

2SC3067

2029A

NPN Epitaxial Planar
Silicon Composite Transistor

T-29-27

Differential Amp Applications

©9788

Features

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

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

			unit
Collector to Base Voltage	V_{CB0}	130	V
Collector to Emitter Voltage	V_{CE0}	120	V
Emitter to Base Current	V_{EB0}	5	V
Collector Current	I_C	50	mA
Peak Collector Current	i_{cp}	100	mA
Collector Dissipation	P_C	200	mW
Total Dissipation	P_T	400	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

1 unit

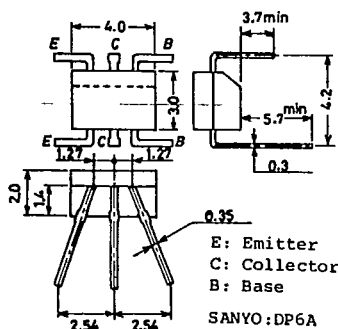
**Electrical Characteristics at $T_a=25^\circ\text{C}$**

			min	typ	max	unit
Collector Cutoff Current	I_{CB0}	$V_{CB}=80\text{V}, I_E=0$			0.1	μA
Emitter Cutoff Current	I_{EB0}	$V_{EB}=4\text{V}, I_C=0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=6\text{V}, I_C=1\text{mA}$	160*		960*	
DC Current Gain Ratio	$h_{FE(\text{small}/\text{large})}$	$V_{CE}=6\text{V}, I_C=1\text{mA}$	0.85	0.98		
Base to Emitter Voltage Drop	$V_{BE(\text{large-small})}$	$V_{CE}=6\text{V}, I_C=1\text{mA}$		1.0	10	mV
Collector to Emitter Saturation Voltage	$V_{CE(\text{sat})}$	$I_C=10\text{mA}, I_B=1\text{mA}$			0.5	V
Gain-Bandwidth Product	f_T	$V_{CE}=6\text{V}, I_C=1\text{mA}$		130		MHz
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, f=1\text{MHz}$		1.6		pF

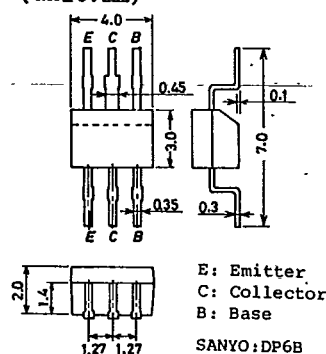
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*:The 2SC3067 is classified by $h_{FE(\text{small})}$ as follows:

