2SA984, 984K, 2SC2274, 2274K

2003A

PNP/NPN Epitaxial Planar Silicon Transistors

Low-Frequency Power Amp Applications

E465F

Features

- High breakdown voltage ($V_{CEO} \geqq 50/80V$).
- High current (I_C=500mA).
- Low saturation voltage.

( ): 2SA984,984K

Absolute Maximum Ratings at Ta=25°C

		A984,C2274	A984K,C2274K	unit
Collector to Base Voltage	V_{CBO}	(-)60	(-)100	V
Collector to Emitter Voltage	V_{CEO}	(-)50	(-)80	V
Emitter to Base Voltage	V_{EBO}	(-)5		V
Collector Current	I_C	(-)500		mA
Peak Collector Current	i_{cp}	(-)800		mA
Collector Dissipation	P_C	600		mW
Junction Temperature	Tj	150		°C
Storage Temperature	Tstg	-55 to +150		°C

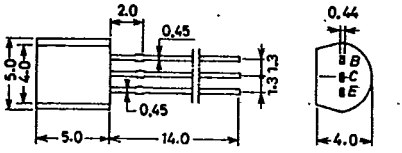
Electrical characteristics at Ta=25°C

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	V_{CB}=(-)40V, I_E=0			(-)1.0	uA
Emitter Cutoff Current	I_{EBO}	V_{EB}=(-)4V, I_C=0			(-)1.0	uA
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	cob	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	$V_{BE}(sat)$	" "		(-)0.9	(-)1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	I_C=(-)10uA, I_E=0 — A984,C2274	(-)60			V
		A984K,C2274K	(-)100			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	I_C=(-)1mA, R_{BE}=∞ — A984,C2274	(-)50			V
		A984K,C2274K	(-)80			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	I_E=(-)10uA, I_C=0	(-) 5			V

* The 2SA984,K, 2SC2274,K are classified by 50mA h_{FE} as follows.

60	D	120	100	E	200	160	F	320

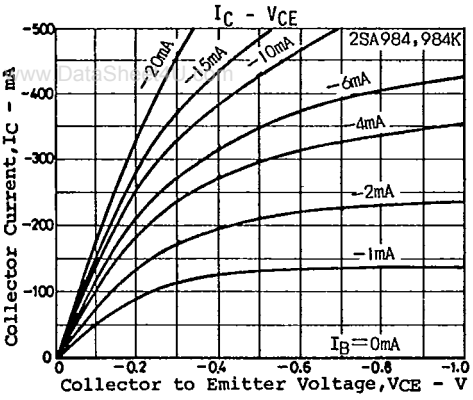
Case Outline 2003A
(unit:mm)

