	No.199J	<b>2SB544/2SD400</b> PNP/NPN Epitaxial Planar Silicon Transistors Low-Frequency Power Amp, Electronic Governor Applications

( ): 2SB544

**Absolute Maximum Ratings at Ta=25°C**

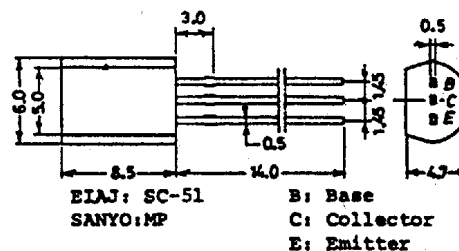
		unit
Collector to Base Voltage	$V_{CBO}$	(- )25 V
Collector to Emitter Voltage	$V_{CEO}$	(- )25 V
Emitter to Base Voltage	$V_{EBO}$	(- )5 V
Collector Current	$I_C$	(- )1 A
Collector Current(Pulse)	$I_{CP}$	(- )2 A
Collector Dissipation	$P_C$	900 mW
Junction Temperature	$T_j$	150 °C
Storage Temperature	$T_{stg}$	-55 to +150 °C

**Electrical Characteristics at Ta=25°C**

			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=(-)20V, I_E=0$			(- )1.0	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=(-)4V, I_C=0$			(- )1.0	$\mu A$
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	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0$	(- )25			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	(- )25			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=0$	(- )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
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**Case Outline 2006A**  
(unit : mm)

