

2029A

NPN Epitaxial Planar Silicon Composite Transistor

T-29-27

Differential Amp Applications

©958B

Applications

- . Differential amp, current mirror, temperature compensator.

Features

- . Excellent in thermal equilibrium and suited for use in differential amp applications.
- . Matched pair capability.

Absolute Maximum Ratings at Ta=25°C

| Parameter | Symbol | Value | 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 |

Electrical Characteristics at Ta=25°C

| Parameter | Symbol | Test Conditions | 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 |

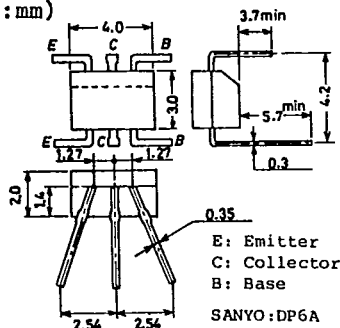
Continued on next page.

*The 2SC3064 is classified by h_{FE(small)} as follows:

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

Case Outline 2029A

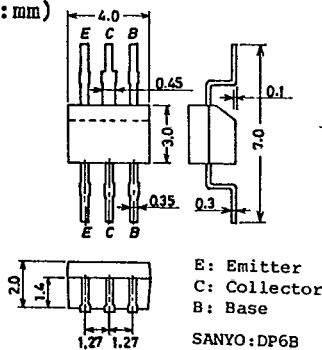
(unit:mm)



The 2SC3064 is provided with a surface mounted package.

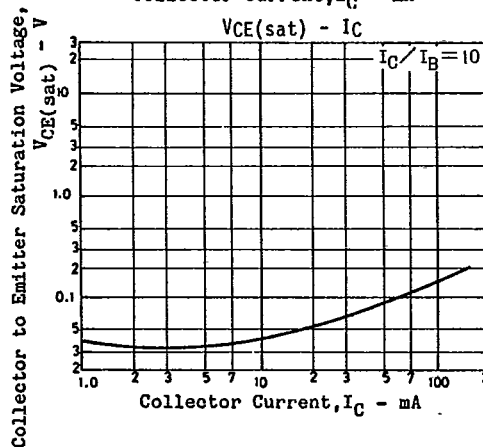
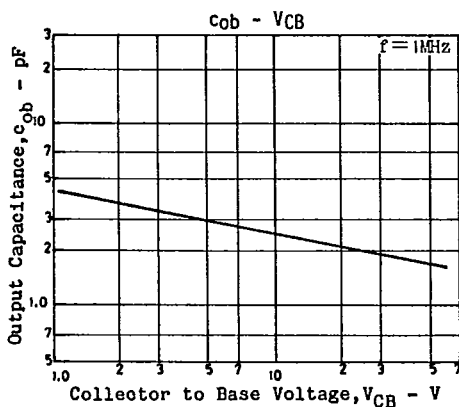
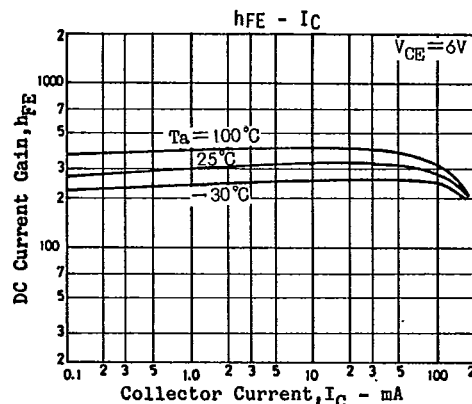
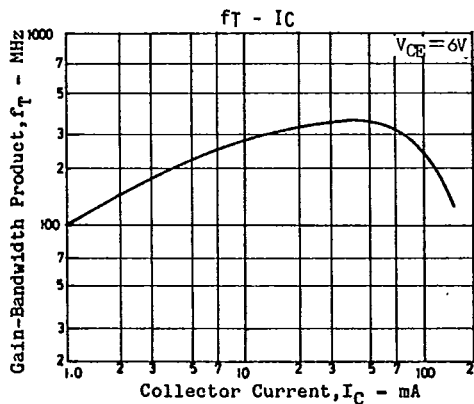
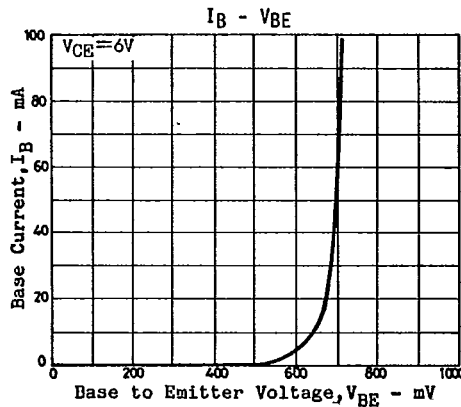
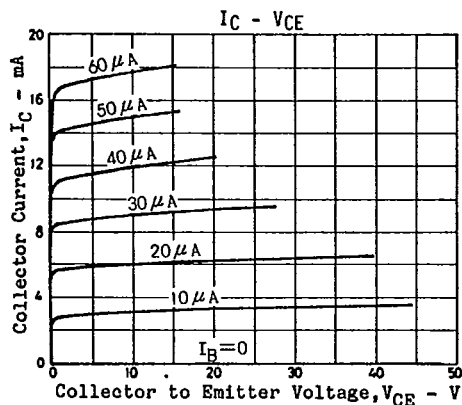
Case Outline 2030A

