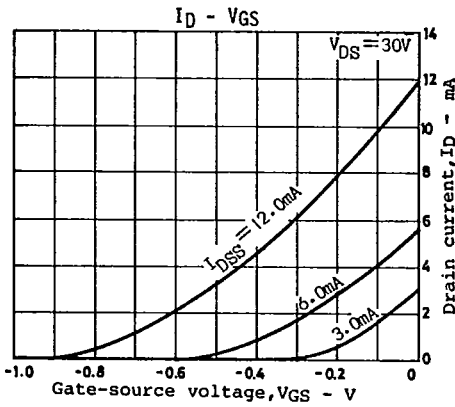
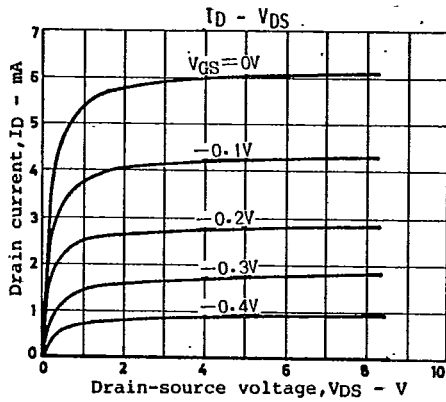
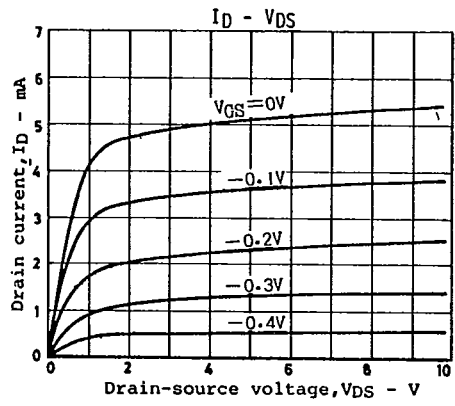


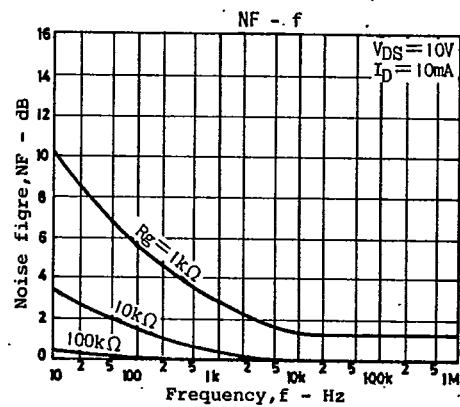
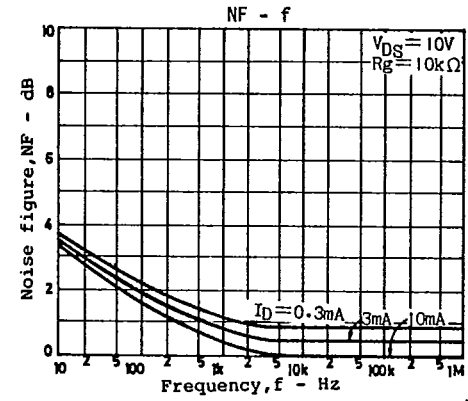
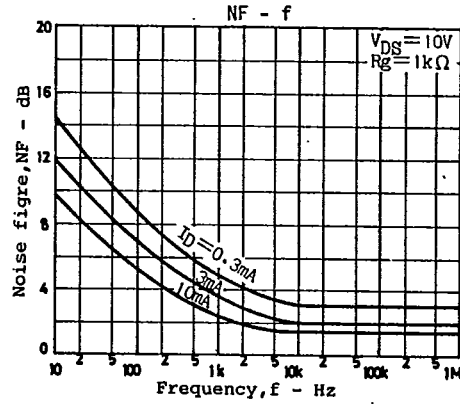
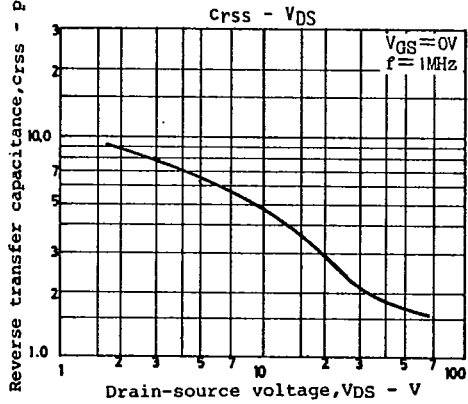
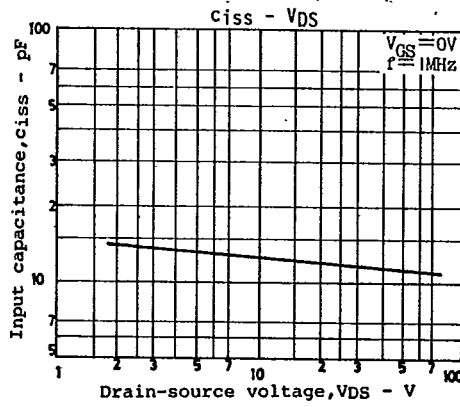
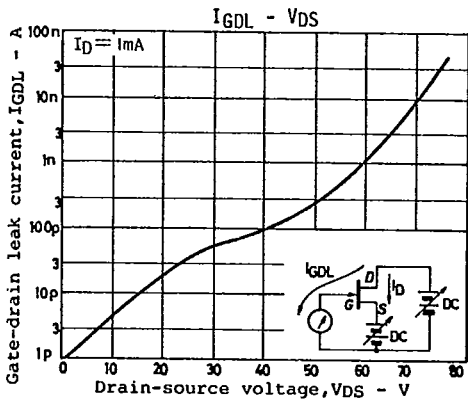
Case Outline 2028A (unit: mm)