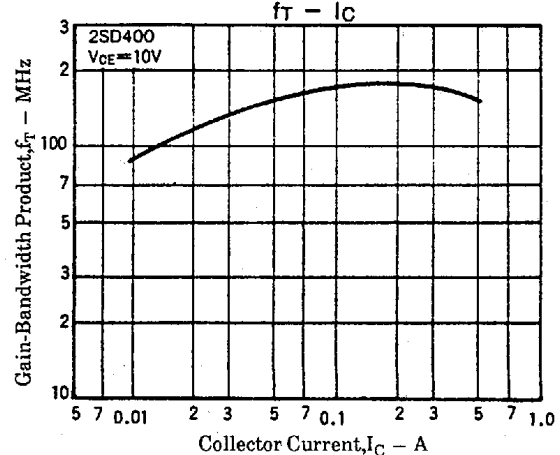
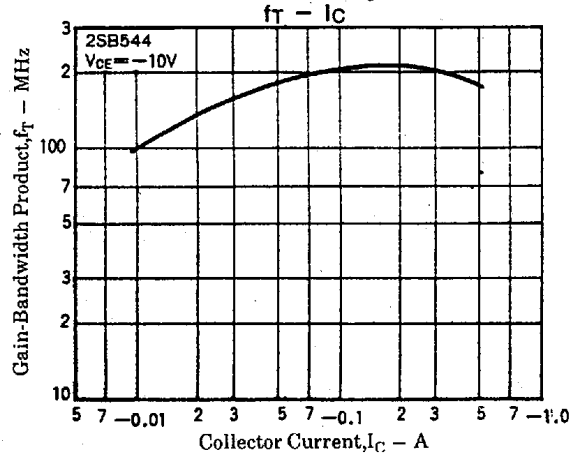
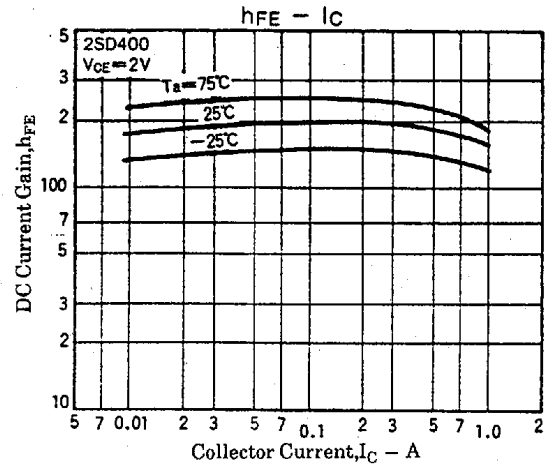
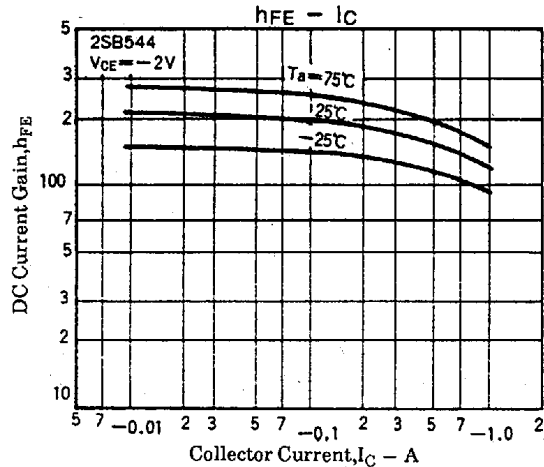
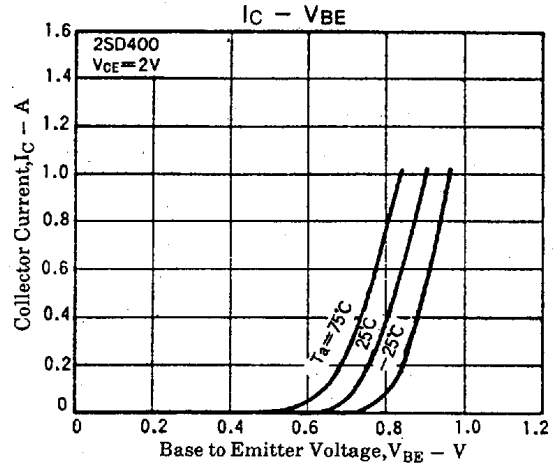
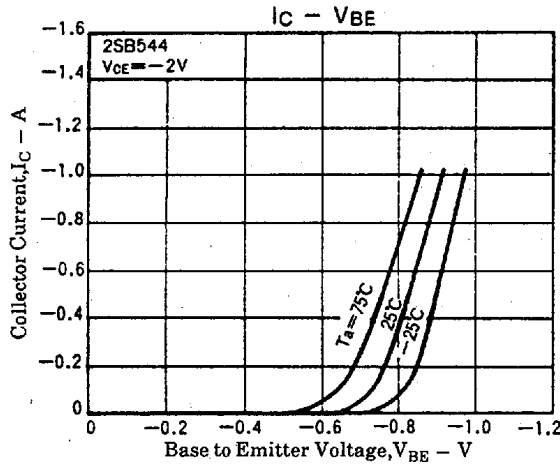
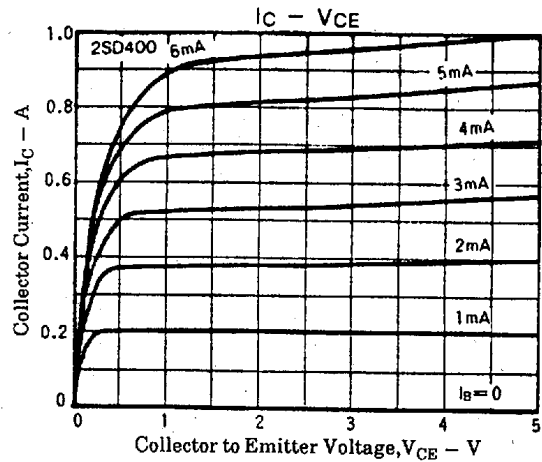
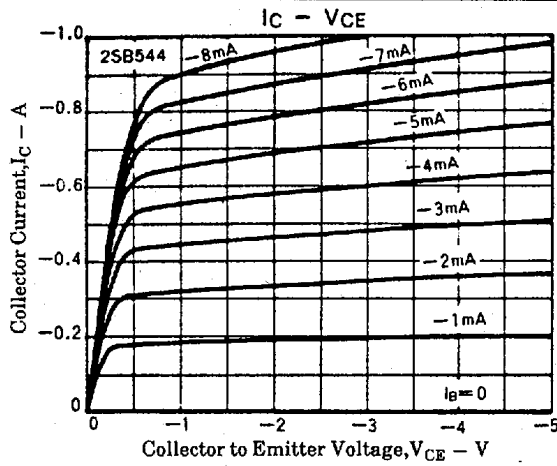
Specifications and information herein are subject to change without notice.

