



No.199J

2SB544/2SD400

PNP/NPN Epitaxial Planar Silicon Transistors

Low-Frequency Power Amp,
Electronic Governor Applications

() : 2SB544

Absolute Maximum Ratings at Ta = 25°C

			unit
Collector to Base Voltage	V _{CB0}	(-)25	V
Collector to Emitter Voltage	V _{CEO}	(-)25	V
Emitter to Base Voltage	V _{EBO}	(-)5	V
Collector Current	I _C	(-)1	A
Collector Current(Pulse)	I _{CP}	(-)2	A
Collector Dissipation	P _C	900	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

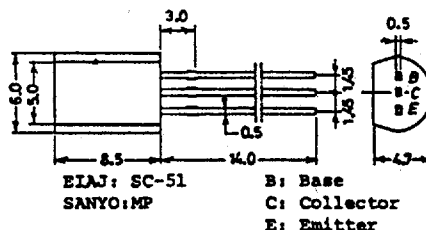
Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} = (-)20V, I _B = 0			(-)1.0	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} = (-)4V, I _C = 0			(-)1.0	μA
DC Current Gain	h _{FE} (1)	V _{CE} = (-)2V, I _C = (-)50mA	60*		560*	
	h _{FE} (2)	V _{CE} = (-)2V, I _C = (-)1A	30			
Gain-Bandwidth Product	f _T	V _{CE} = (-)10V, I _C = (-)50mA		180		MHz
Output Capacitance	c _{ob}	V _{CB} = (-)10V, f = 1MHz		(25)		pF
				15		
C-E Saturation Voltage	V _{CE(sat)}	I _C = (-)500mA, I _B = (-)50mA	(-)0.15	(-)0.7		V
			0.1	0.3		
B-E Saturation Voltage	V _{BE(sat)}	I _C = (-)500mA, I _B = (-)50mA	(-)0.85	(-)1.2		V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C = (-)10μA, I _E = 0	(-)25			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C = (-)1mA, R _{BE} = ∞	(-)25			V
E-B Breakdown Voltage	V _{(BR)EBO}	I _E = (-)10μA, I _C = 0	(-)5			V

* : The 2SB544/2SD400 are classified by 50mA h_{FE} as follows :

