

SANYO

No.268J

2SB598/2SD545

PNP/NPN Epitaxial Planar Silicon Transistors

AF Power Amp, Converter,
Electronic Governor Applications

The 2SB598/2SD545 are complementary pair transistors that are packaged in small packages and are large in current capacity and excellent in saturation characteristic and h_{FE} linearity. In addition to the above application areas, they are also suited for use in desk-top calculator power supplies, relay drivers.

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

			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	(-) 1.0	A
Collector Current(Pulse)	I_{CP}	(-) 1.5	A
Collector Dissipation	P_C	600	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to $+150$	$^\circ\text{C}$

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

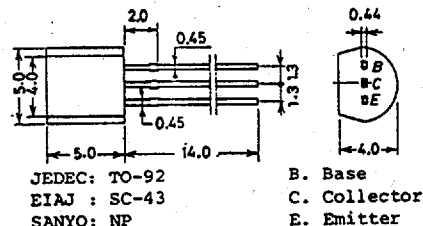
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)20\text{V}, I_E = 0$			(-) 1.0	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)4\text{V}, I_C = 0$			(-) 1.0	μA
DC Current Gain	$h_{FE}(1)$	$V_{CE} = (-)2\text{V}, I_C = (-)50\text{mA}$	60^*			
	$h_{FE}(2)$	$V_{CE} = (-)2\text{V}, I_C = (-)1\text{A}(\text{pulse})$	30		560^*	
Gain-Bandwidth Product	f_T	$V_{CE} = (-)10\text{V}, I_C = (-)50\text{mA}$		180		MHz
Output Capacitance	c_{ob}	$V_{CB} = (-)10\text{V}, f = 1\text{MHz}$		(25) 15		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)500\text{mA}, I_B = (-)50\text{mA}$		0.1	0.3	V
				(-) 0.15	(-) 0.5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)500\text{mA}, I_B = (-)50\text{mA}$		(-) 0.85	(-) 1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu\text{A}, I_E = 0$	(-) 25			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1\text{mA}, R_{BE} = \infty$	(-) 25			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)10\mu\text{A}, I_C = 0$	(-) 5			V

*: The 2SB598/2SD545 are classified by 50mA h_{FE} as follows :

60 D 120	100 E 200	160 F 320	280 G 560
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h_{FE} rank : D,E,F,G

Case Outline 2003A
(unit: mm)



