T-29-27

2SC3065

2029A

NPN Epitaxial Planar
Silicon Composite Transistor

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_{CBO}		55	V
Cellector 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	1 unit	200	mW
Total Dissipation	P_T		400	mW
Junction Temperature	T_j		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta=25°C

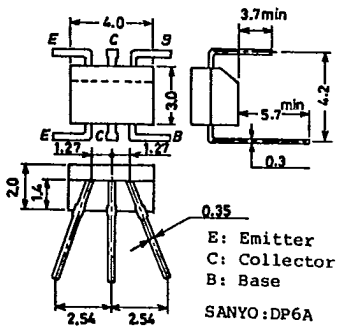
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	V_{CB}=35V,I_E=0			0.1	uA
Emitter Cutoff Current	I_{EBO}	V_{EB}=4V,I_C=0			0.1	uA
DC Current Gain	h_{FE}	V_{CE}=6V,I_C=1mA	100*		960*	
DC Current Gain Ratio	$h_{FE(small/large)}$	V_{CE}=6V,I_C=1mA	0.85	0.98		
Base to Emitter Voltage Drop	$V_{BE(large-small)}$	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.

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

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

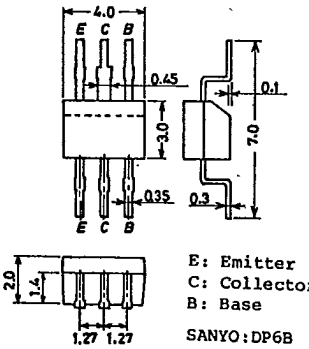
Case Outline 2029A
(unit:mm)



E: Emitter
C: Collector
B: Base
SANYO:DP6A

The 2SC3065 is provided with a surface mounted package.

Case Outline 2030A
(unit:mm)



E: Emitter
C: Collector
B: Base
SANYO:DP6B

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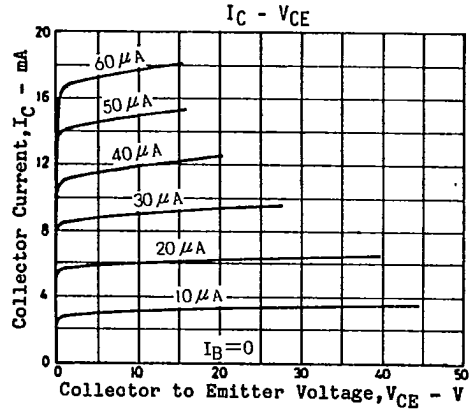
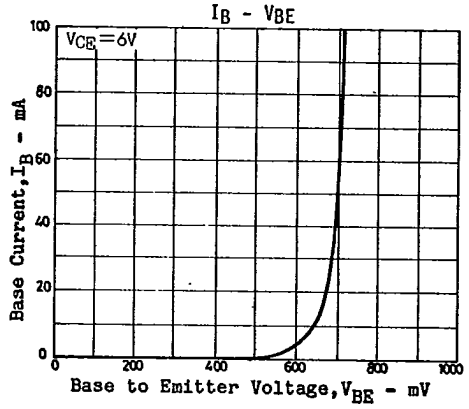
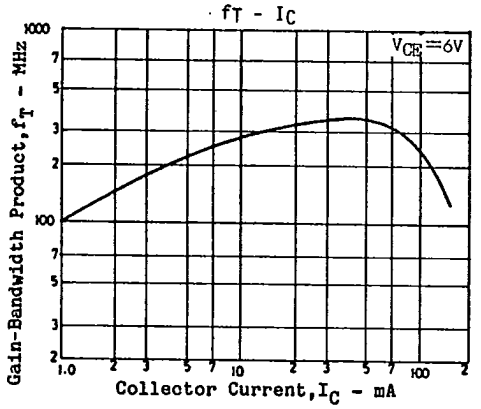
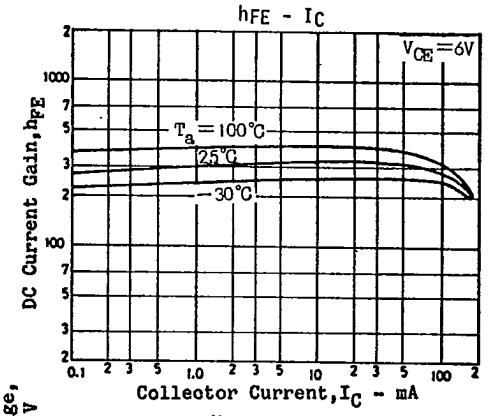
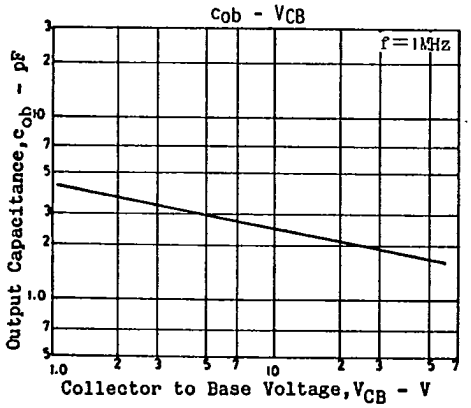
			min	typ	max	unit
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=10uA,I_E=0	55			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA,R_{BE}=∞	50			V
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=10uA,I_C=0	5			V
Noise Level	$V_{NO(ave)}$	V_{CC}=30V,I_C=1mA, Rg=56kohm,VG=77dB/1kHz			35	mV
Noise Peak Level	$V_{NO(peak)}$	V_{CC}=30V,I_C=1mA, Rg=56kohm,VG=77dB/1kHz			200	mV