160	F	320	280	G	560	480	H	960
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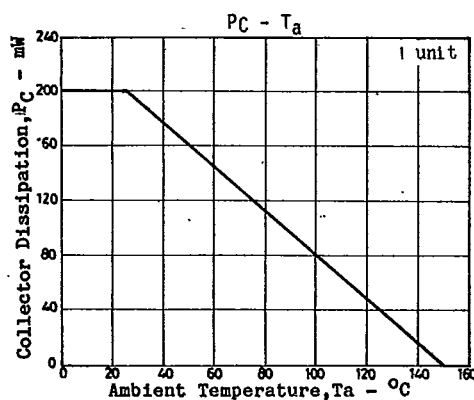
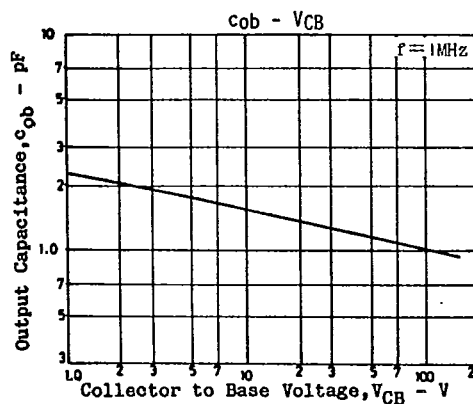
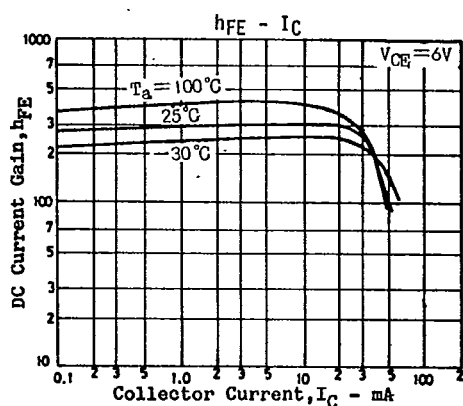
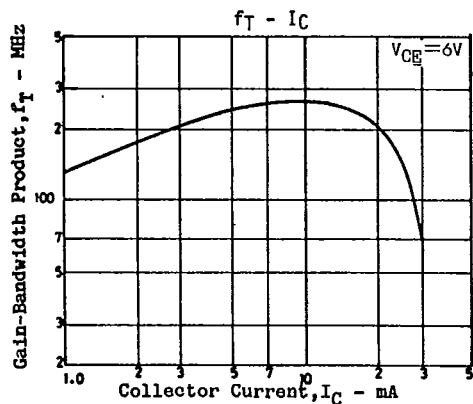
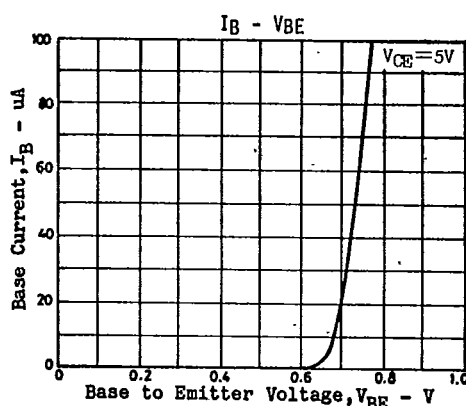
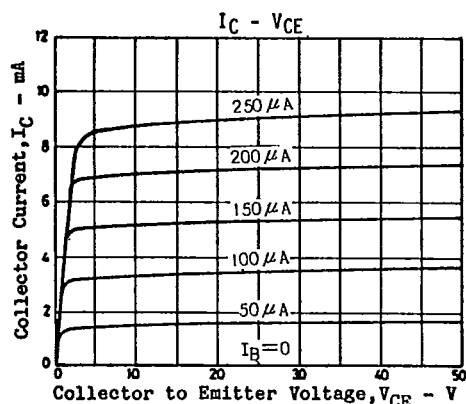
Case Outline 2029A
(unit:mm)

The 2SC3067 is provided with a surface mounted package.

Case Outline 2030A
(unit:mm)

