

No. 784E

2SD1145

NPN Epitaxial Planar Silicon Transistor

High-Current Driver Applications

Applications

• Relay drivers, hammer drivers, lamp drivers, strobe DC-DC converttrers, motor drivers.

Features

- Low saturation voltage
- Large current capacity and wide ASO

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

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$			unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	20	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current	I_C	5	A
Collector Current(Pulse)	I_{CP}	8	A
Collector Dissipation	P_C	0.9	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

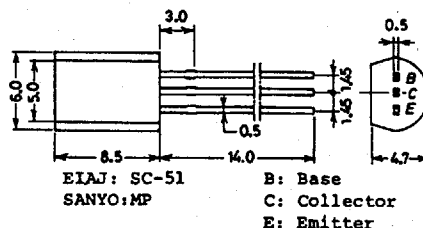
Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Typical Value	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=50V, I_E=0$	1.0 μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=5V, I_C=0$	1.0 μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=2V, I_C=0.5A$	100*
	$h_{FE(2)}$	$V_{CE}=2V, I_C=3A$ (Pulse)	560*
Gain-Bandwidth Product	f_T	$V_{CE}=10V, I_C=50mA$	120 MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$	45 pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C=3A, I_B=60mA$ (Pulse)	0.5 V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C=3A, I_B=60mA$ (Pulse)	1.5 V

※ : The 2SD1145 is classified by 0.5A h_{FE} as follows :

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



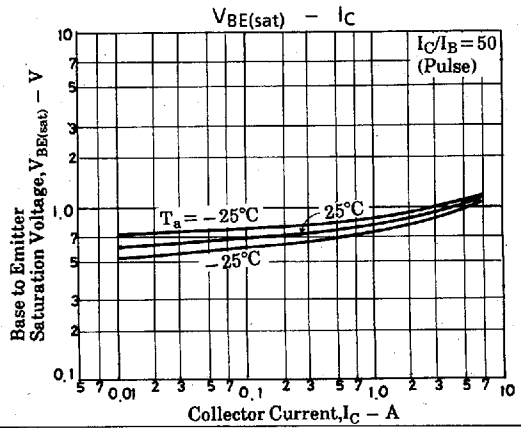
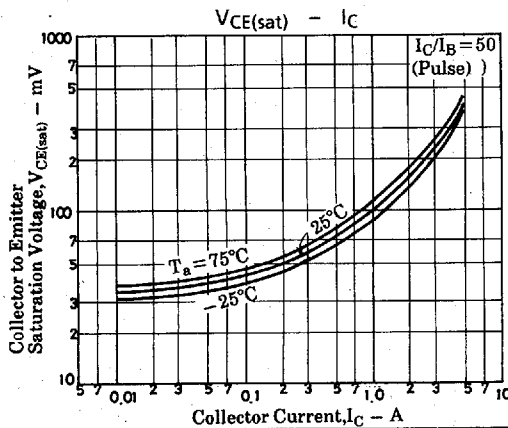
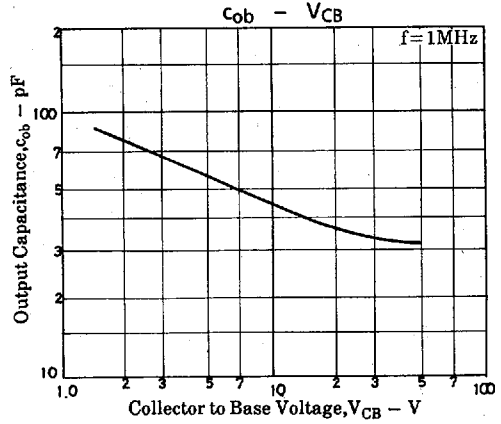
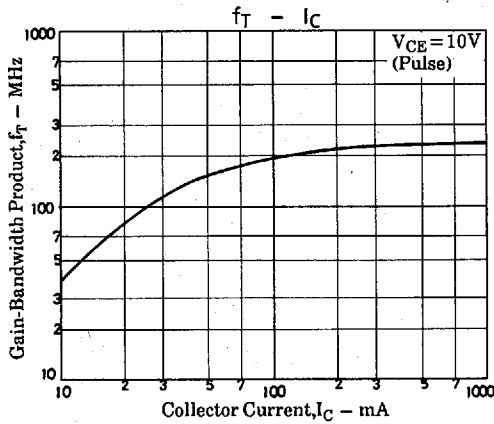
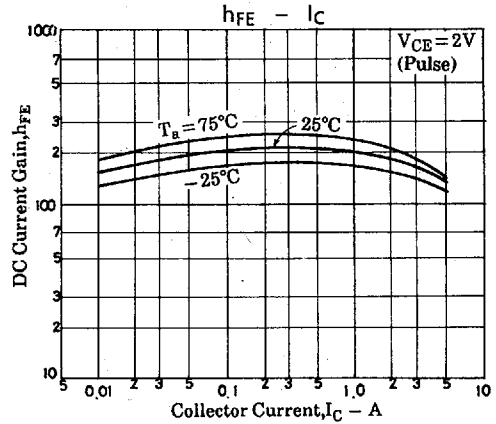
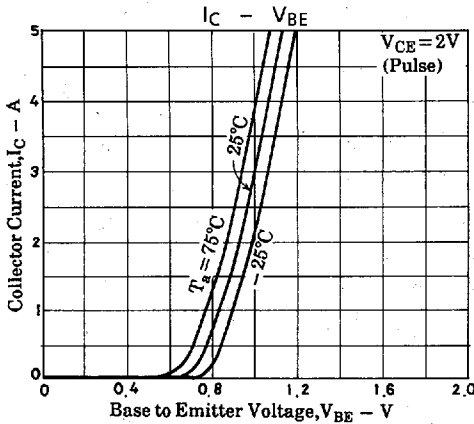
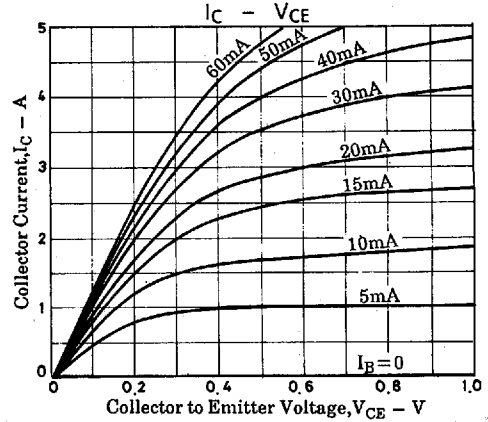
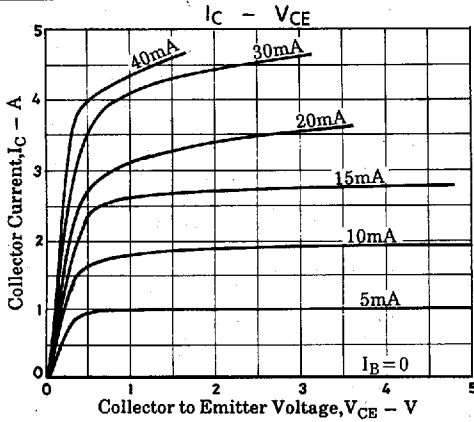
Specifications and information herein are subject to change without notice.