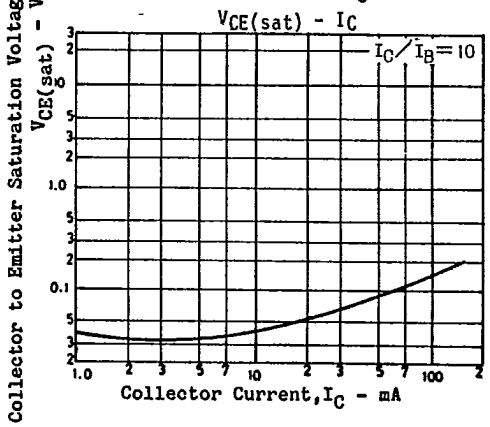


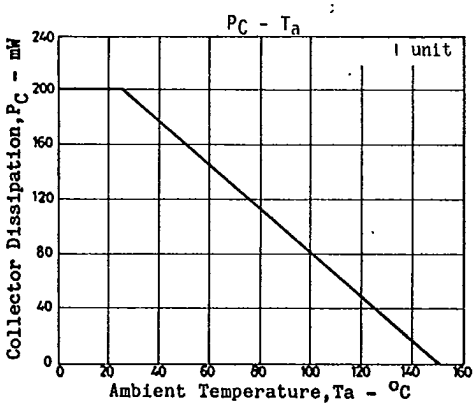


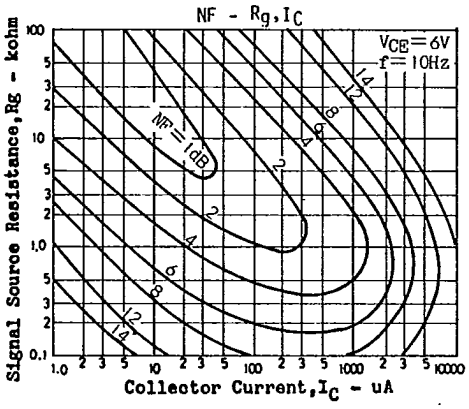


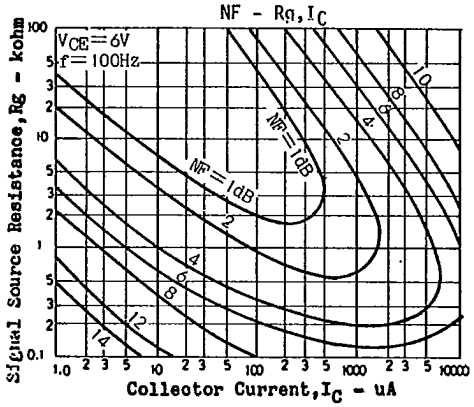


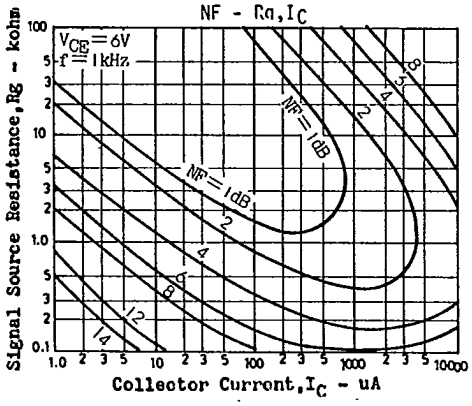


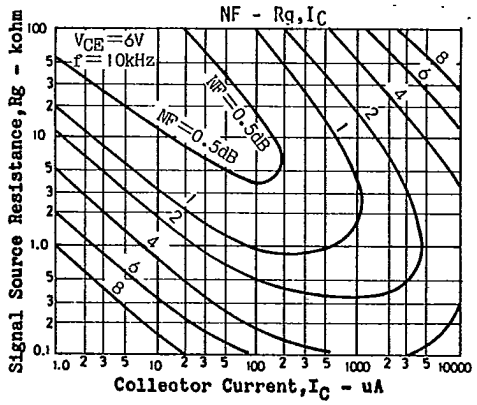










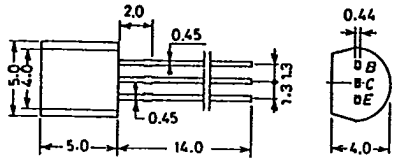


T-91-20

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.