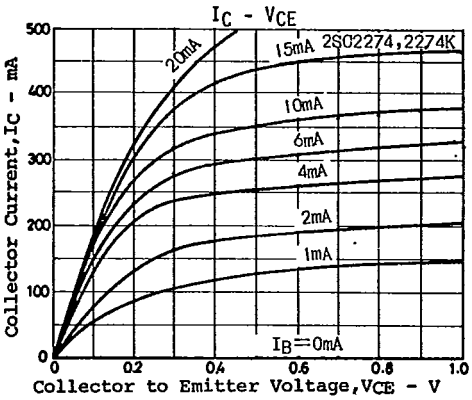


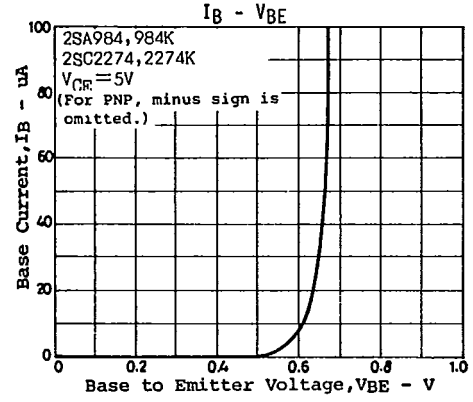
JEDEC: TO-92
EIAJ : SC-43
SANYO: NP

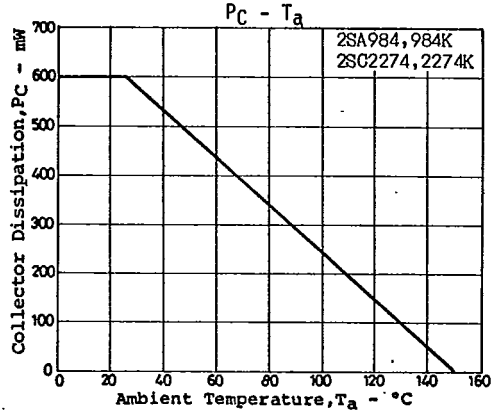
B: Base
C: Collector
E: Emitter

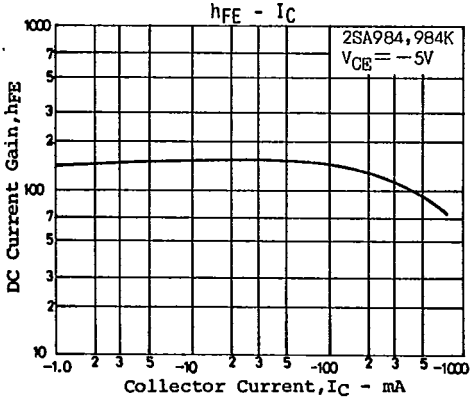
The 2SC2274K is scheduled to be discontinued soon. Use the 2SC3708, instead of the 2SC2274K, in new applications where you are planning to use the 2SC2274K.