2SK333

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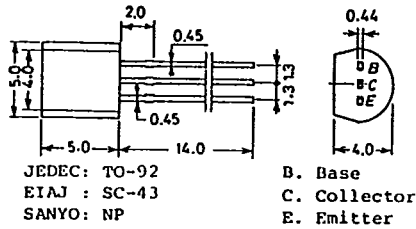


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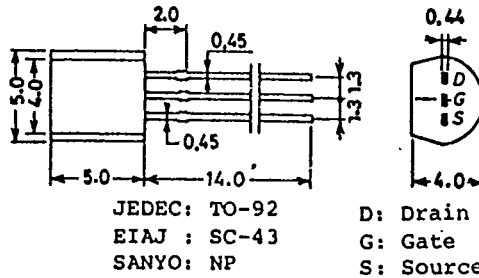
# CASE OUTLINES OF LEAD FORMED SMALL SIGNAL TRANSISTORS

- 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.

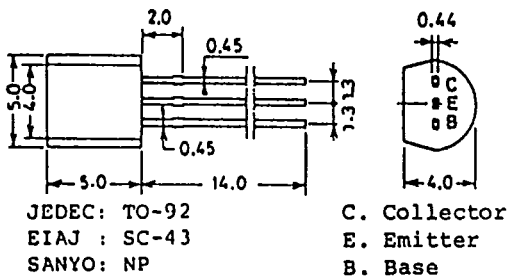
Case Outline-[2003A] unit: mm



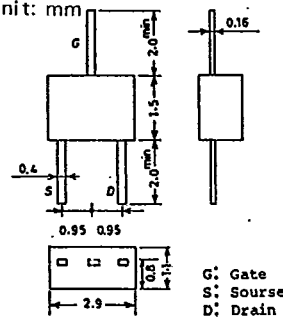
Case Outline-[2019A] unit: mm



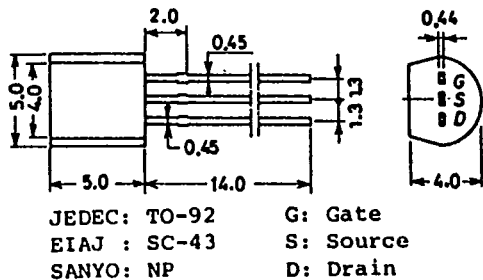
Case Outline-[2004A] unit: mm



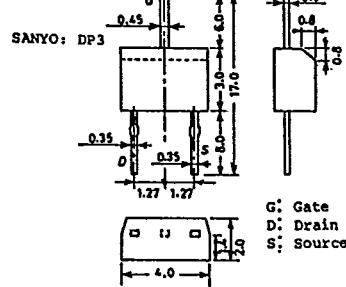
Case Outline-[2025] unit: mm



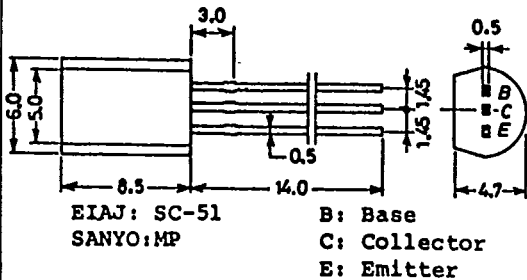
Case Outline-[2005A] unit: mm



Case Outline-[2026] unit: mm



Case Outline-[2006A] unit: mm



Case Outline-[2027A] unit: mm