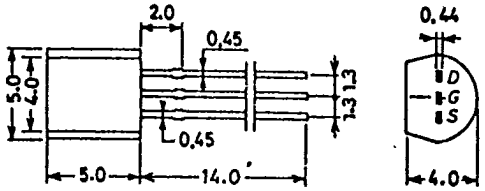
Case Outline–[2003A] unit: mm



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

B. Base
C. Collector
E. Emitter

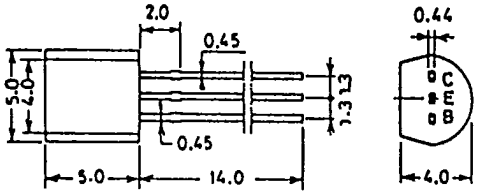
Case Outline–[2019A] unit: mm



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

D: Drain
G: Gate
S: Source

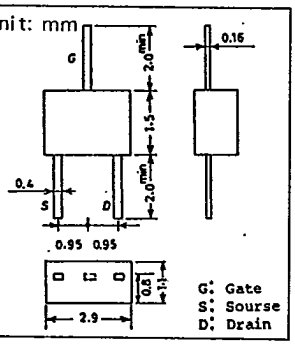
Case Outline–[2004A] unit: mm



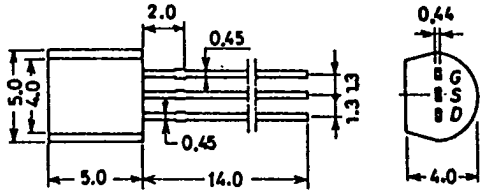
JEDEC: TO-92
EIAJ : SC-43
SANYO: NP

C. Collector
E. Emitter
B. Base

Case Outline–[2025] unit: mm



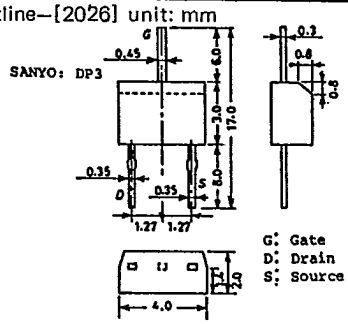
Case Outline–[2005A] unit: mm



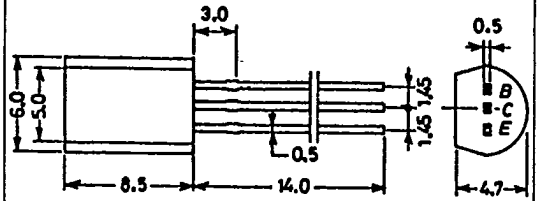
JEDEC: TO-92
EIAJ : SC-43
SANYO: NP

G: Gate
S: Source
D: Drain

Case Outline–[2026] unit: mm



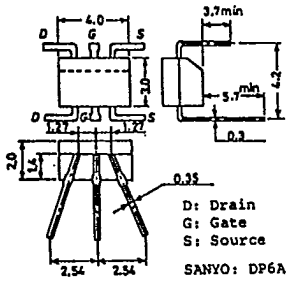
Case Outline–[2006A] unit: mm



EIAJ: SC-51