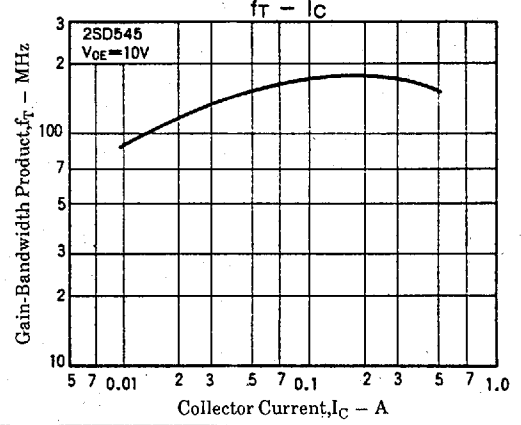
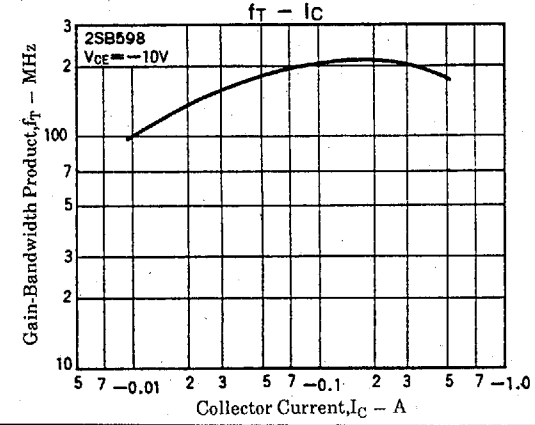
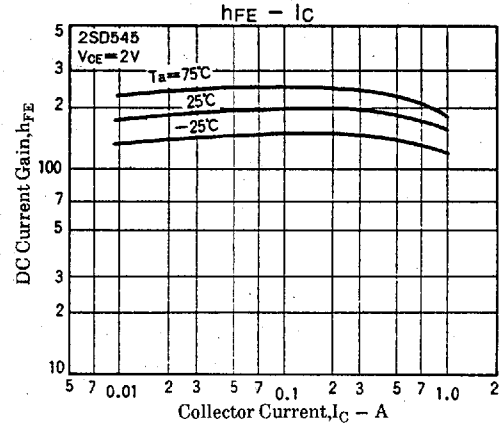
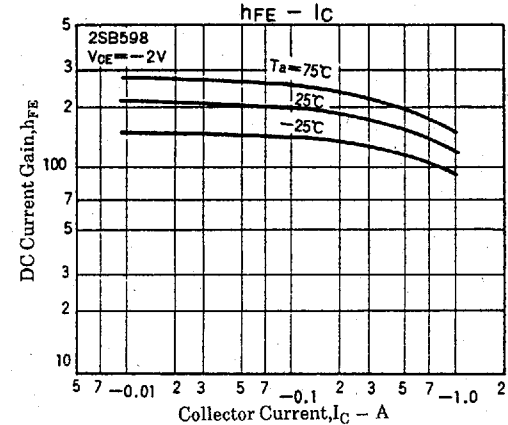
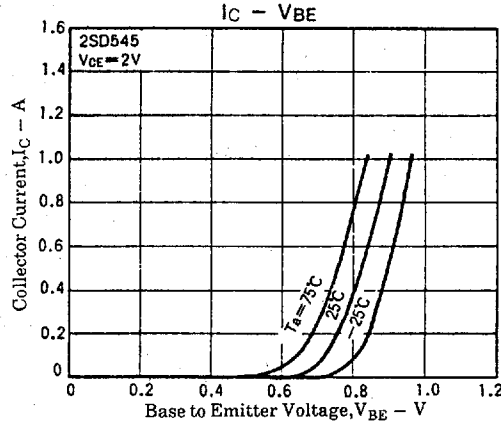
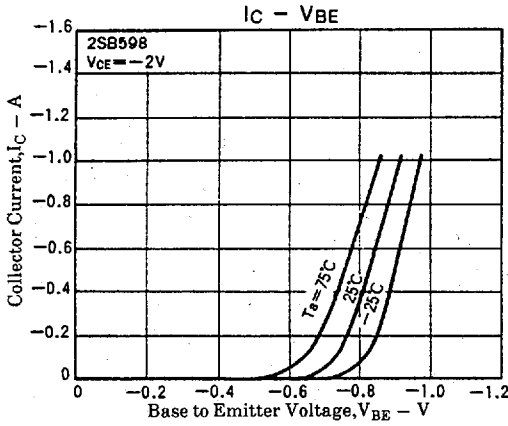
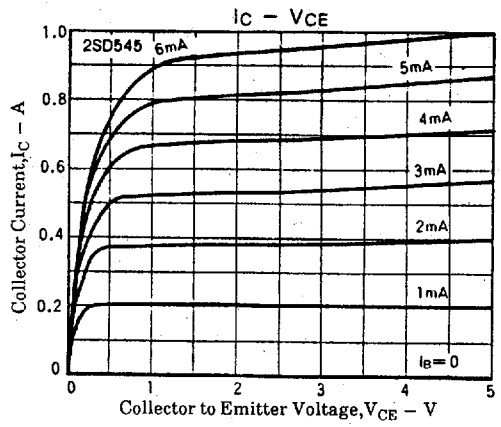
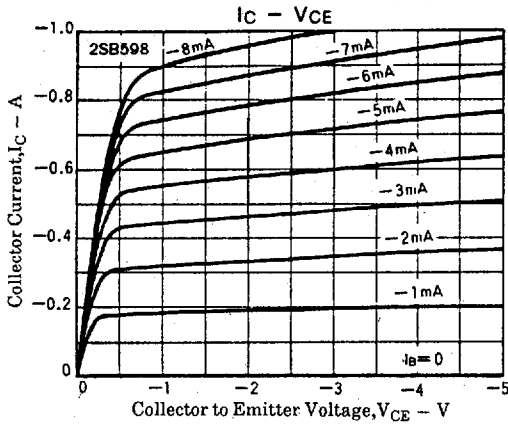
Specifications and information herein are subject to change without notice.

