

2SC3065

2029A

NPN Epitaxial Planar
Silicon Composite Transistor

T-29-27

Differential Amp Applications

©974B

Applications

- Differential amp, current mirror.

Features

- Excellent in thermal equilibrium and suited for use in first-stage differential amp.
- Low noise.
- Matched pair capability.

Absolute Maximum Ratings at Ta=25°C

			unit
Collector to Base Voltage	V_{CB0}	55	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Current	V_{EBO}	5	V
Collector Current	I_C	150	mA
Peak Collector Current	i_{cp}	300	mA
Collector Dissipation	P_C	200	mW
Total Dissipation	P_T	400	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

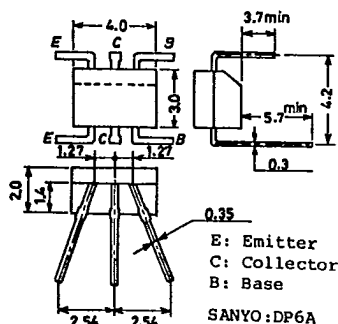
1 unit

Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=35V, I_E=0$			0.1	uA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=4V, I_C=0$			0.1	uA
DC Current Gain	h_{FE}	$V_{CE}=6V, I_C=1mA$	100*		960*	
DC Current Gain Ratio	$h_{FE(small/large)}$	$V_{CE}=6V, I_C=1mA$	0.85	0.98		
Base to Emitter Voltage Drop	$V_{BE(large-small)}$	$V_{CE}=6V, I_C=1mA$		1.0	10	mV
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=50mA, I_B=5mA$			0.5	V
Gain-Bandwidth Product	f_T	$V_{CE}=6V, I_C=1mA$		100		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$		2.5		pF
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10uA, I_E=0$	55			V

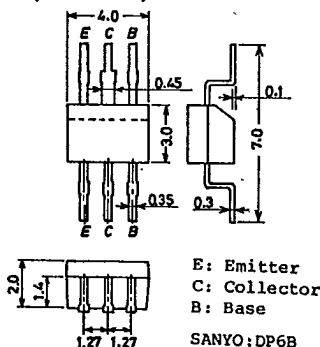
Continued on next page.

Case Outline 2029A (unit:mm)



The 2SC3065 is provided with a surface mounted package.

Case Outline 2030A (unit:mm)

