

2SK333

2027A

N-Channel Junction
Silicon Composite FET

T-27-27

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 _{DSS}	80	V
Gate-Drain Voltage	V _{GDS}	-80	V
Gate Current	I _G	10	mA
Drain Current	I _D	20	mA
Allowable Power Dissipation	P _D	1 unit	200 mW
Total Power Dissipation	P _T	400	mW
Junction Temperature	T _j	125	°C
Storage Temperature	T _{stg}	-40 to +125	°C

Electrical Characteristics at Ta=25°C

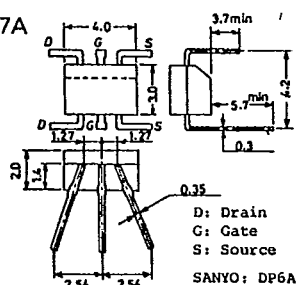
			min	typ	max	unit
G-D Breakdown Voltage	V(BR) _{GDS}	I _G =-100uA	-80			V
Gate Cutoff Current	I _{GSS}	V _{GS} =-30V, V _{DS} =0V			-1.0	nA
Drain Current	I _{DSS}	V _{DS} =30V, V _{GS} =0V, pulse	1.2*		12*	mA
Drain Current Ratio	-	V _{DS} =30V,	0.9			
		I _{DSSsmall} /I _{DSSlarge}				
Cutoff Voltage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

* The 2SK333 is classified by I_{DSS} small as follows (unit: mA):

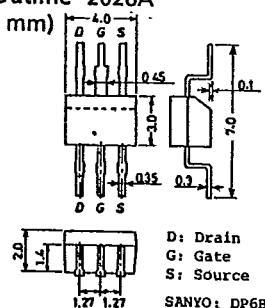
1.2	D	3.0	2.5	E	6.0	5.0	F	12.0
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The 2SK333 is provided with a surface mounted package.

Case Outline 2027A
(unit: mm)