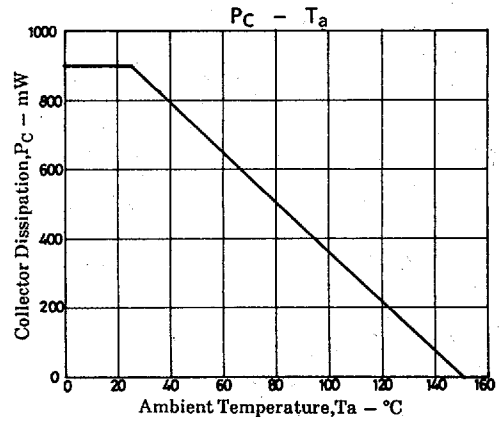
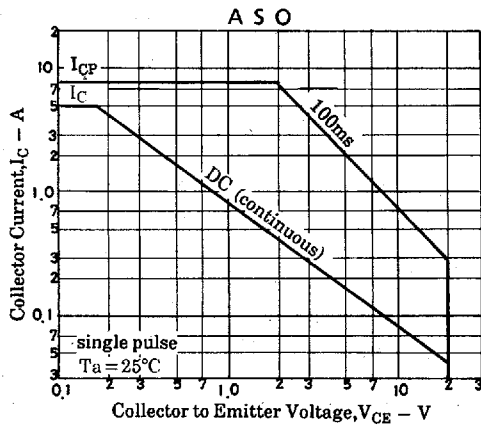
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2090MO/5257KI/3095KI,6212KI, ki No.784-1/3

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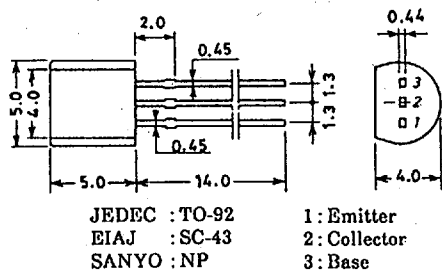




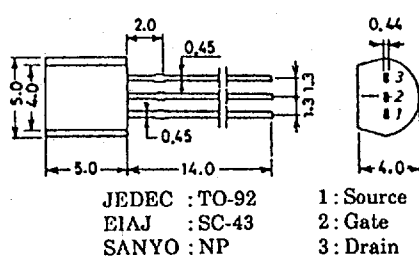
CASE OUTLINES OF LEAD FORMED SMALL SIGNAL TRANSISTORS

- 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.