SANYO: MP

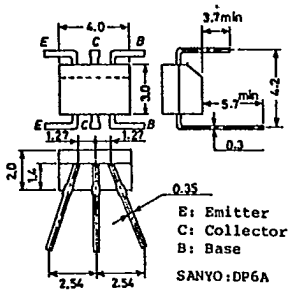
B: Base
C: Collector
E: Emitter

Case Outline–[2027A] unit: mm



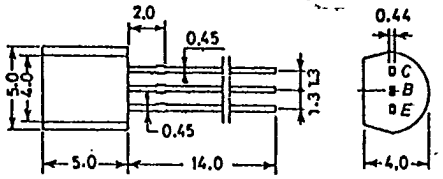
T-91-20

Case Outline—[2029A] unit: mm



E: Emitter
C: Collector
B: Base
SANYO:DP6A

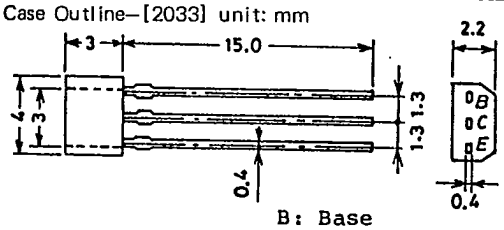
Case Outline—[2061] unit: mm



JEDEC: TO-92
EIAJ : SC-43

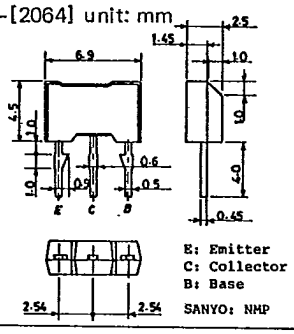
C: Collector
B: Base
E: Emitter
SANYO: NP

Case Outline—[2033] unit: mm



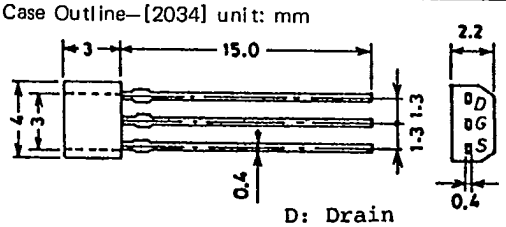
B: Base
C: Collector
E: Emitter
SANYO: SPA

Case Outline—[2064] unit: mm



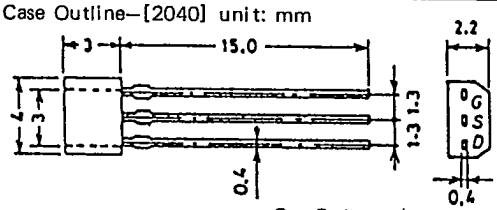
E: Emitter
C: Collector
B: Base
SANYO: NMP

Case Outline—[2034] unit: mm



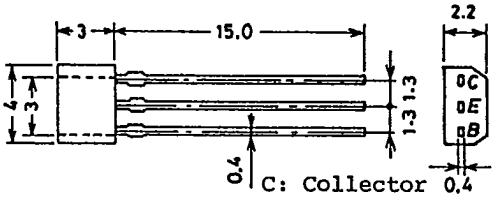
D: Drain
G: Gate
S: Source
SANYO: SPA

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