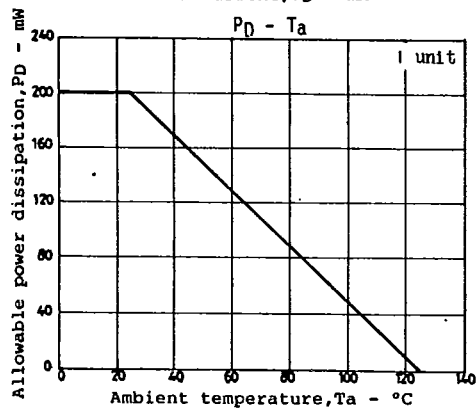
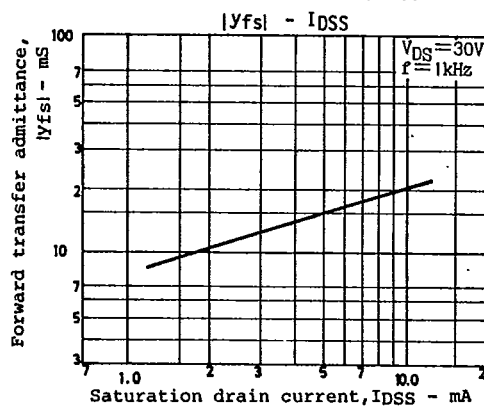
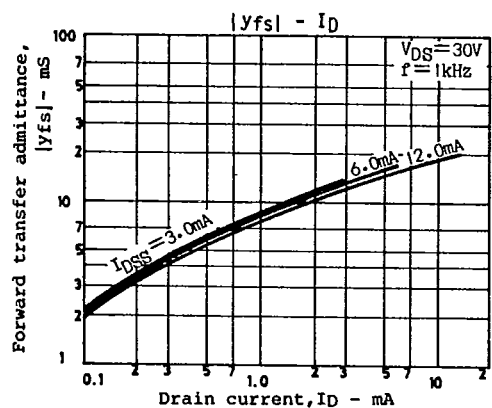
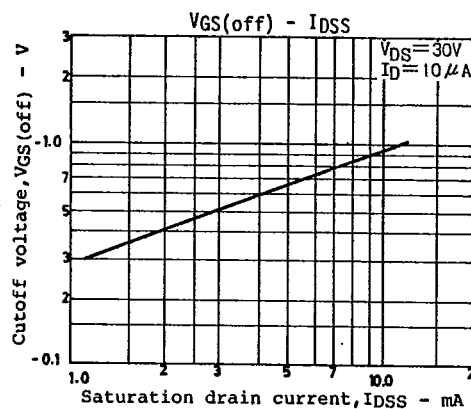
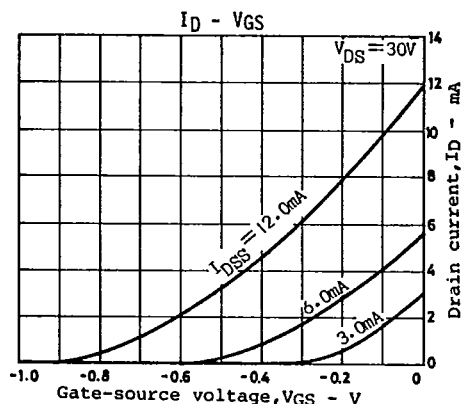
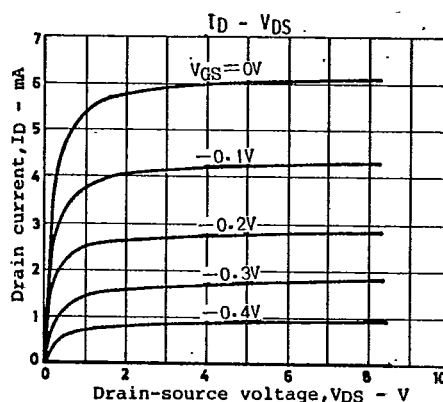
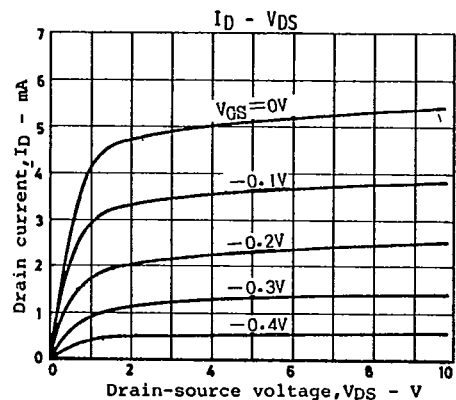


Case Outline 2028A
(unit: mm)