**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

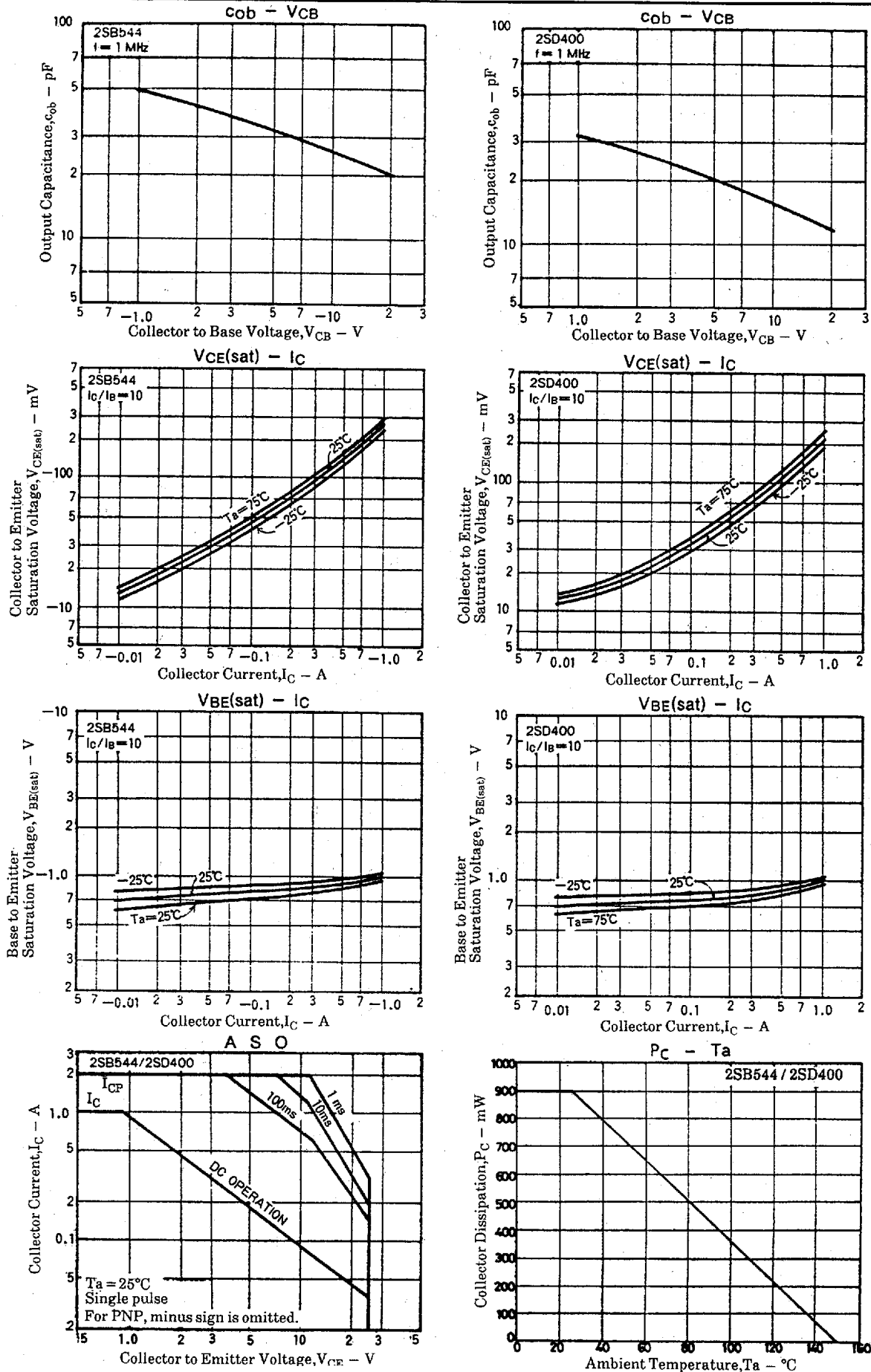
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

4280MO/5157AT/D174MW,TS No.199-1/3

7997076 0015716 149



# 2SB544/2SD400

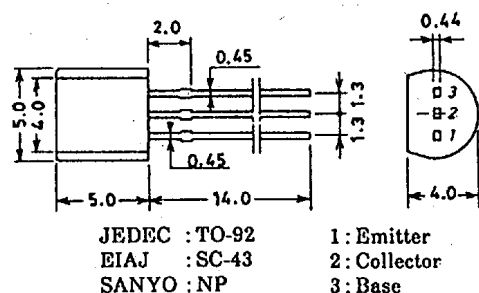


7997076 0015718 T11

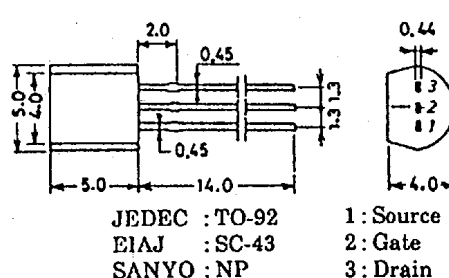
# CASE OUTLINES OF LEAD FORMED SMALL SIGNAL TRANSISTORS

- 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.

