

SANYO

No.1049D

2SA1253/2SC3135

PNP/NPN Epitaxial Planar Silicon Transistors

High- h_{FE} , AF Amp Applications**Features**

- High V_{EBO}
- Wide ASO and high durability against breakdown

(): 2SA1253

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

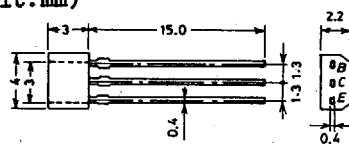
			unit
Collector to base voltage	V_{CBO}	(-) 60	V
Collector to emitter voltage	V_{CEO}	(-) 50	V
Emitter to base voltage	V_{EBO}	(-) 15	V
Collector current	I_C	(-) 200	mA
Collector Current(Pulse)	I_{CP}	(-) 400	mA
Collector dissipation	P_C	250	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to $+150$	$^\circ\text{C}$

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

			min	typ	max	unit
Collector cutoff current	I_{CBO}	$V_{CB} = (-)40\text{V}, I_E = 0$			(-) 0.1	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = (-)10\text{V}, I_C = 0$			(-) 0.1	μA
DC current gain	h_{FE}	$V_{CE} = (-)6\text{V}, I_C = (-)1\text{mA}$	100^*		560^*	
Gain-bandwidth product	f_T	$V_{CE} = (-)6\text{V}, I_C = (-)1\text{mA}$		100		MHz
Common base output capacitance	c_{ob}	$V_{CB} = (-)6\text{V}, f = 1\text{MHz}$		(3.8)		pF
				2.5		
Collector to emitter saturation voltage $V_{CE(sat)}$	$I_C = (-)50\text{mA}, I_B = (-)5\text{mA}$			(-0.2)	(-0.5)	V
				0.15		
Collector to base breakdown voltage $V_{(BR)CBO}$	$I_C = (-)10\mu\text{A}, I_E = 0$		(-60)			V
Collector to emitter breakdown voltage $V_{(BR)CEO}$	$I_C = (-)1\text{mA}, R_{BE} = \infty$		(-50)			V
Emitter to base breakdown voltage $V_{(BR)EBO}$	$I_E = (-)10\mu\text{A}, I_C = 0$		(-15)			V

* The 2SA1253/2SC3135 are classified by 1 mA h_{FE} as follows:

100 R 200	140 S 280	200 T 400	280 U 560
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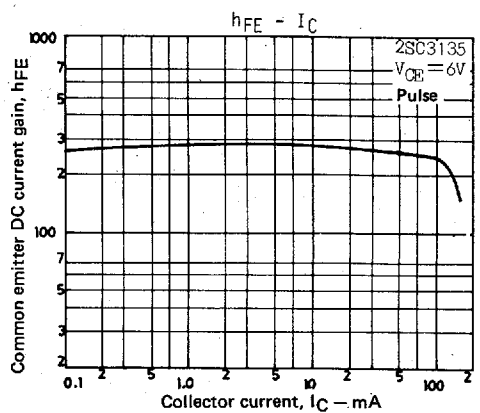
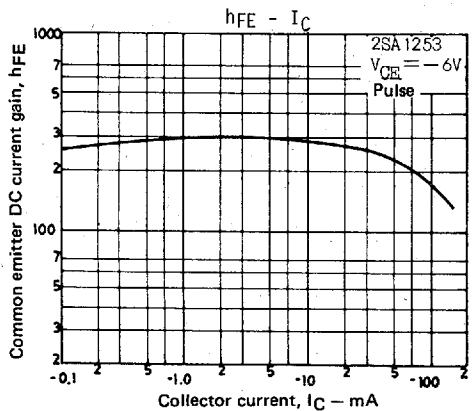
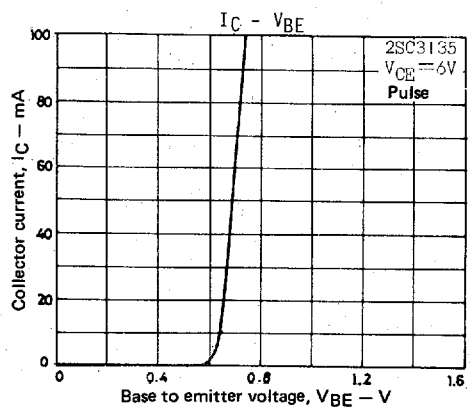
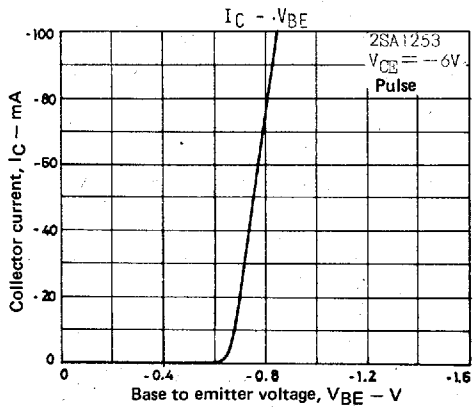
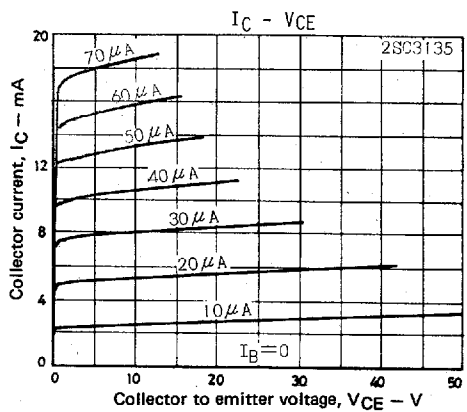
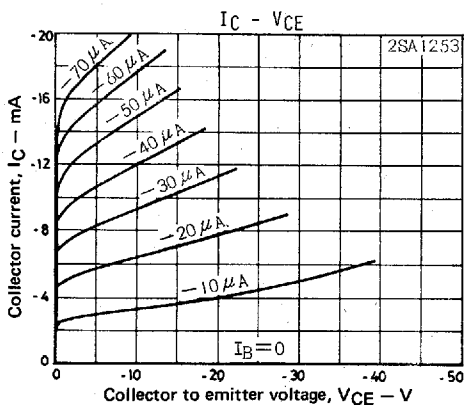
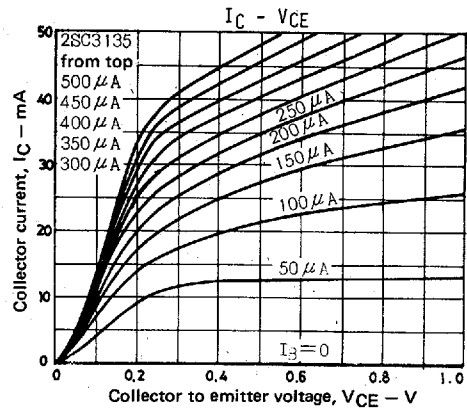
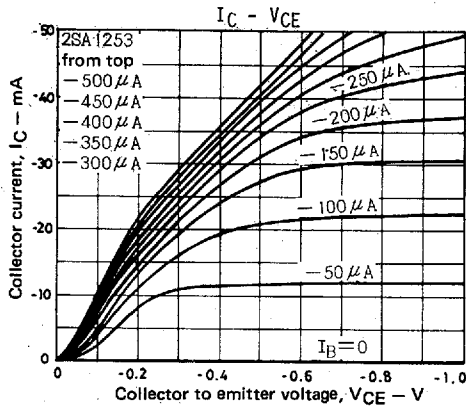
Case Outline 2033
(unit:mm)

