

No.465G

2SA984/2SC2274

PNP/NPN Epitaxial Planar Silicon Transistors

AF Power Amp Applications

Features

- High breakdown voltage ($V_{CE0} \geq 50V$).
- High current ($I_C = 500mA$).
- Low saturation voltage.

() : 2SA984

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

			unit
Collector-to-Base Voltage	V_{CB0}	(-)60	V
Collector-to-Emitter Voltage	V_{CE0}	(-)50	V
Emitter-to-Base Voltage	V_{EB0}	(-)5	V
Collector Current	I_C	(-)500	mA
Collector Current(Pulse)	I_{CP}	(-)800	mA
Collector Dissipation	P_C	600	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

Electrical Characteristics at $T_a = 25^\circ C$

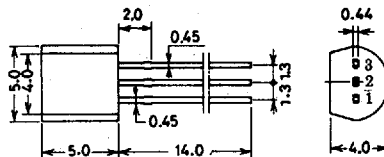
			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)40V, I_E = 0$			(-)1.0	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = (-)4V, I_C = 0$			(-)1.0	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE} = (-)5V, I_C = (-)50mA$	60*		320*	
	$h_{FE(2)}$	$V_{CE} = (-)5V, I_C = (-)400mA$, (pulse)	35			
Gain-Bandwidth Product	f_T	$V_{CE} = (-)10V, I_C = (-)10mA$		120		MHz
Output Capacitance	C_{ob}	$V_{CB} = (-)10V, f = 1MHz$		(9)		pF
				5		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)400mA,$ $I_B = (-)40mA$	(-0.25)		(-0.6)	V
				0.2	0.6	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)400mA, I_B = (-)40mA$	(-)0.9		(-)1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu A, I_E = 0$	(-)60			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1mA, R_{BE} = \infty$	(-)50			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)10\mu A, I_C = 0$	(-)5			V

* : The 2SA984/2SC2274 are classified by 50mA h_{FE} as follows:

60	D	120	100	E	200	160	F	320
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Case Outline 2003B

(unit : mm)