60 D 120	100 E 200	160 F 320	280 G 560
----------	-----------	-----------	-----------

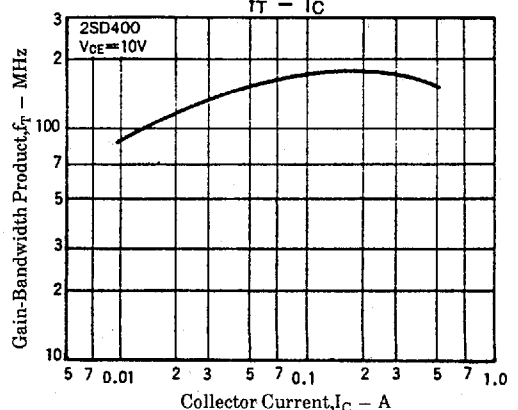
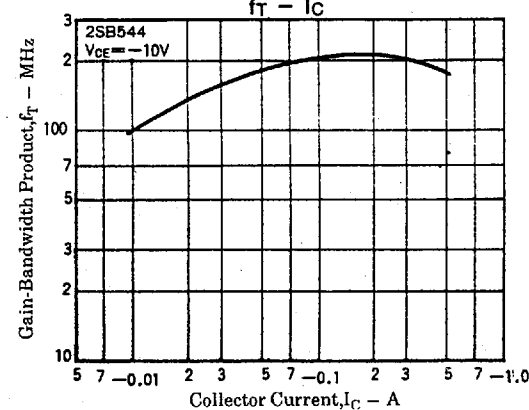
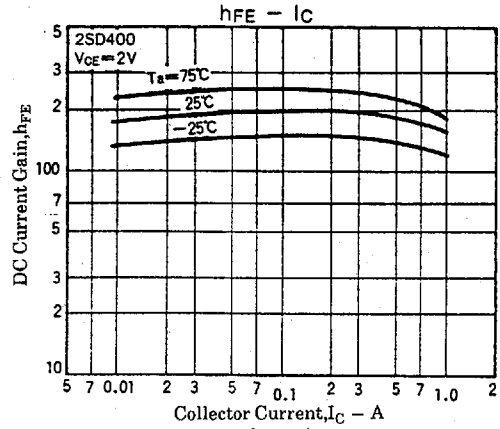
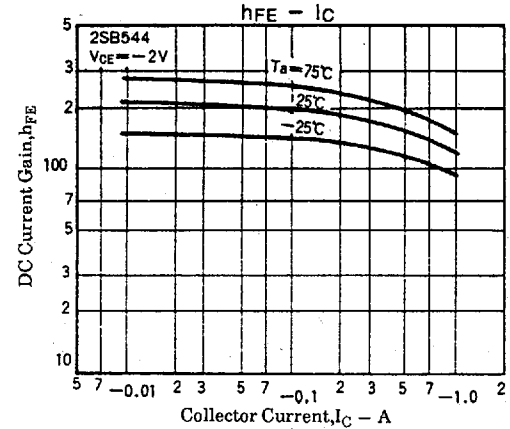
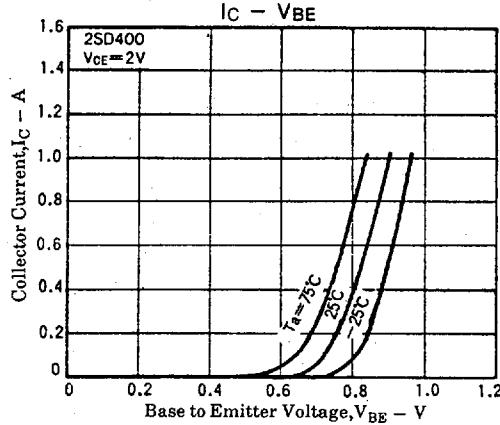
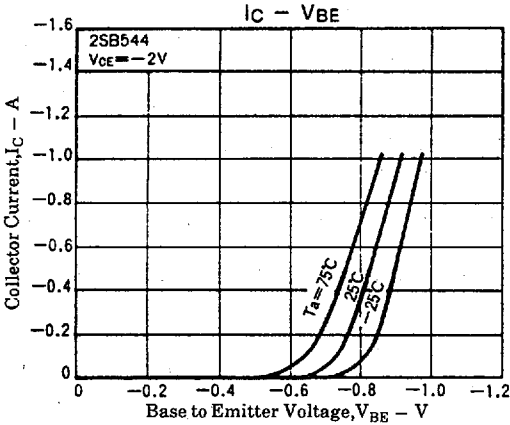
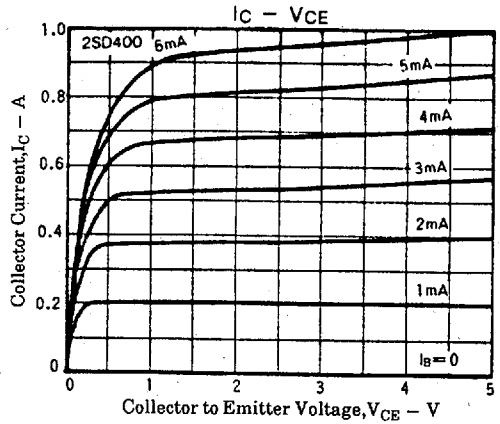
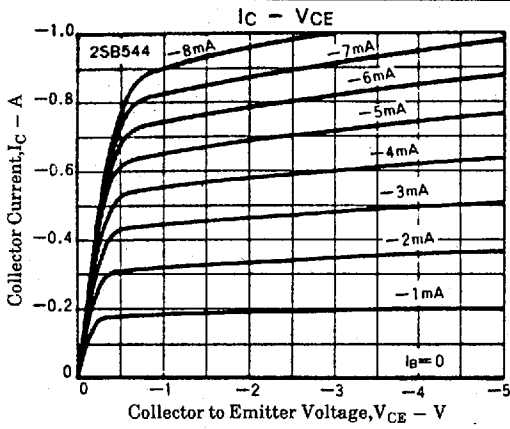
Case Outline 2006A
(unit : mm)