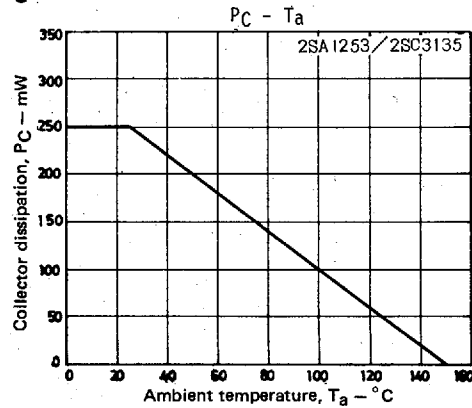
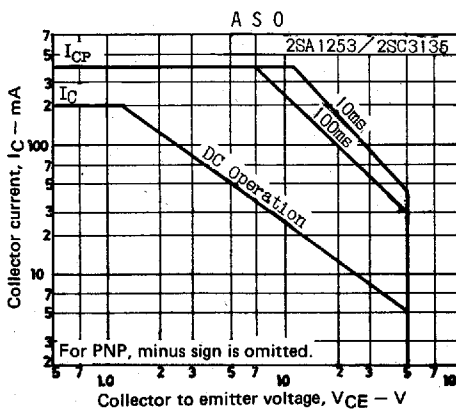
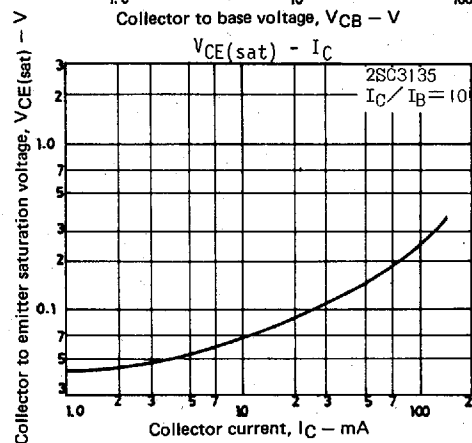
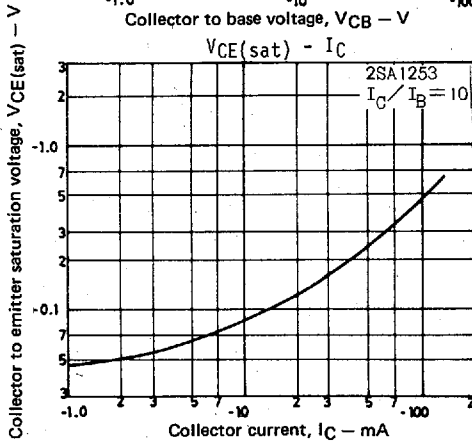
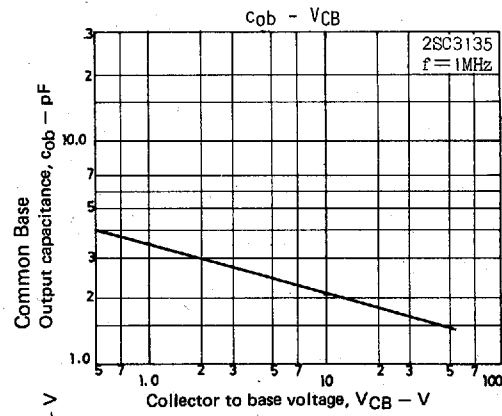
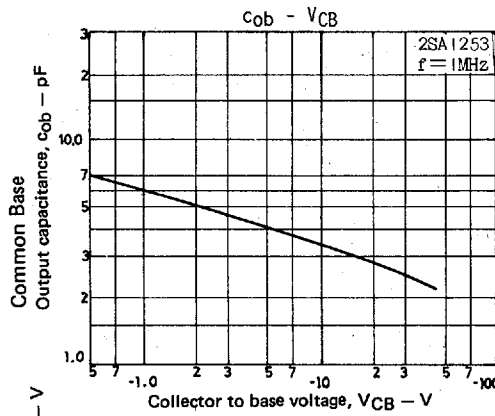
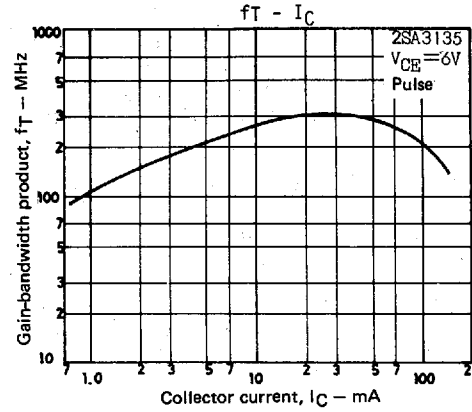
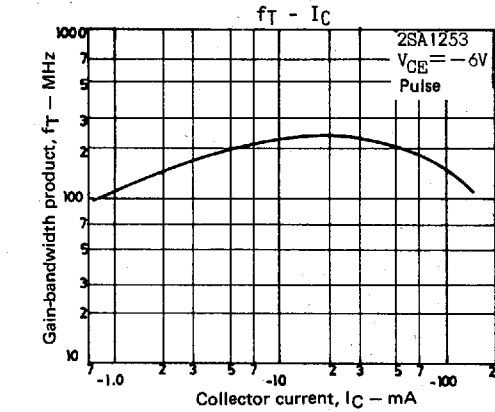
B: Base
C: Collector
E: Emitter
SANYO: SPA

Specifications and information herein are subject to change without notice.