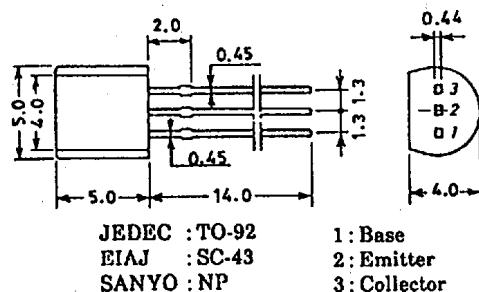
Case Outline 2003A/2003B (unit : mm)



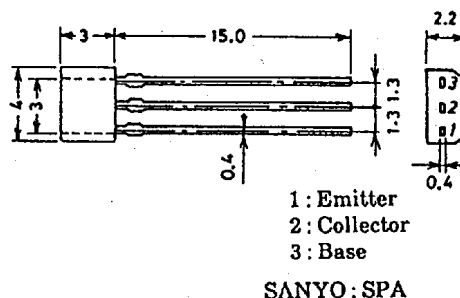
Case Outline 2019A/2019B (unit : mm)



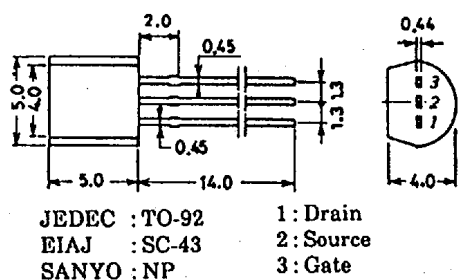
Case Outline 2004A (unit : mm)



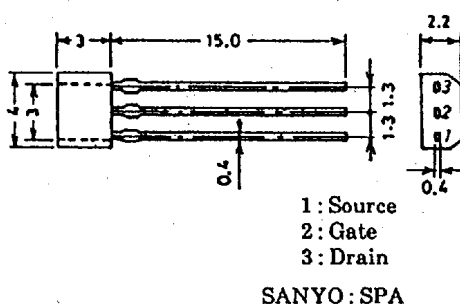
Case Outline 2033 (unit : mm)



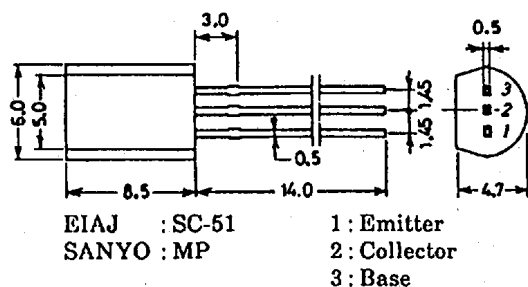
Case Outline 2005A (unit : mm)



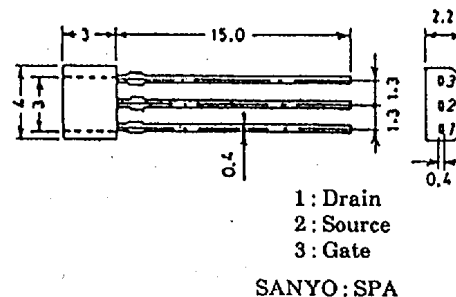
Case Outline 2034/2034A (unit : mm)



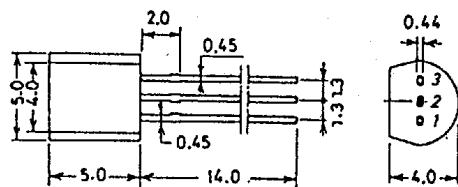
Case Outline 2006A (unit : mm)



Case Outline 2040 (unit : mm)



Case Outline 2061 (unit : mm)



JEDEC : TO-92

EIAJ : SC-43

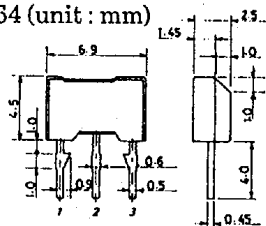
SANYO : NP

1 : Emitter

2 : Base

3 : Collector

Case Outline 2064 (unit : mm)



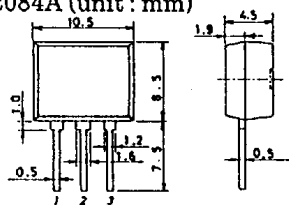
1 : Emitter

2 : Collector

3 : Base

SANYO : NMP

Case Outline 2084A (unit : mm)



1 : Emitter

2 : Collector

3 : Base

SANYO : FLP