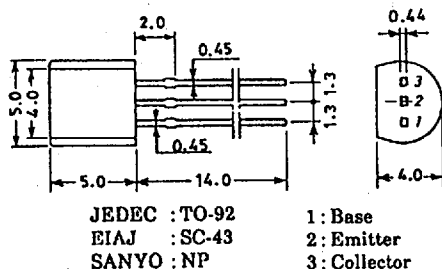
Case Outline 2003A/2003B (unit : mm)



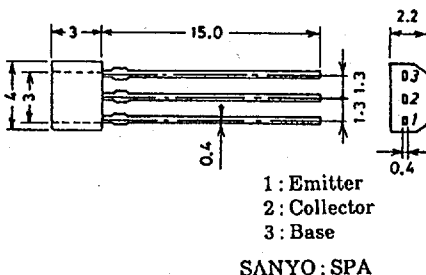
Case Outline 2019A/2019B (unit : mm)



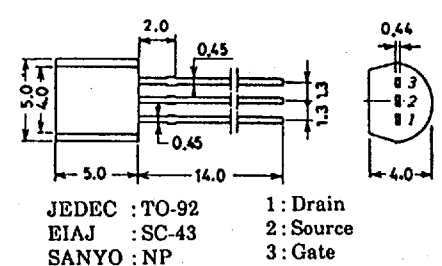
Case Outline 2004A (unit : mm)



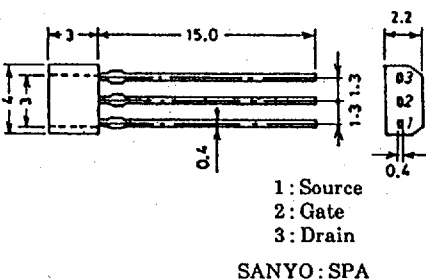
Case Outline 2033 (unit : mm)



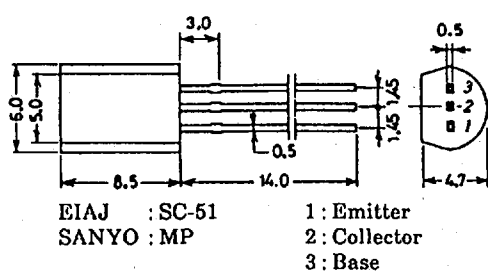
Case Outline 2005A (unit : mm)



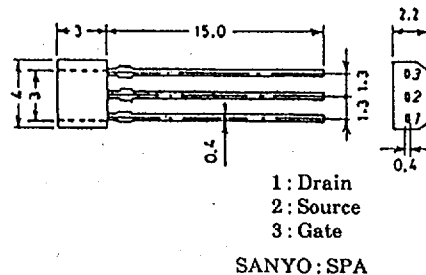
Case Outline 2034/2034A (unit : mm)



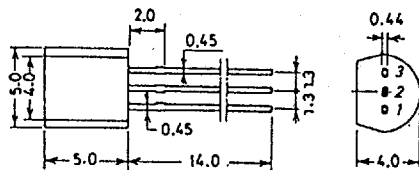
Case Outline 2006A (unit : mm)



Case Outline 2040 (unit : mm)



Case Outline 2061 (unit : mm)



JEDEC : TO-92

EIAJ : SC-43

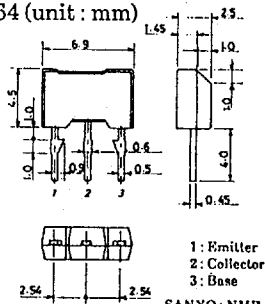
SANYO : NP

1: Emitter

2: Base

3: Collector

Case Outline 2064 (unit : mm)



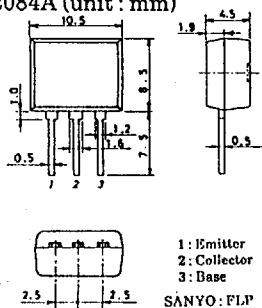
1: Emitter

2: Collector

3: Base

SANYO : NMP

Case Outline 2084A (unit : mm)



1: Emitter

2: Collector

3: Base

SANYO : FLP