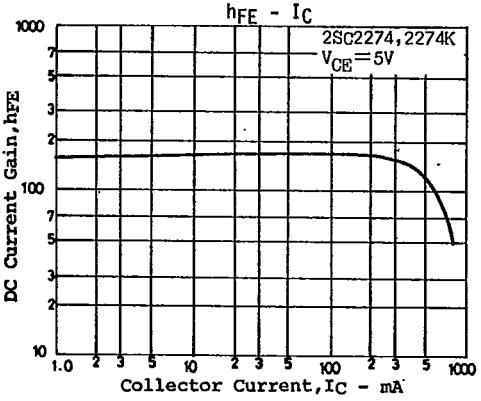


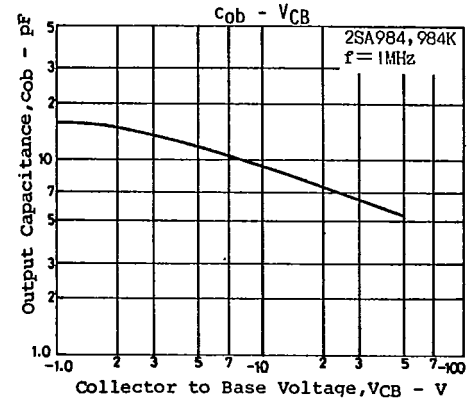


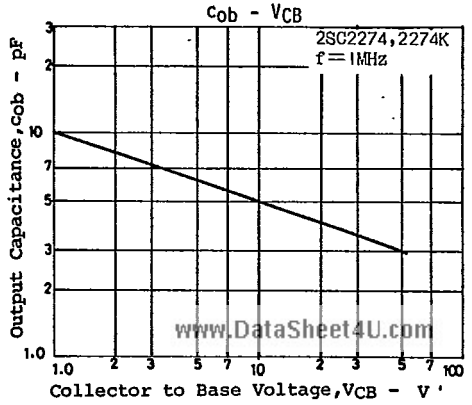


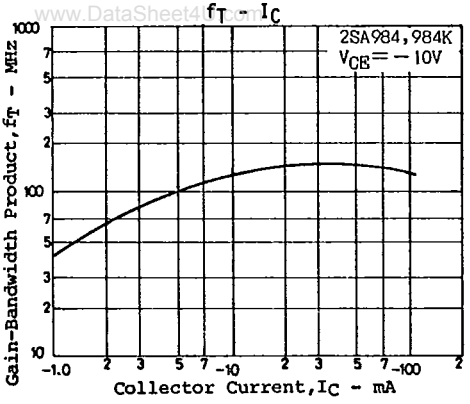


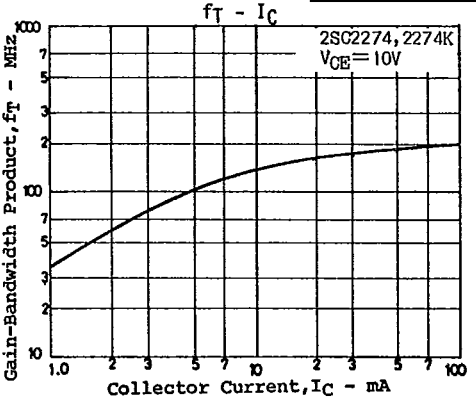


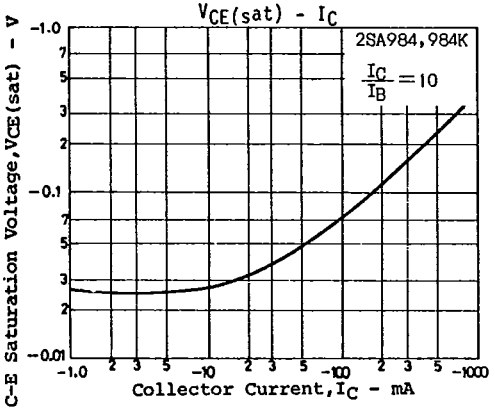


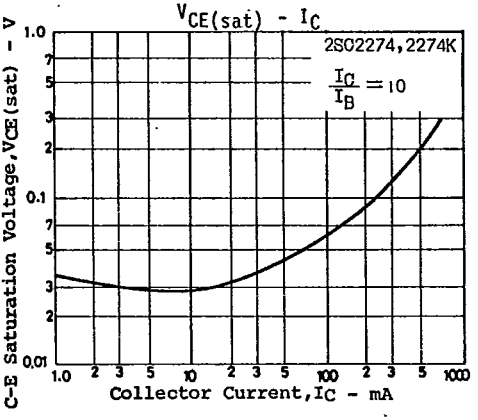


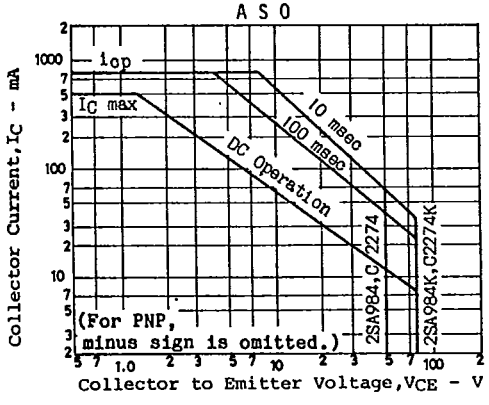








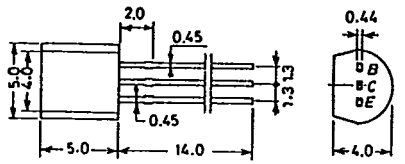




CASE OUTLINES OF LEAD FORMED SMALL SIGNAL TRANSISTORS

- 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.