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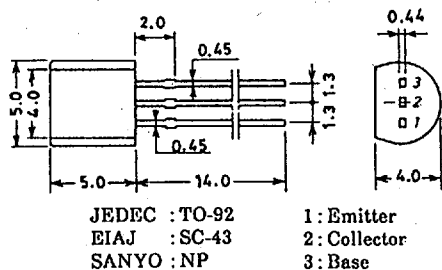




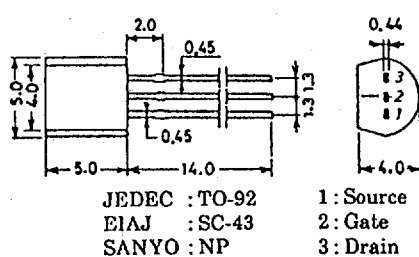
CASE OUTLINES OF LEAD FORMED SMALL SIGNAL TRANSISTORS

- 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.

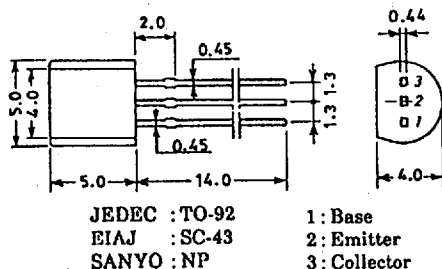
Case Outline 2003A/2003B (unit : mm)



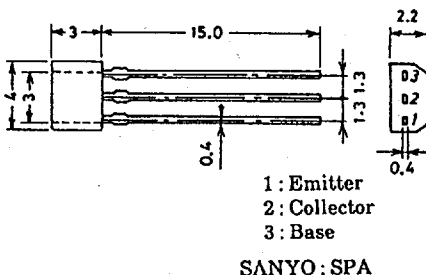
Case Outline 2019A/2019B (unit : mm)



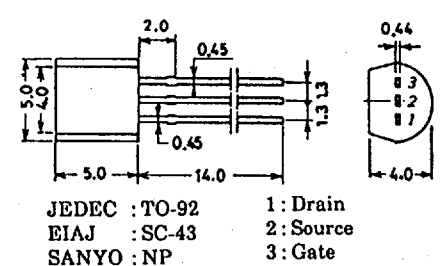
Case Outline 2004A (unit : mm)



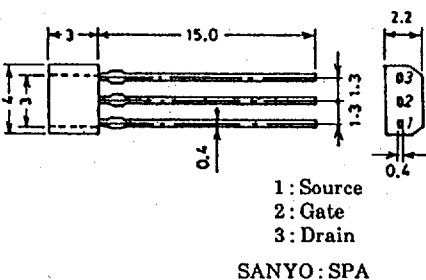
Case Outline 2033 (unit : mm)



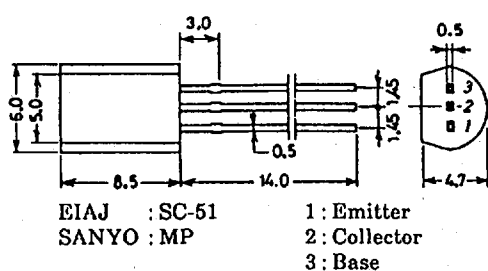
Case Outline 2005A (unit : mm)



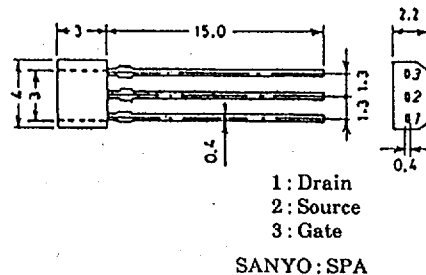
Case Outline 2034/2034A (unit : mm)



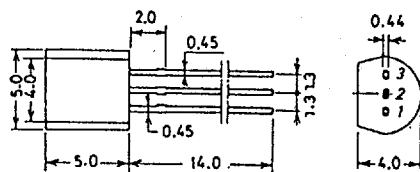
Case Outline 2006A (unit : mm)



Case Outline 2040 (unit : mm)



Case Outline 2061 (unit : mm)



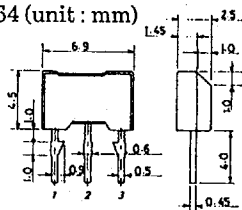
JEDEC : TO-92

EIAJ : SC-43

SANYO : NP

- 1: Emitter
- 2: Base
- 3: Collector

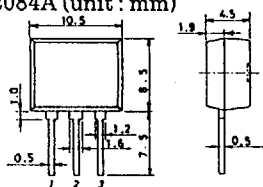
Case Outline 2064 (unit : mm)



- 1: Emitter
- 2: Collector
- 3: Base

SANYO : NMP

Case Outline 2084A (unit : mm)



- 1: Emitter
- 2: Collector
- 3: Base

SANYO : FLP