

SANYO

No.326H

2SB560/2SD438

PNP/NPN Epitaxial Planar Silicon Transistors

Low-Frequency Power Amp Applications

The 2SB560/2SD438 are epitaxial planar transistors for complementary push-pull pair having high reverse voltage and low saturation voltage, and suitable universal AF power amplifier use.

():2SB560

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

			unit
Collector to Base Voltage	V_{CB0}	(-)100	V
Collector to Emitter Voltage	V_{CE0}	(-)80	V
Emitter to Base Voltage	V_{EB0}	(-)5	V
Collector Current	I_C	(-)0.7	A
Collector Current(Pulse)	I_{CP}	(-)1.0	A
Collector Dissipation	P_C	900	mW
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^{\circ}\text{C}$

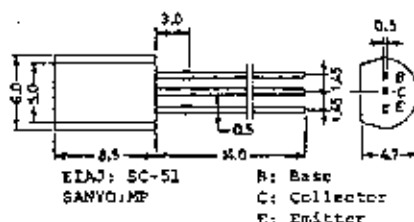
Electrical Characteristics at $T_a=25^{\circ}\text{C}$

			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	$h_{FE}(1)$	$V_{CE}=(-)5\text{V}, I_C=(-)50\text{mA}$	60*		560*	
	$h_{FE}(2)$	$V_{CE}=(-)5\text{V}, I_C=(-)0.5\text{A}$	30			
Gain-Bandwidth Product	f_T	$V_{CE}=(-)10\text{V}, I_C=(-)50\text{mA}$		100		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-)10\text{V}, f=1\text{MHz}$		(15)		pF
				10		pF
C-E Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}$	(-)100			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, R_{BE}=\infty$	(-)80			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu\text{A}, I_C=0$	(-)5			V
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)500\text{mA}, I_E=(-)50\text{mA}$		(-0.3)	(-0.8)	V
				0.2	0.6	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)500\text{mA}, I_E=(-)50\text{mA}$	(-)0.85	(-)1.2		V

* The 2SB560/2SD438 are classified by 50mA h_{FE} as follows.