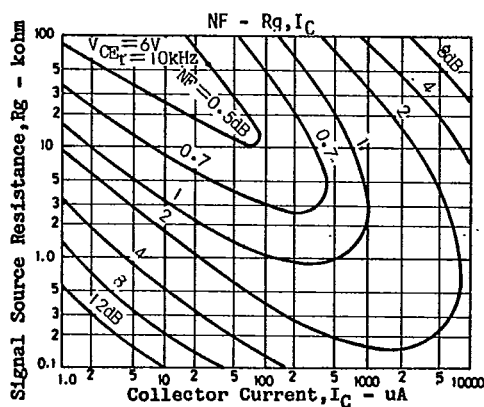
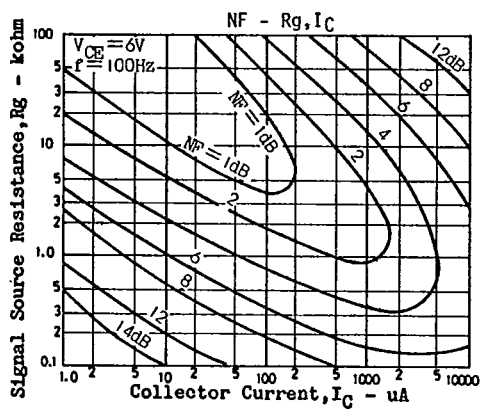
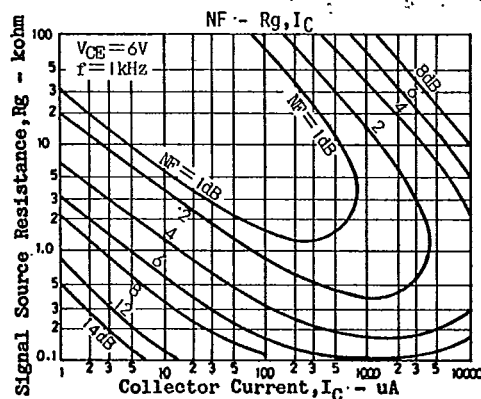
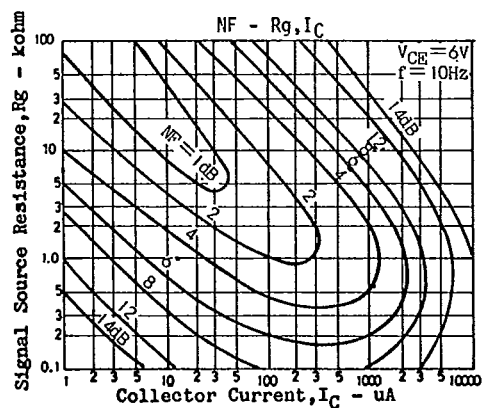
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			min	typ	max	unit
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	130			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	120			V
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	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



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T-29-27

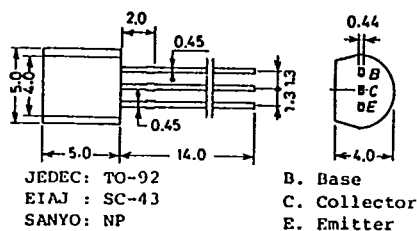


T-91-20

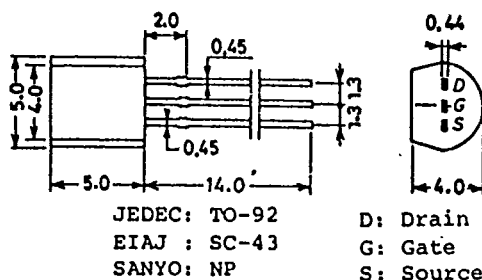
CASE OUTLINES OF LEAD FORMED SMALL SIGNAL TRANSISTORS

- 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.