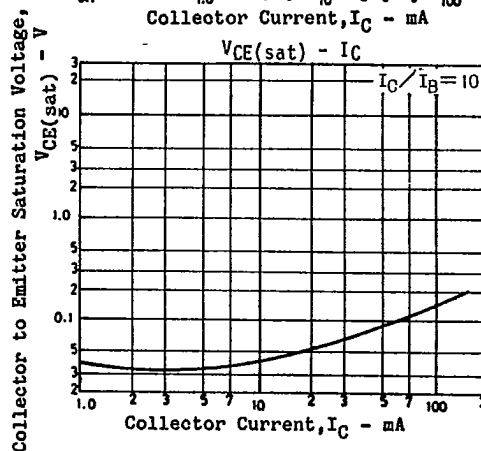
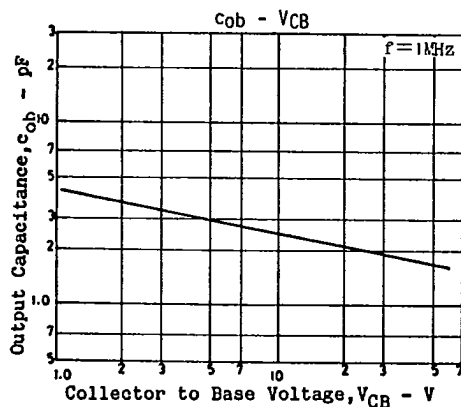
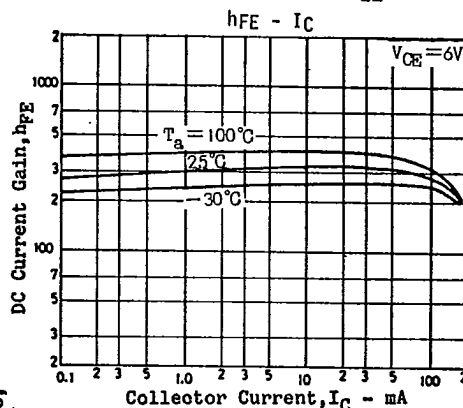
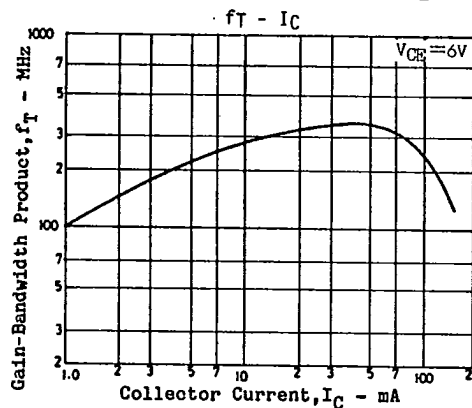
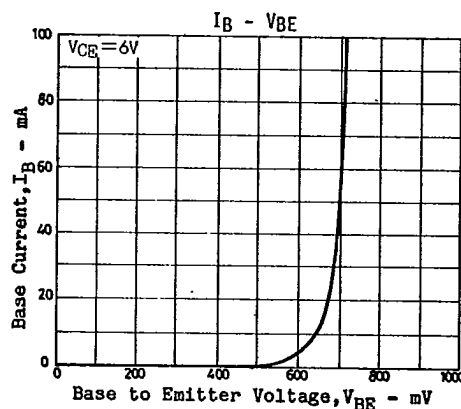
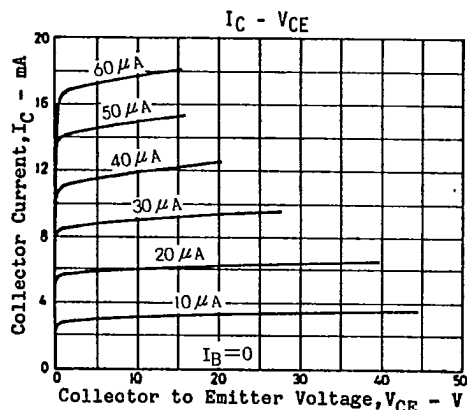
*The 2SC3065 is classified by $h_{FE(small)}$ as follows:

100	E	200
160	F	320
280	G	560
480	H	960

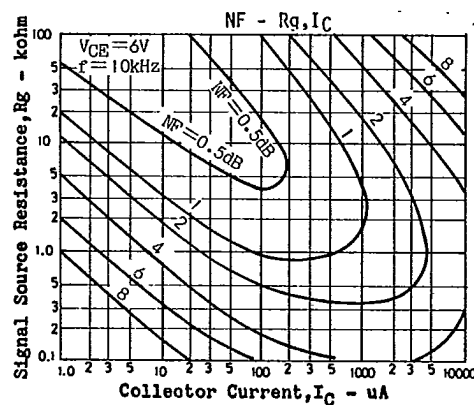
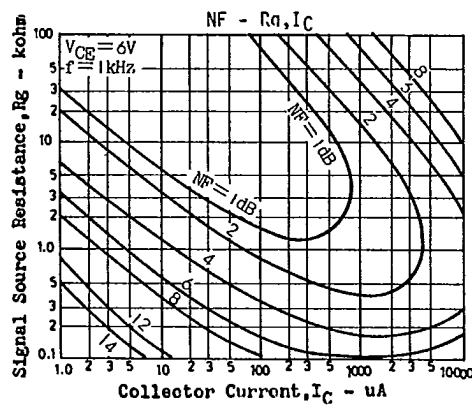
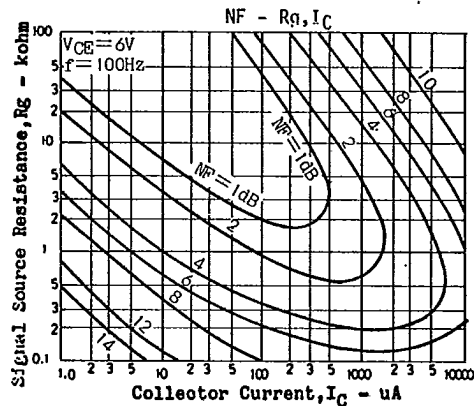
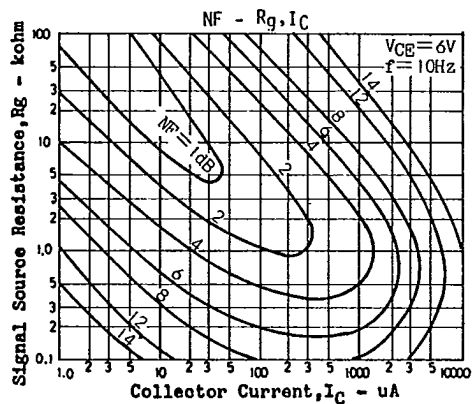
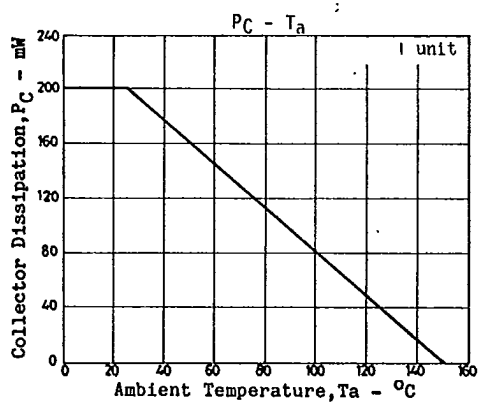
4167KI/2095KI, TS No.974-1/3