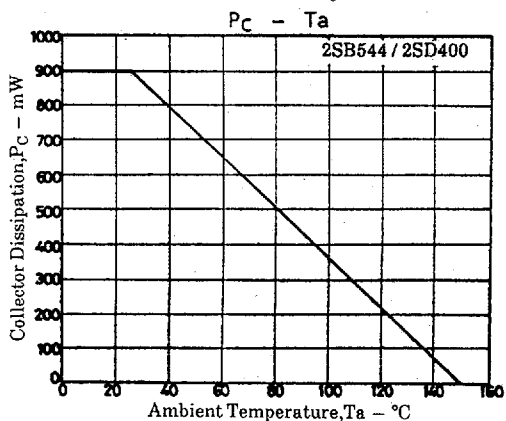
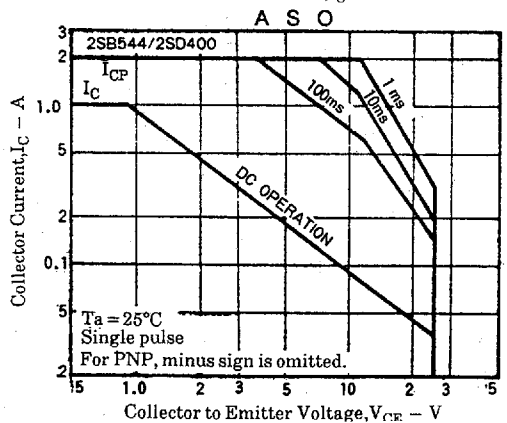
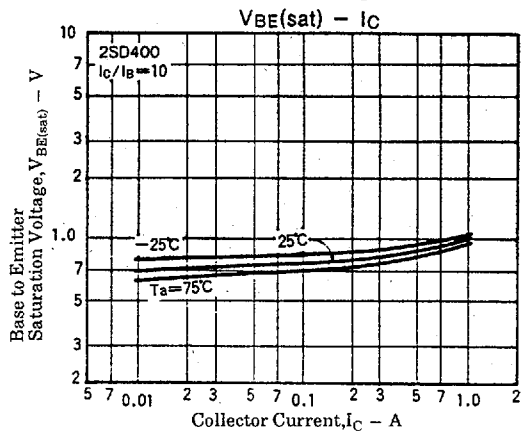
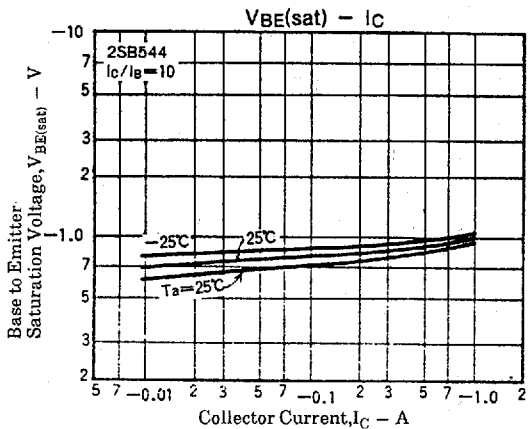
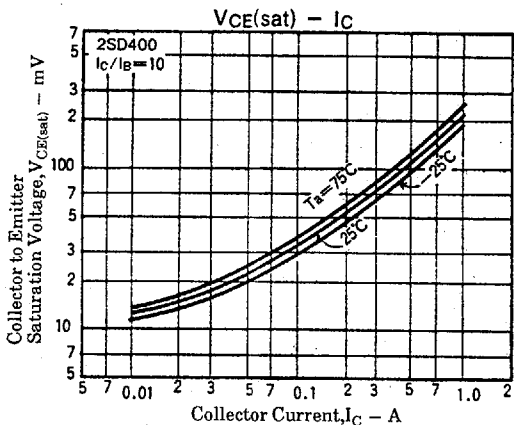
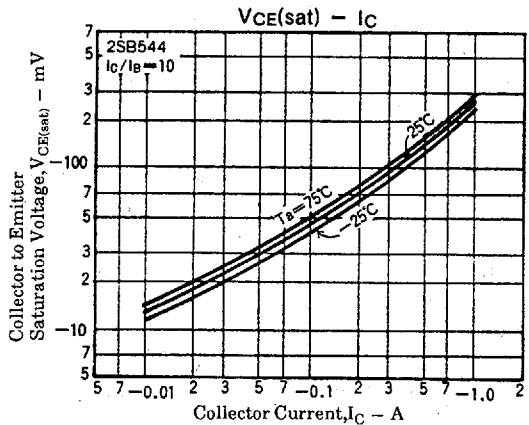
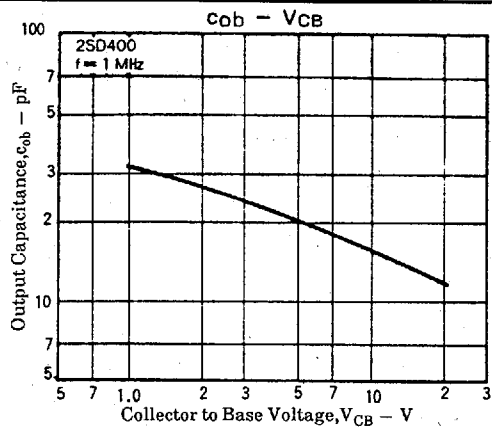
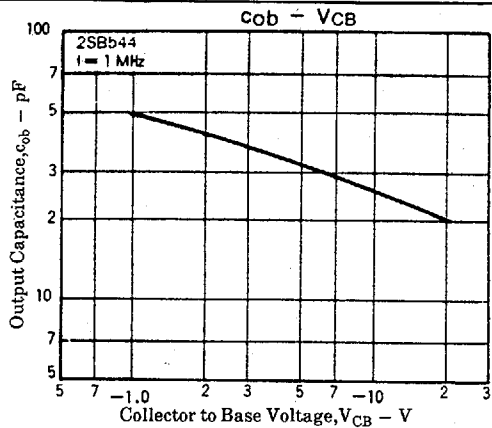
Specifications and information herein are subject to change without notice.