60	D	120	100	E	200	160	F	320	280	G	560
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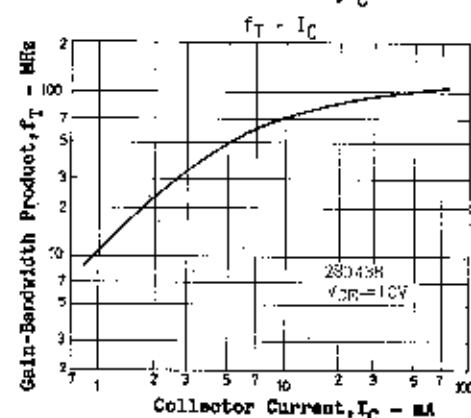
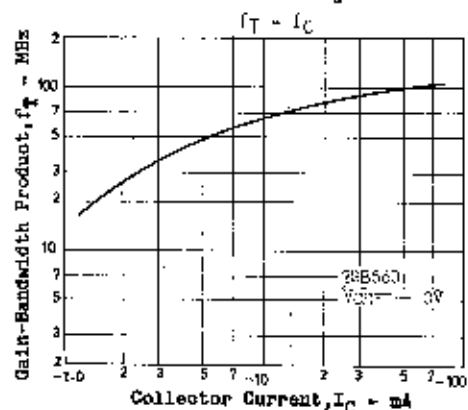
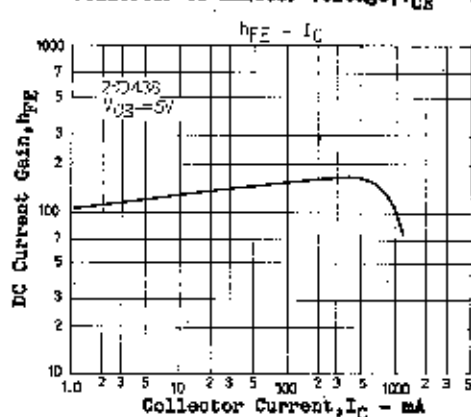
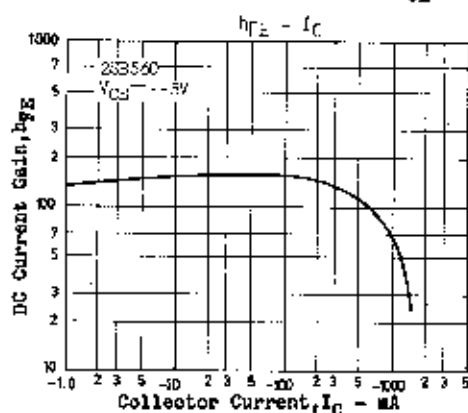
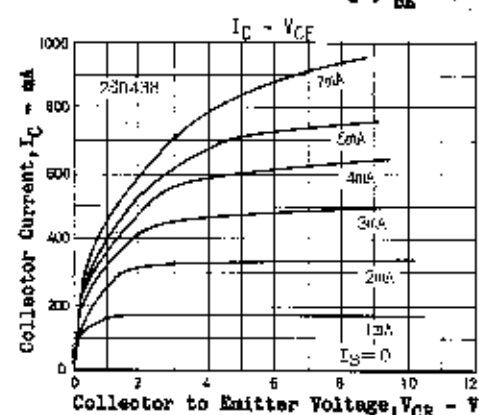
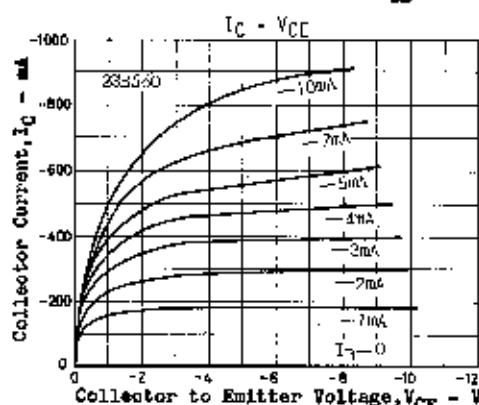
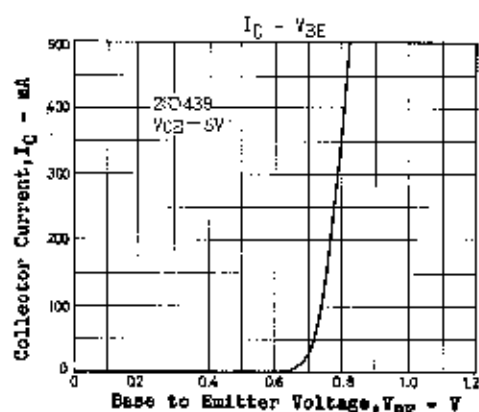
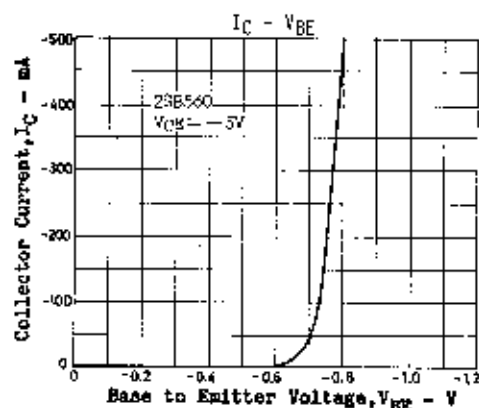
Case Outline 2006A
(unit:mm)