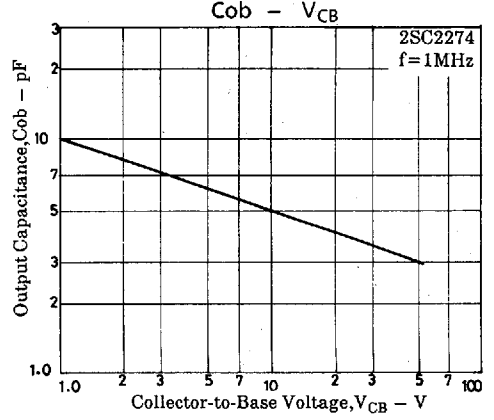
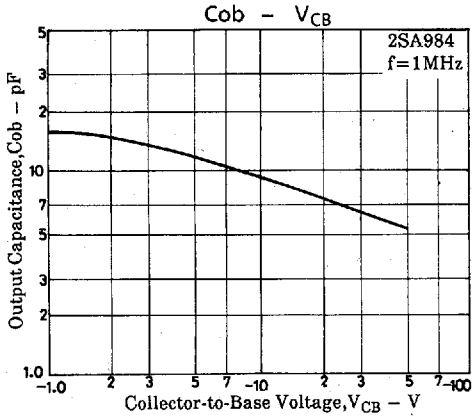
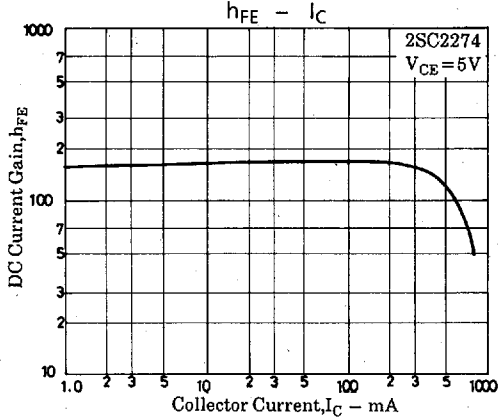
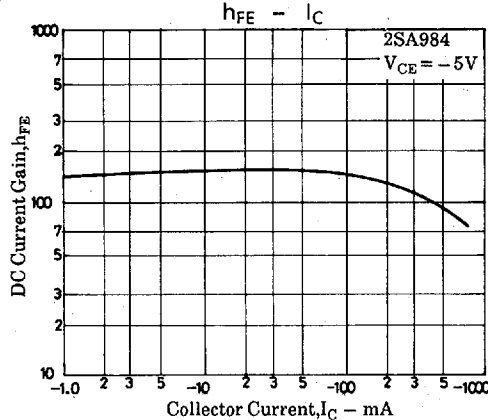
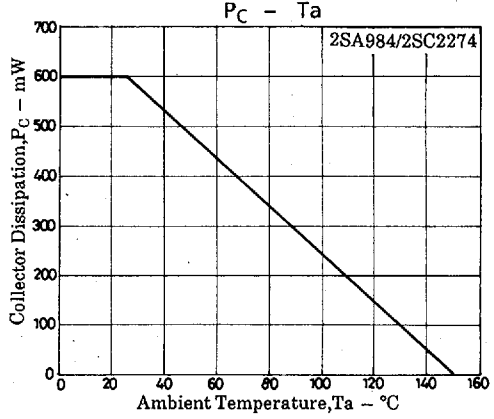
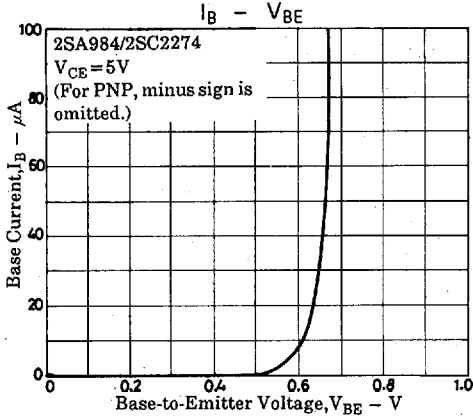
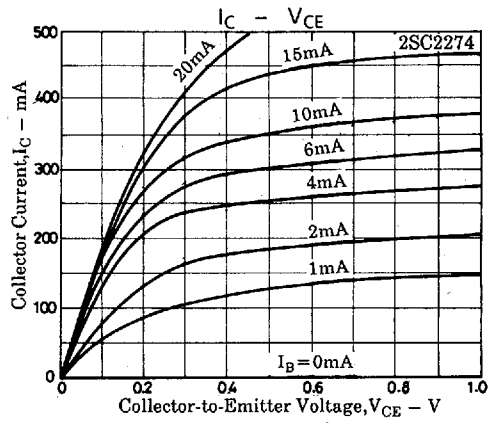
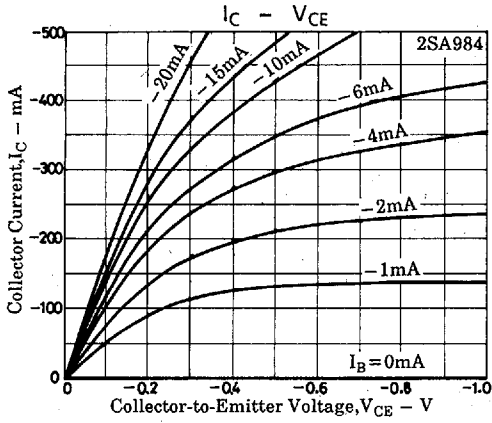
JEDEC: TO-92
EIAJ : SC-43
SANYO: NP