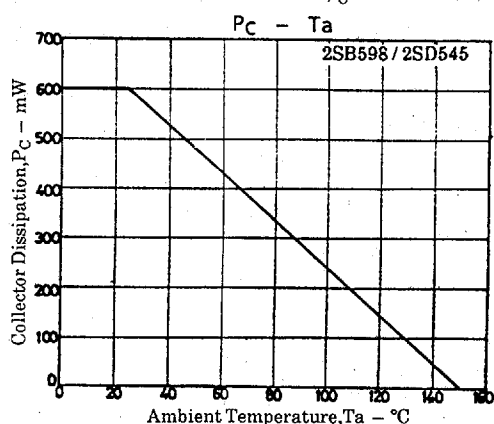
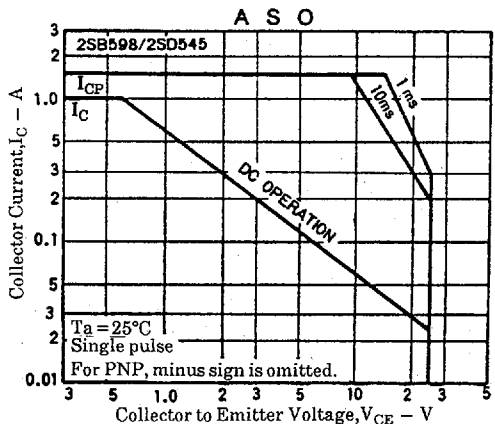
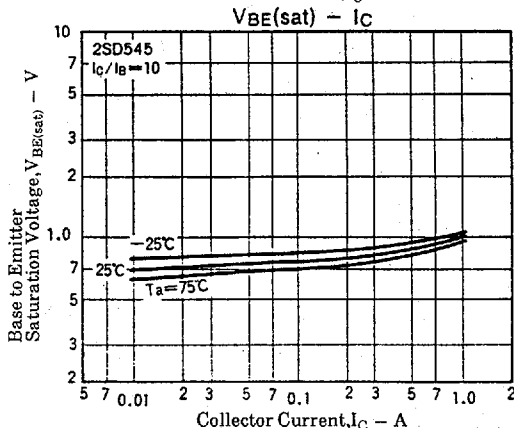
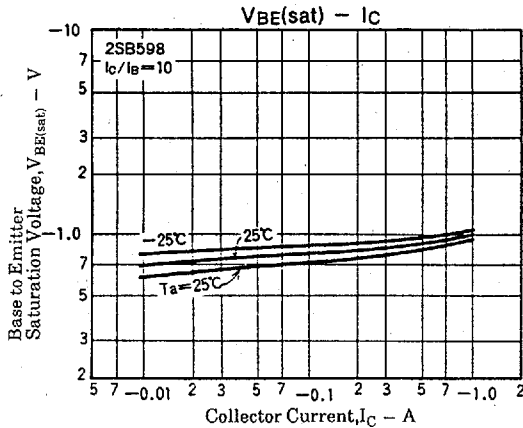
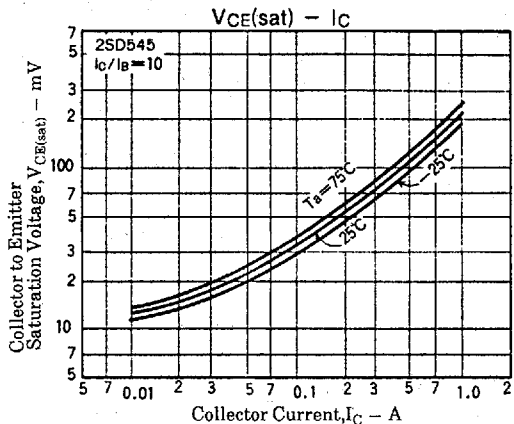
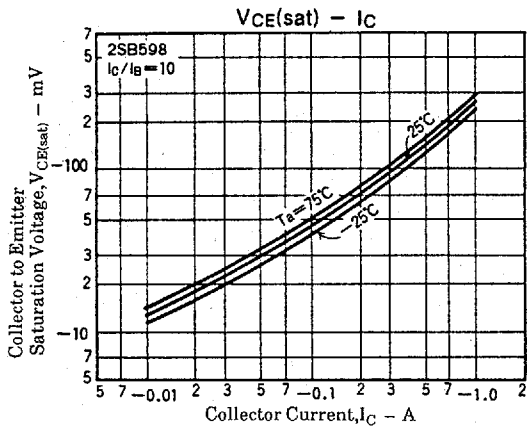
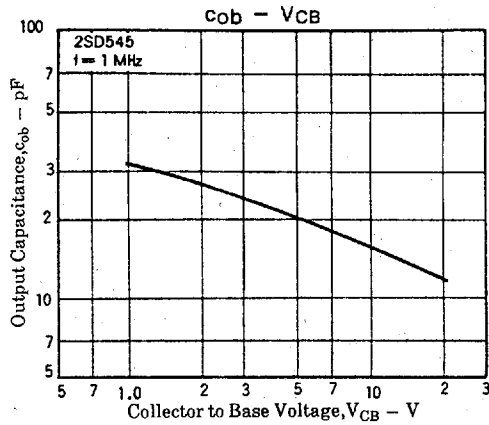
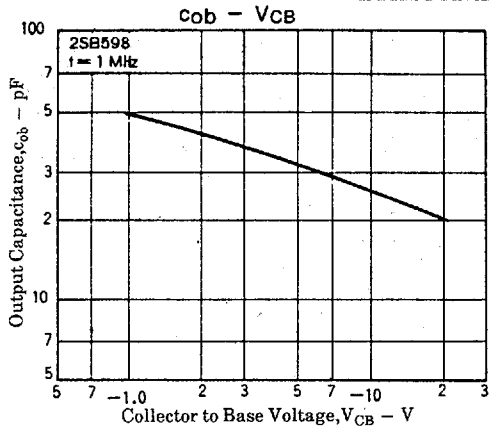
SANYO Electric Co., Ltd. Semiconductor Business Headquarters