(unit:mm)



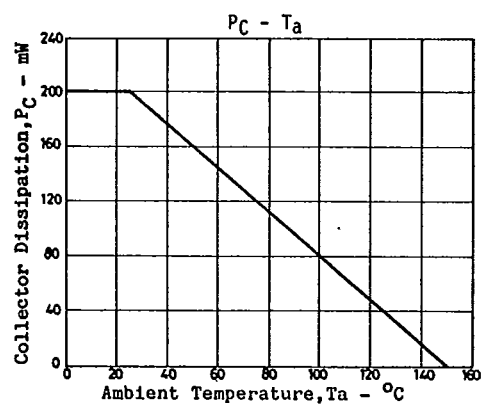
Continued from preceding page.

| | | | 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 |



25C3064

T-29-27

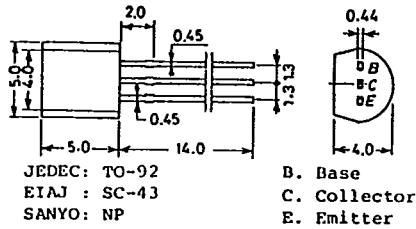


T-91-20

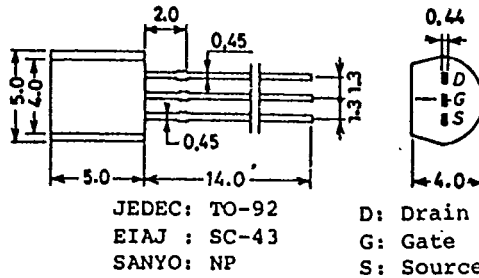
CASE OUTLINES OF LEAD FORMED SMALL SIGNAL TRANSISTORS

- 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.

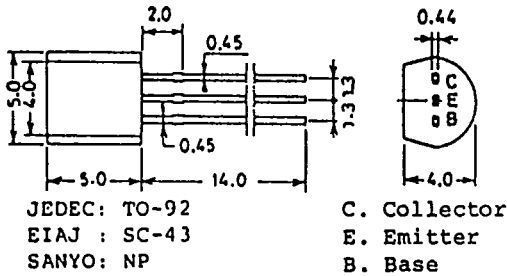
Case Outline-[2003A] unit: mm



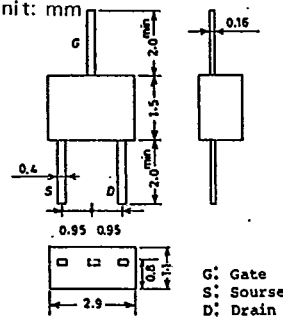
Case Outline-[2019A] unit: mm



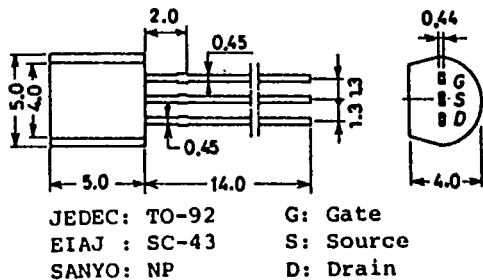
Case Outline-[2004A] unit: mm



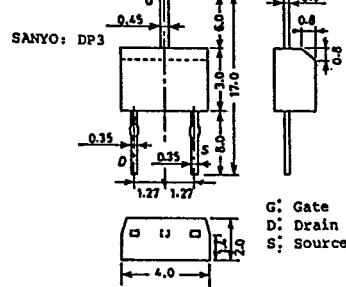
Case Outline-[2025] unit: mm



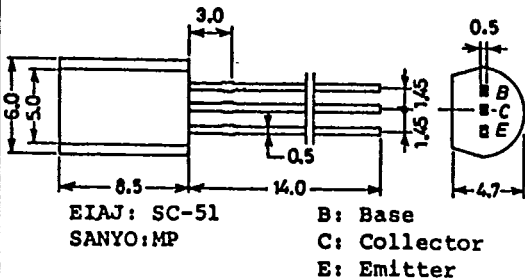
Case Outline-[2005A] unit: mm



Case Outline-[2026] unit: mm



Case Outline-[2006A] unit: mm



Case Outline-[2027A] unit: mm