Continued from preceding page.

			min	typ	max	unit
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	55			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	50			V
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5			V
Noise Level	$V_{NO(ave)}$	$V_{CC}=30V, I_C=1mA, R_g=56k\Omega, V_G=77dB/1kHz$			35	mV
Noise Peak Level	$V_{NO(peak)}$	$V_{CC}=30V, I_C=1mA, R_g=56k\Omega, V_G=77dB/1kHz$			200	mV



T-29-27

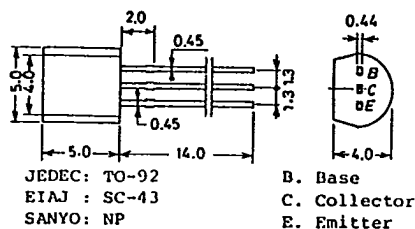


T-91-20

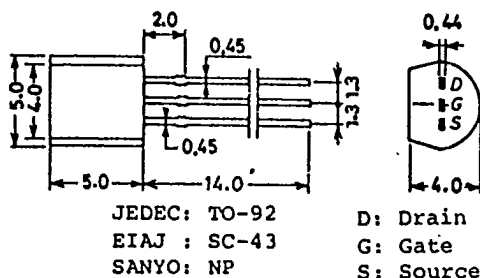
CASE OUTLINES OF LEAD FORMED SMALL SIGNAL TRANSISTORS

- 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.