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

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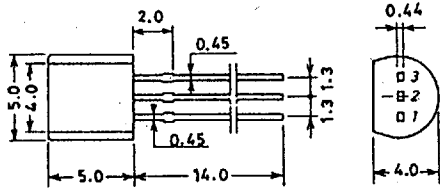




CASE OUTLINES OF LEAD FORMED SMALL SIGNAL TRANSISTORS

- 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.

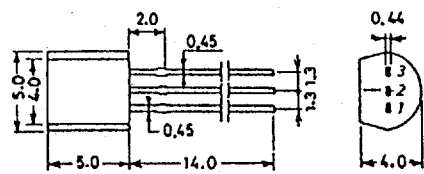
Case Outline 2003A/2003B (unit : mm)



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

1 : Emitter
2 : Collector
3 : Base

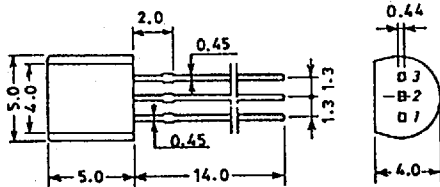
Case Outline 2019A/2019B (unit : mm)



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

1 : Source
2 : Gate
3 : Drain

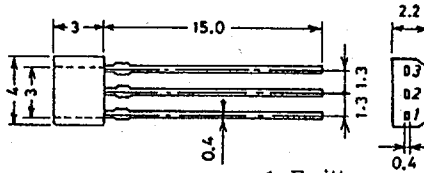
Case Outline 2004A (unit : mm)



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

1 : Base
2 : Emitter
3 : Collector

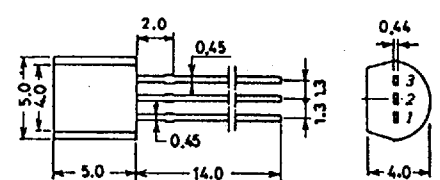
Case Outline 2033 (unit : mm)



1 : Emitter
2 : Collector
3 : Base

SANYO : SPA

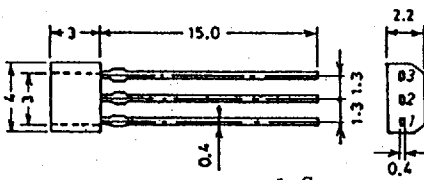
Case Outline 2005A (unit : mm)



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

1 : Drain
2 : Source
3 : Gate

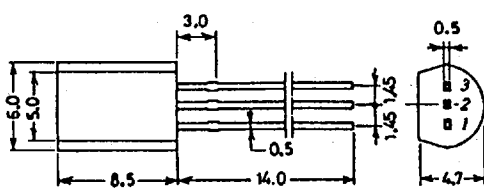
Case Outline 2034/2034A (unit : mm)



1 : Source
2 : Gate
3 : Drain

SANYO : SPA

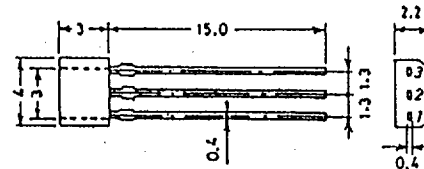
Case Outline 2006A (unit : mm)



EIAJ : SC-51
SANYO : MP

1 : Emitter
2 : Collector
3 : Base

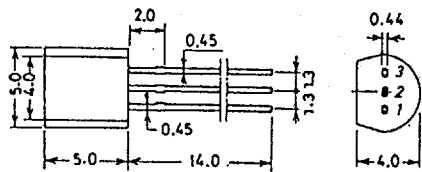
Case Outline 2040 (unit : mm)



1 : Drain
2 : Source
3 : Gate

SANYO : SPA

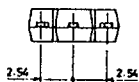
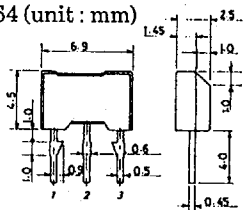
Case Outline 2061 (unit : mm)



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

1: Emitter
2: Base
3: Collector

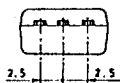
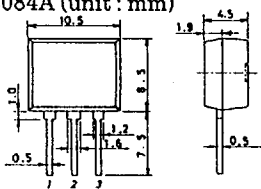
Case Outline 2064 (unit : mm)



1: Emitter
2: Collector
3: Base

SANYO : NMP

Case Outline 2084A (unit : mm)



1: Emitter
2: Collector
3: Base

SANYO : FLP