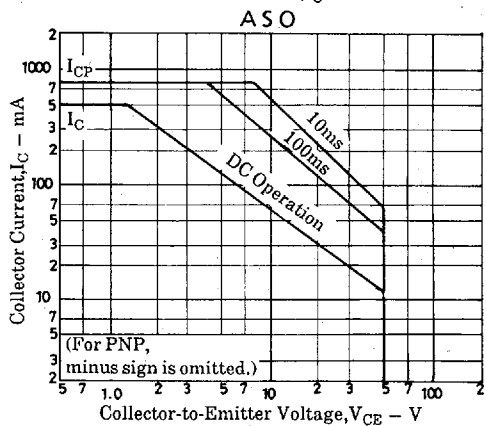
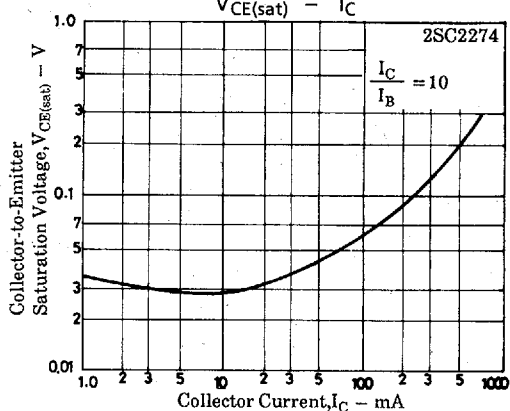
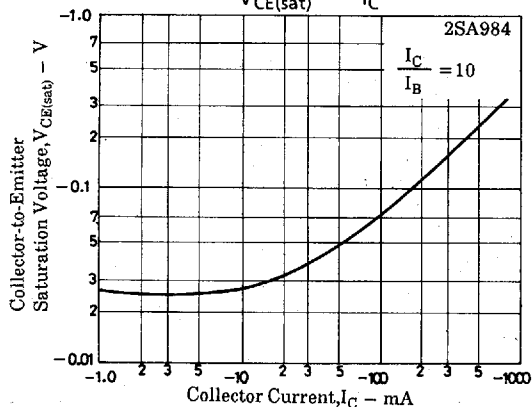
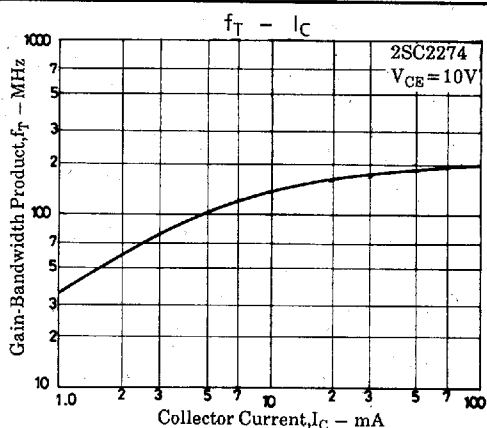
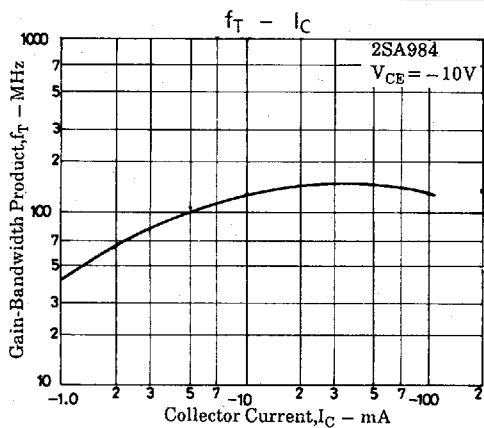
1: Emitter
2: Collector
3: Base

Specifications and information herein are subject to change without notice.

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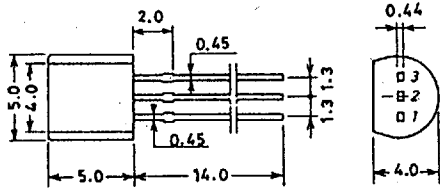




CASE OUTLINES OF LEAD FORMED SMALL SIGNAL TRANSISTORS

- 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.