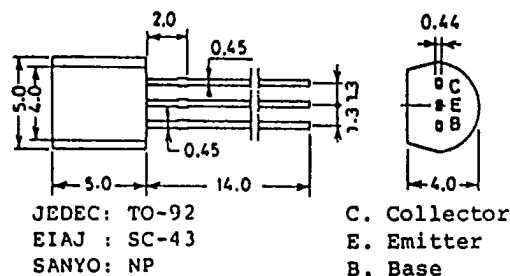
Case Outline—[2003A] unit: mm



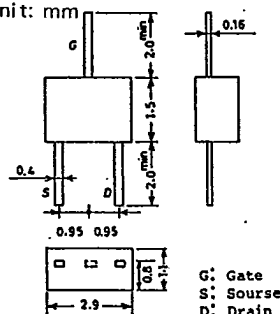
Case Outline—[2019A] unit: mm



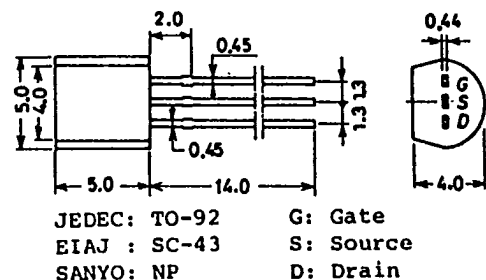
Case Outline—[2004A] unit: mm



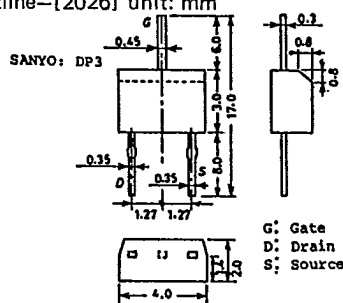
Case Outline—[2025] unit: mm



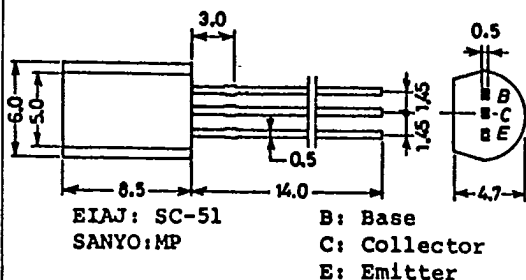
Case Outline—[2005A] unit: mm



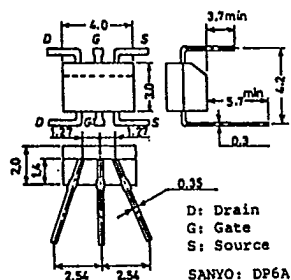
Case Outline—[2026] unit: mm



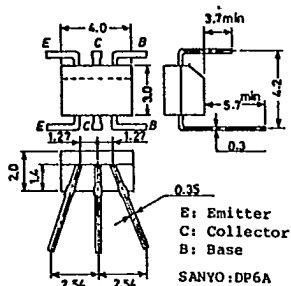
Case Outline—[2006A] unit: mm



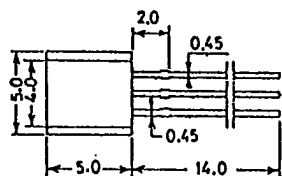
Case Outline—[2027A] unit: mm



Case Outline—[2029A] unit: mm



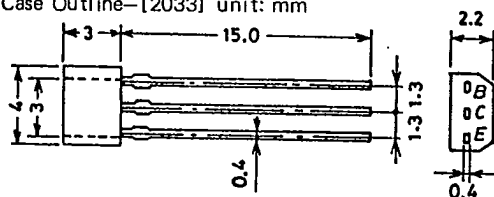
Case Outline—[2061] unit: mm



T-91-20

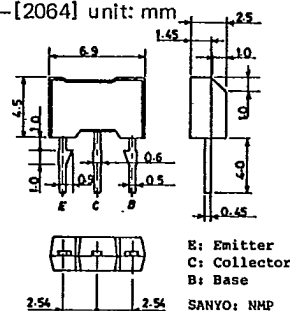
C: Collector
B: Base
E: Emitter
SANYO: NP

Case Outline—[2033] unit: mm



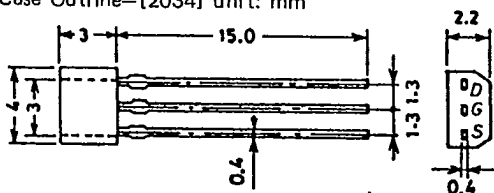
B: Base
C: Collector
E: Emitter
SANYO: SPA

Case Outline—[2064] unit: mm



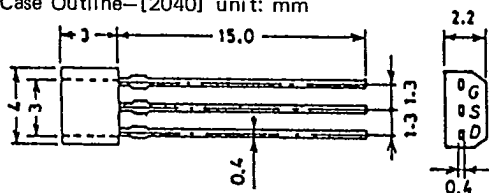
E: Emitter
C: Collector
B: Base
SANYO: NMP

Case Outline—[2034] unit: mm



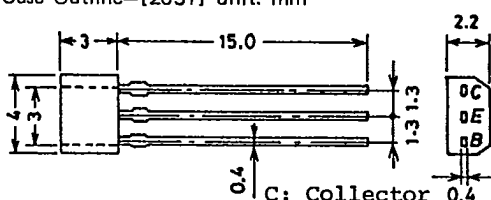
D: Drain
G: Gate
S: Source
SANYO: SPA

Case Outline—[2040] unit: mm



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

Case Outline—[2051] unit: mm



C: Collector
E: Emitter
B: Base
SANYO: SPA