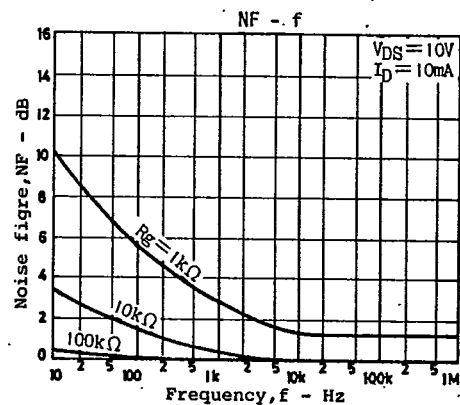
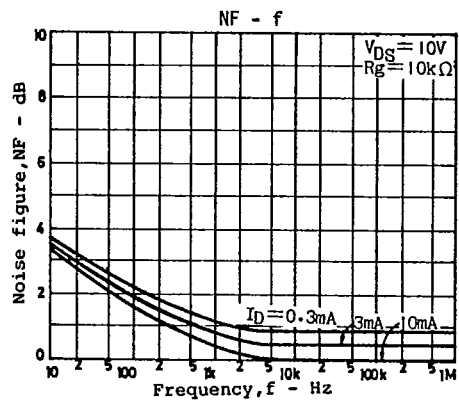
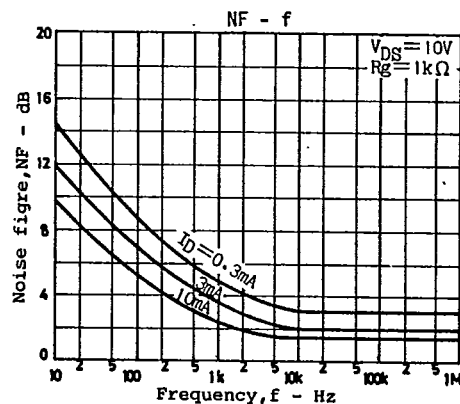
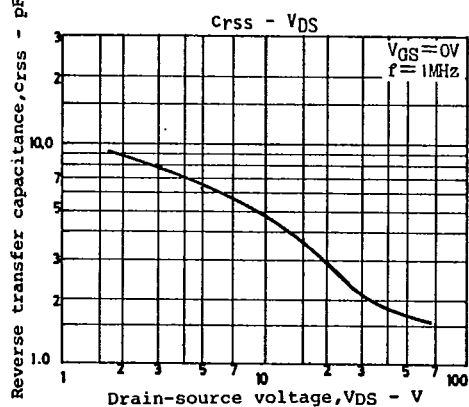
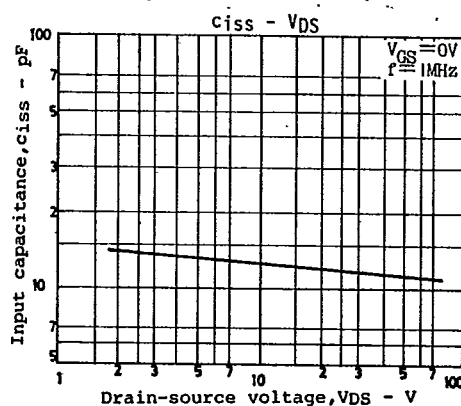
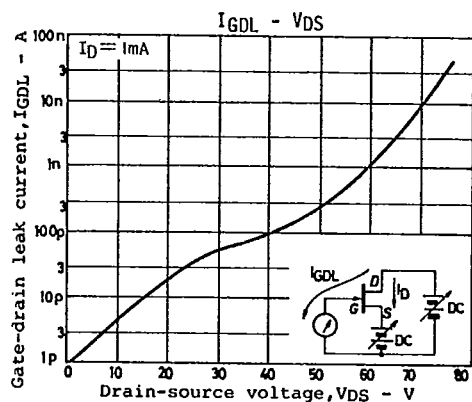
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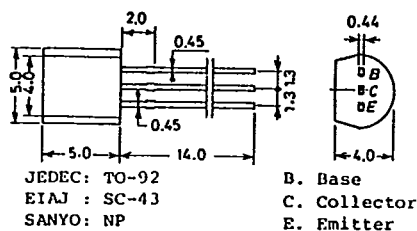


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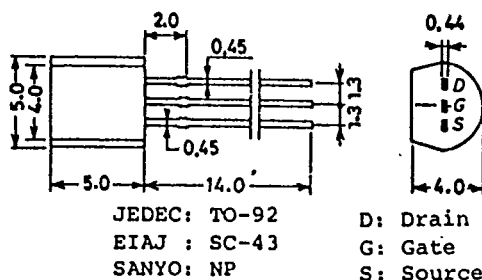
CASE OUTLINES OF LEAD FORMED SMALL SIGNAL TRANSISTORS

- 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.