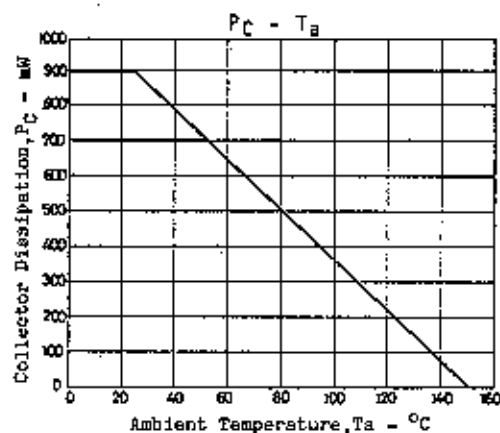
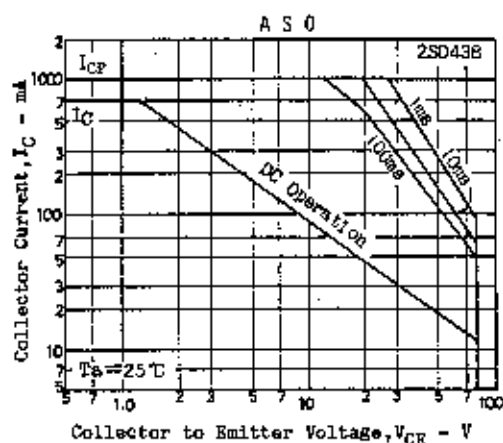
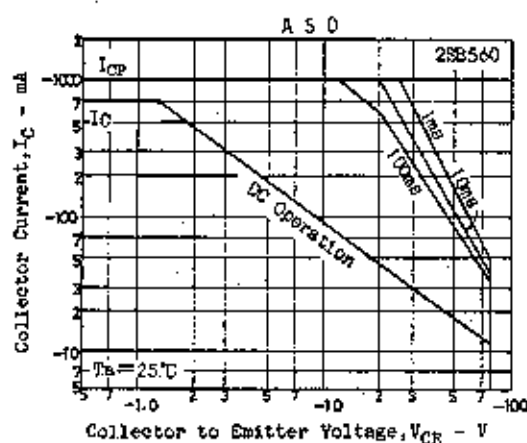
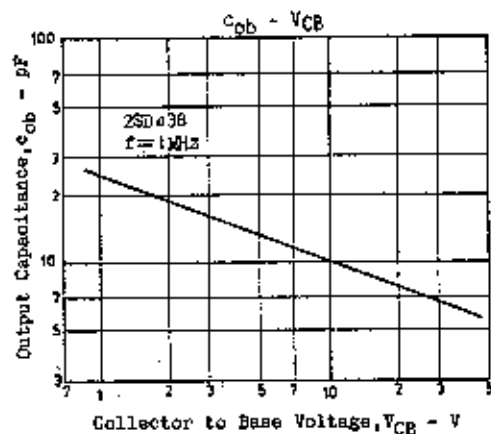
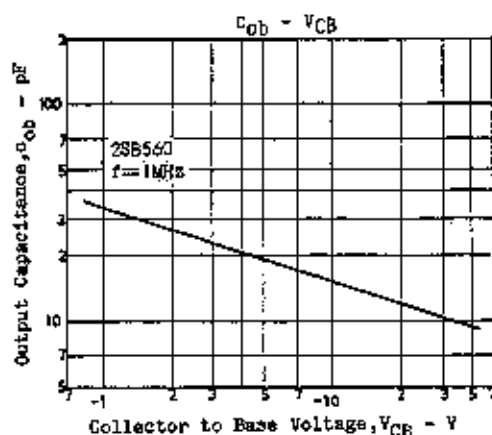


Specifications and information herein are subject to change without notice.

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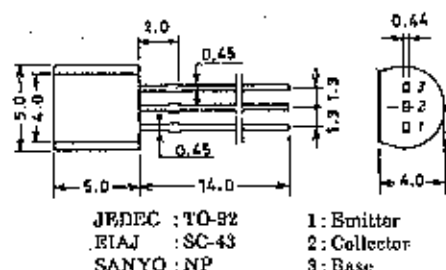




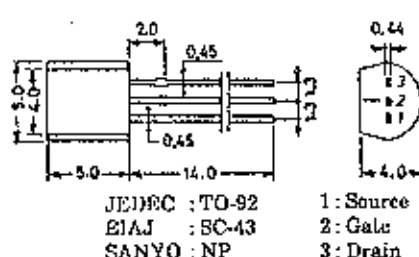
CASE OUTLINES OF LEAD FORMED SMALL SIGNAL TRANSISTORS

- 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.