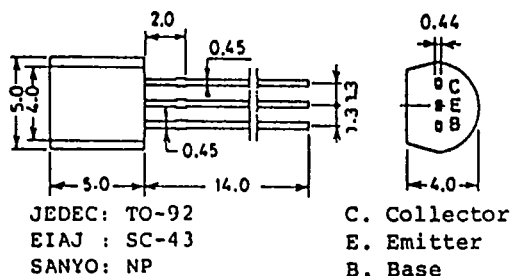
Case Outline—[2003A] unit: mm



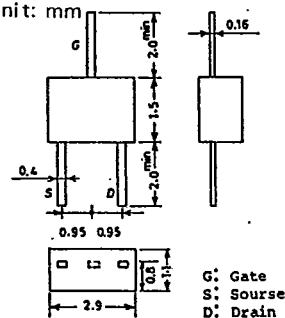
Case Outline—[2019A] unit: mm



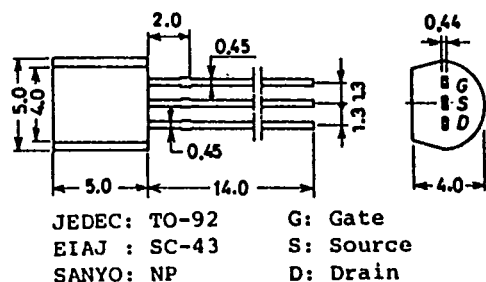
Case Outline—[2004A] unit: mm



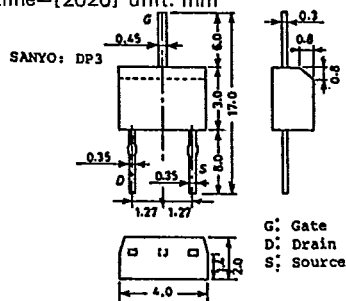
Case Outline—[2025] unit: mm



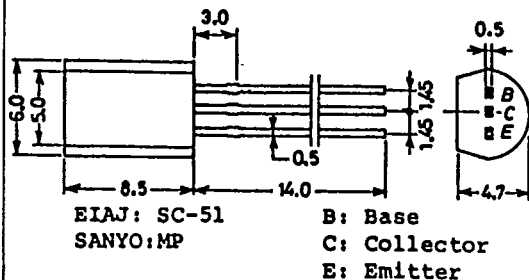
Case Outline—[2005A] unit: mm



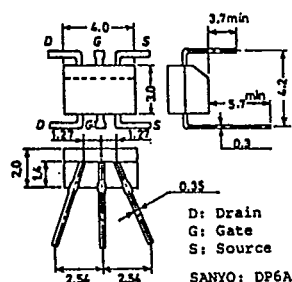
Case Outline—[2026] unit: mm



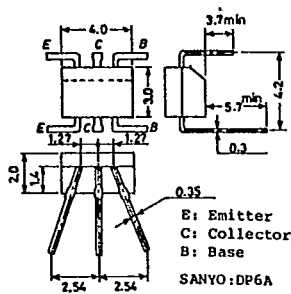
Case Outline—[2006A] unit: mm



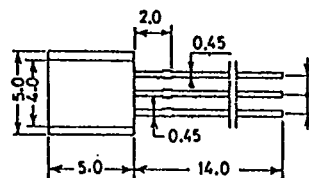
Case Outline—[2027A] unit: mm



Case Outline—[2029A] unit: mm



Case Outline—[2061] unit: mm

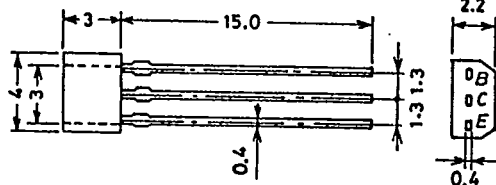


JEDEC: TO-92
EIAJ: SC-43

T-91-20

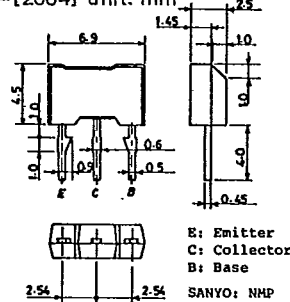
C: Collector
B: Base
E: Emitter
SANYO: NP

Case Outline—[2033] unit: mm

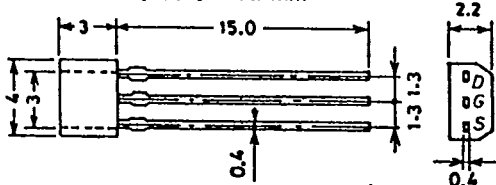


B: Base
C: Collector
E: Emitter
SANYO: SPA

Case Outline—[2064] unit: mm

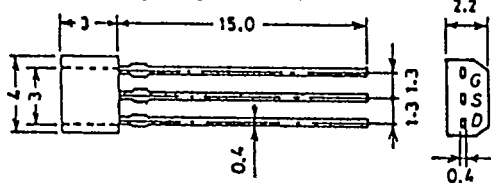


Case Outline—[2034] unit: mm



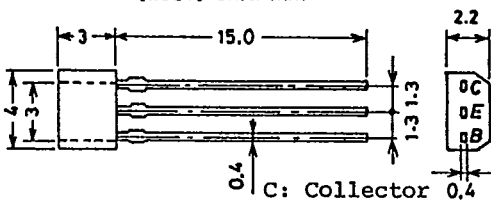
D: Drain
G: Gate
S: Source
SANYO: SPA

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