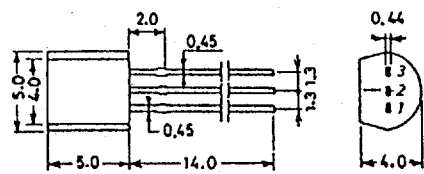
Case Outline 2003A/2003B (unit : mm)



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

1 : Emitter
2 : Collector
3 : Base

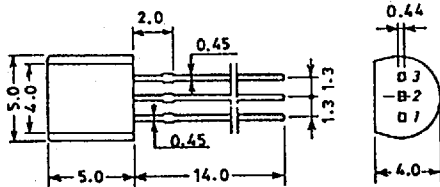
Case Outline 2019A/2019B (unit : mm)



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

1 : Source
2 : Gate
3 : Drain

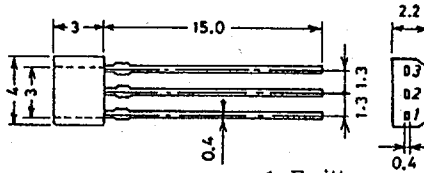
Case Outline 2004A (unit : mm)



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

1 : Base
2 : Emitter
3 : Collector

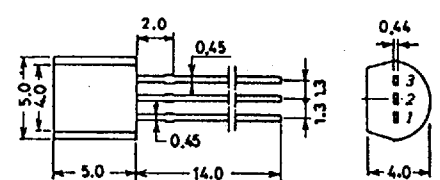
Case Outline 2033 (unit : mm)



1 : Emitter
2 : Collector
3 : Base

SANYO : SPA

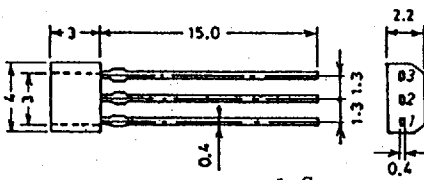
Case Outline 2005A (unit : mm)



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

1 : Drain
2 : Source
3 : Gate

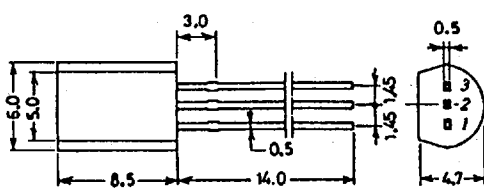
Case Outline 2034/2034A (unit : mm)



1 : Source
2 : Gate
3 : Drain

SANYO : SPA

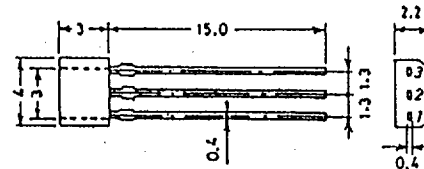
Case Outline 2006A (unit : mm)



EIAJ : SC-51
SANYO : MP

1 : Emitter
2 : Collector
3 : Base

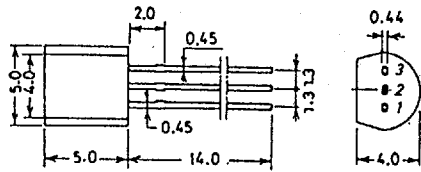
Case Outline 2040 (unit : mm)



1 : Drain
2 : Source
3 : Gate

SANYO : SPA

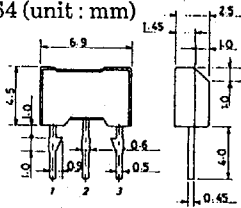
Case Outline 2061 (unit : mm)



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

1: Emitter
2: Base
3: Collector

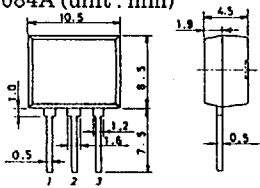
Case Outline 2064 (unit : mm)



1: Emitter
2: Collector
3: Base

SANYO : NMP

Case Outline 2084A (unit : mm)



1: Emitter
2: Collector
3: Base

SANYO : FLP