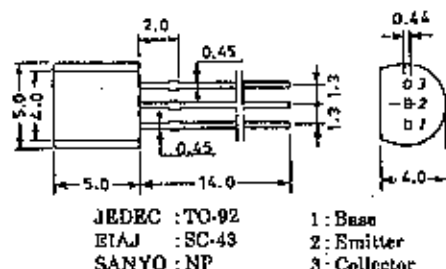
Case Outline 2003A/2003B (unit: mm)



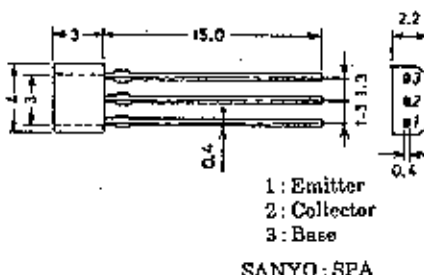
Case Outline 2019A/2019B (unit: mm)



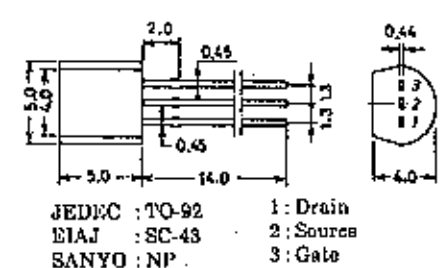
Case Outline 2004A (unit: mm)



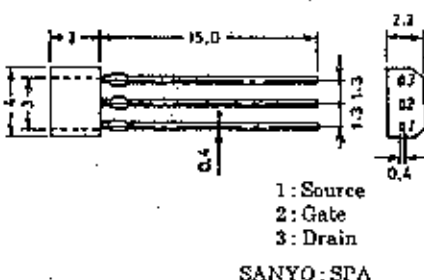
Case Outline 2033 (unit: mm)



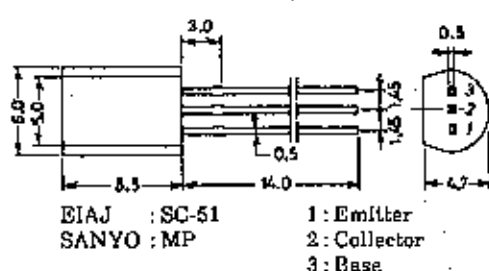
Case Outline 2005A (unit: mm)



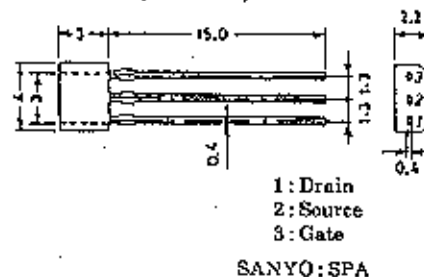
Case Outline 2034/2034A (unit: mm)



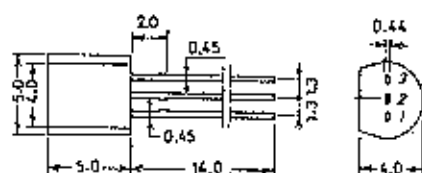
Case Outline 2006A (unit: mm)



Case Outline 2040 (unit: mm)



Case Outline 2061 (unit : mm)



JEDEC : TO-92

EIAJ : SC-43

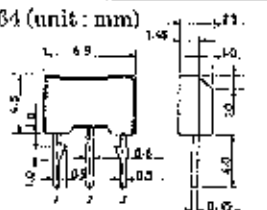
SANYO : NP

1 : Emitter

2 : Base

3 : Collector

Case Outline 2064 (unit : mm)



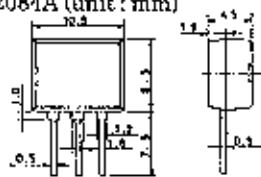
1 : Emitter

2 : Collector

3 : Base

SANYO : NSIP

Case Outline 2084A (unit : mm)



1 : Emitter

2 : Collector

3 : Base

SANYO : PLP