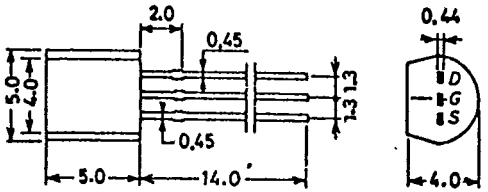
Case Outline—[2003A] unit: mm



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

B. Base
C. Collector
E. Emitter

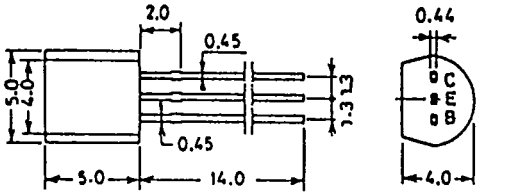
Case Outline—[2019A] unit: mm



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

D: Drain
G: Gate
S: Source

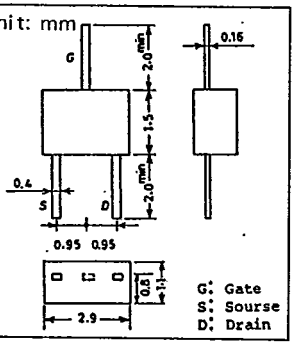
Case Outline—[2004A] unit: mm



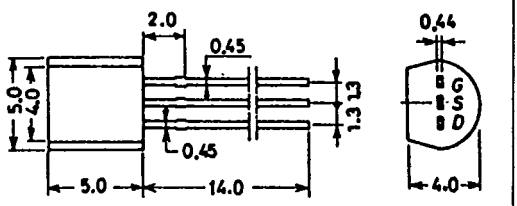
JEDEC: TO-92
EIAJ : SC-43
SANYO: NP

C. Collector
E. Emitter
B. Base

Case Outline—[2025] unit: mm



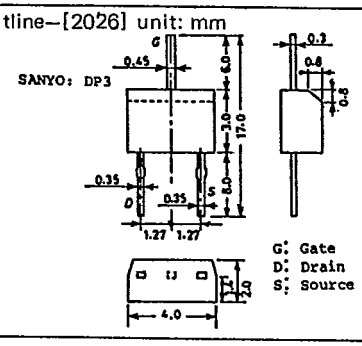
Case Outline—[2005A] unit: mm



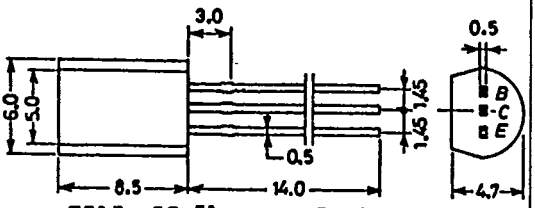
JEDEC: TO-92
EIAJ : SC-43
SANYO: NP

G: Gate
S: Source
D: Drain

Case Outline—[2026] unit: mm



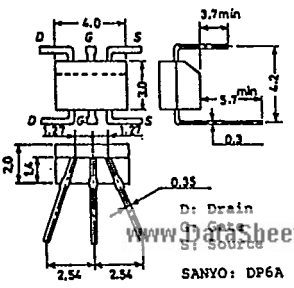
Case Outline—[2006A] unit: mm



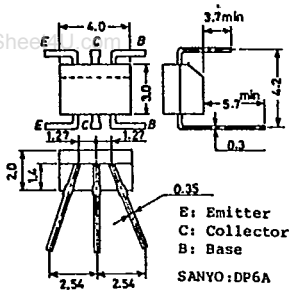
EIAJ: SC-51
SANYO:MP

B: Base
C: Collector
E: Emitter

Case Outline—[2027A] unit: mm



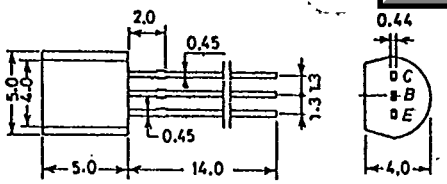
Case Outline—[2029A] unit: mm



E: Emitter
C: Collector
B: Base

SANYO:DP6A

Case Outline—[2061] unit: mm

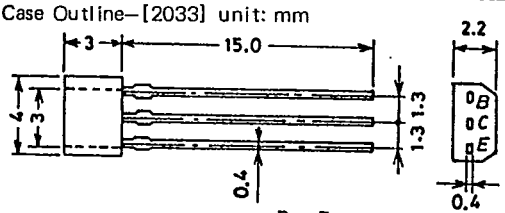


JEDEC: TO-92
EIAJ : SC-43

C: Collector
B: Base
E: Emitter

SANYO: NP

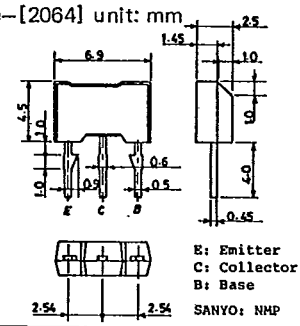
Case Outline—[2033] unit: mm



B: Base
C: Collector
E: Emitter

SANYO: SPA

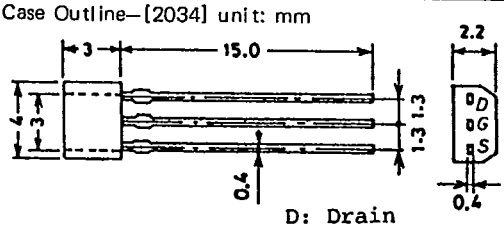
Case Outline—[2064] unit: mm



E: Emitter
C: Collector
B: Base

SANYO: NMP

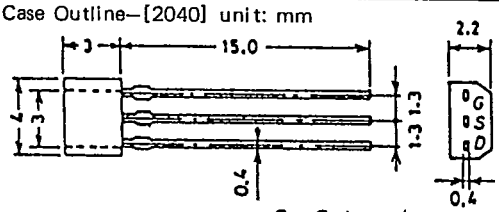
Case Outline—[2034] unit: mm



D: Drain
G: Gate
S: Source

SANYO: SPA

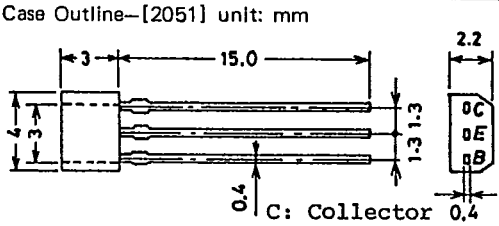
Case Outline—[2040] unit: mm



G: Gate
S: Source
D: Drain

SANYO: SPA

Case Outline—[2051] unit: mm



C: Collector
E: Emitter
B: Base

SANYO: SPA