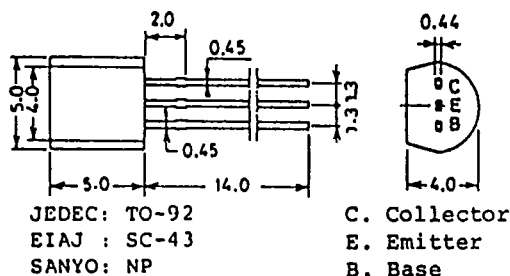
Case Outline—[2003A] unit: mm



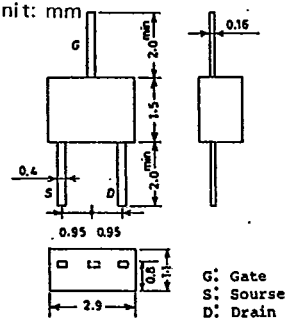
Case Outline—[2019A] unit: mm



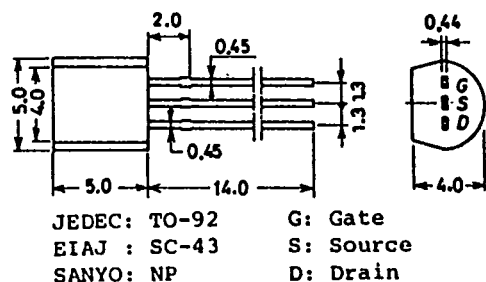
Case Outline—[2004A] unit: mm



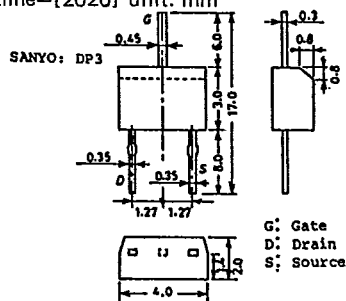
Case Outline—[2025] unit: mm



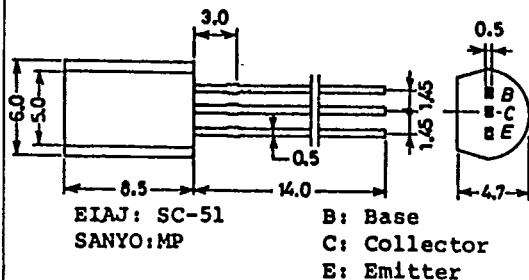
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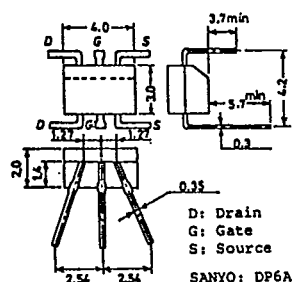
Case Outline—[2026] unit: mm



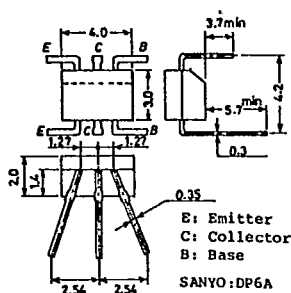
Case Outline—[2006A] unit: mm



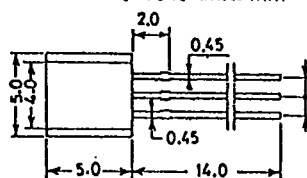
Case Outline—[2027A] unit: mm



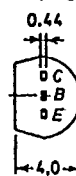
Case Outline—[2029A] unit: mm



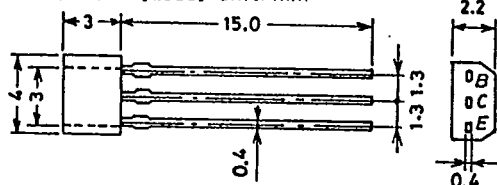
Case Outline—[2061] unit: mm



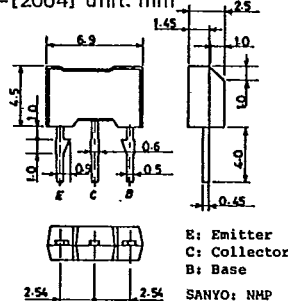
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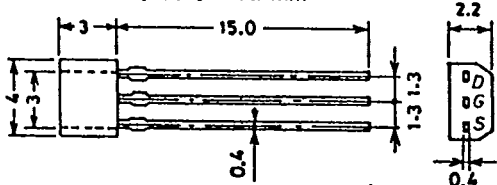
Case Outline—[2033] unit: mm



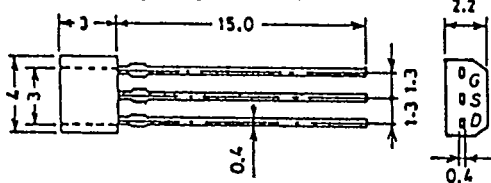
Case Outline—[2064] unit: mm



Case Outline—[2034] unit: mm



Case Outline—[2040] unit: mm



Case Outline—[2051] unit: mm