SANYO Electric Co., Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

2SB544/2SD400



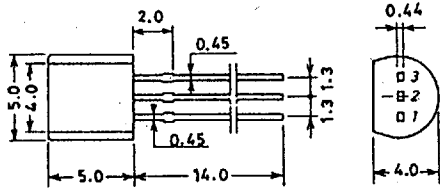
2SB544/2SD400



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.

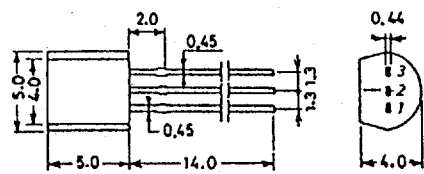
Case Outline 2003A/2003B (unit : mm)



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

1 : Emitter
2 : Collector
3 : Base

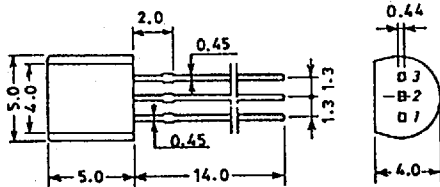
Case Outline 2019A/2019B (unit : mm)



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

1 : Source
2 : Gate
3 : Drain

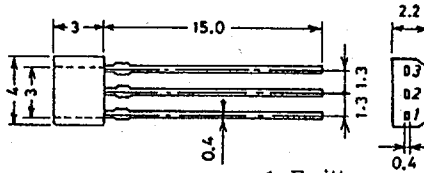
Case Outline 2004A (unit : mm)



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

1 : Base
2 : Emitter
3 : Collector

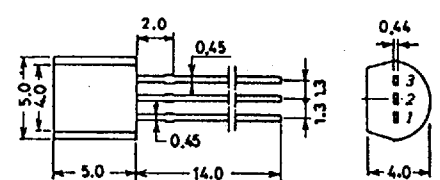
Case Outline 2033 (unit : mm)



1 : Emitter
2 : Collector
3 : Base

SANYO : SPA

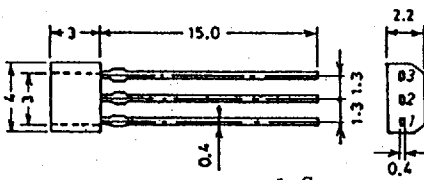
Case Outline 2005A (unit : mm)



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

1 : Drain
2 : Source
3 : Gate

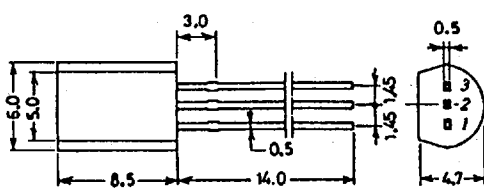
Case Outline 2034/2034A (unit : mm)



1 : Source
2 : Gate
3 : Drain

SANYO : SPA

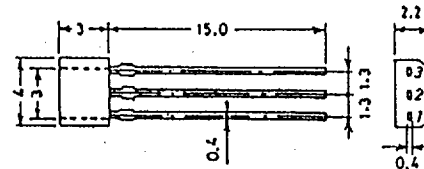
Case Outline 2006A (unit : mm)



EIAJ : SC-51
SANYO : MP

1 : Emitter
2 : Collector
3 : Base

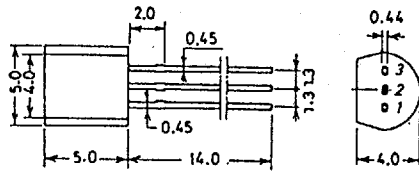
Case Outline 2040 (unit : mm)



1 : Drain
2 : Source
3 : Gate

SANYO : SPA

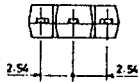
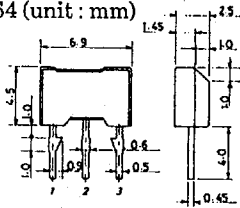
Case Outline 2061 (unit : mm)



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

1 : Emitter
2 : Base
3 : Collector

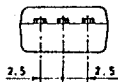
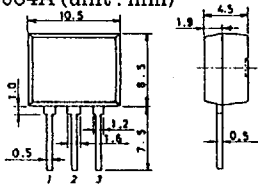
Case Outline 2064 (unit : mm)



1 : Emitter
2 : Collector
3 : Base

SANYO : NMP

Case Outline 2084A (unit : mm)



1 : Emitter
2 : Collector
3 : Base

SANYO : FLP