

2SC2912



2009A

T-33-07

NPN/PNP Epitaxial Planar Silicon Transistors

2SA1210

High Voltage Switching, AF 150W Predriver Applications

©780C

Features

- Adoption of FBET process
- High breakdown voltage
- Good linearity of h_{FE} and small c_{ob}
- Fast switching speed

(): 2SA1210

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

			unit
Collector to base voltage	V _{CB0}	(-)200	V
Collector to emitter voltage	V _{CE0}	(-)200	V
Emitter to base voltage	V _{EB0}	(-)5	V
Collector current	I _C	(-)140	mA
Peak collector current	i _{cp}	(-)200	mA
Collector dissipation	P _C	1	W
		10	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 ~ +150	°C

$T_c = 25^\circ\text{C}$

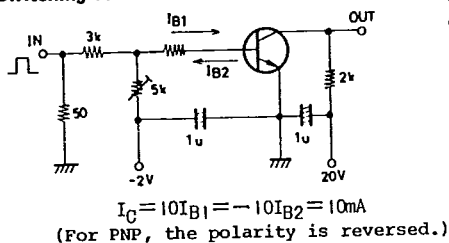
Electrical Characteristics/ $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Collector cutoff current	I _{CB0}	V _{CB} = (-)160, I _E = 0			(-)0.1	μA
Emitter cutoff current	I _{EB0}	V _{EB} = (-)4 V, I _C = 0			(-)0.1	μA
Common emitter DC current gain	h _{FE}	V _{CE} = (-)5 V, I _C = (-) 10 mA	100*		400*	
Gain band-width product	f _T	V _{CE} = (-)10 V, I _C = (-) 10 mA		150		MHz
Common base output capacitance	c _{ob}	V _{CB} = (-)10 V, f = 1 MHz		(4.0)		pF
				3.0		
Collector to emitter saturation voltage V _{CE(sat)}		I _C = (-)50 mA, I _B = (-)5 mA	(-0.14)	(-0.4)		V
			0.07	0.3		
Turn-on time	t _{on}	At specified test circuit		0.1		μs
Storage time	t _{stg}	At specified test circuit		1.5		μs
Fall time	t _f	At specified test circuit		0.1		μs

*: The 2SA1210/2SC2912 are classified by 10 mA h_{FE} as follows:

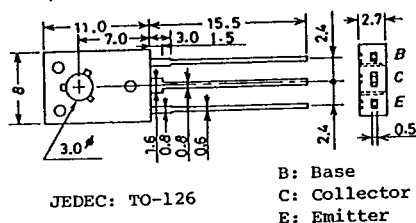
100 R	200	140 S	280	200 T	400
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Switching Time Test Circuit



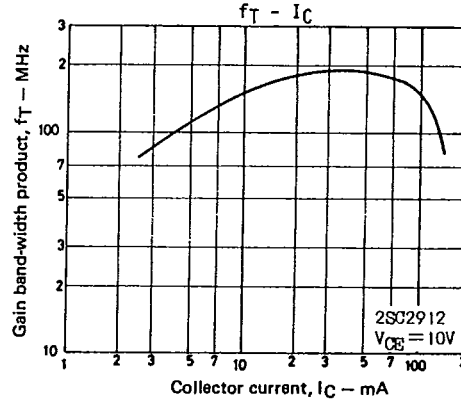
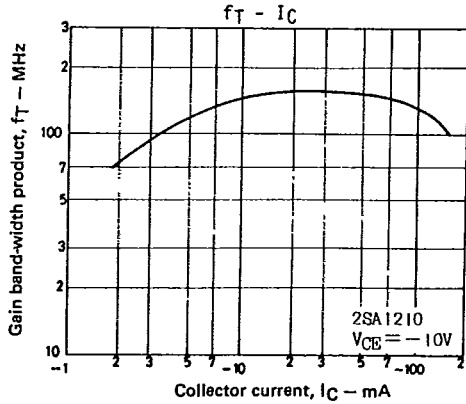
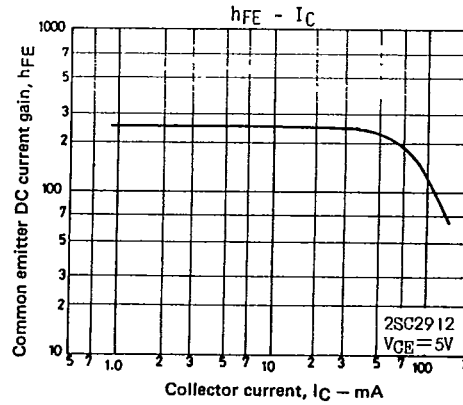
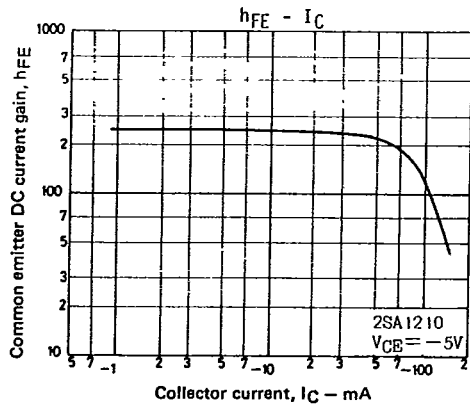
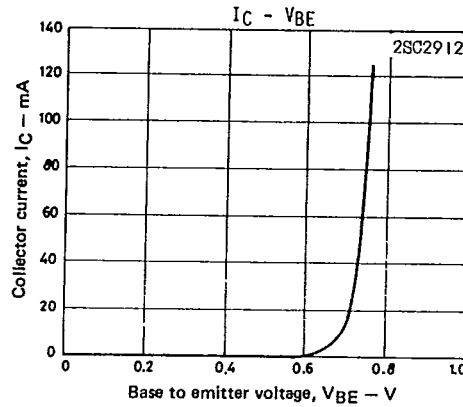
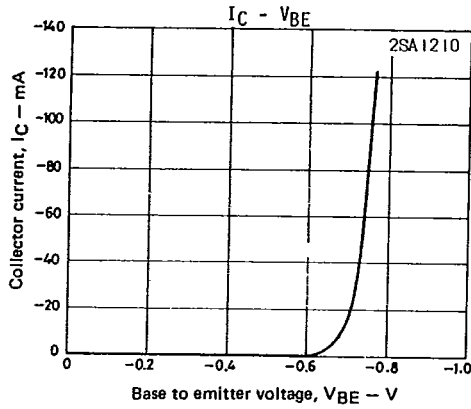
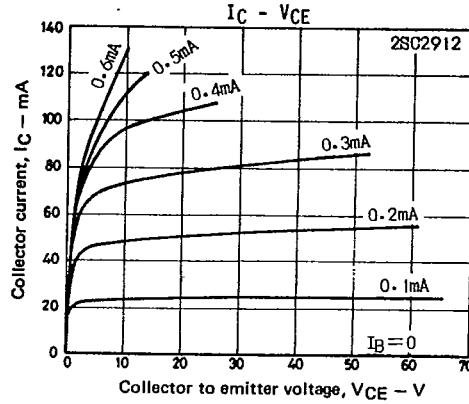
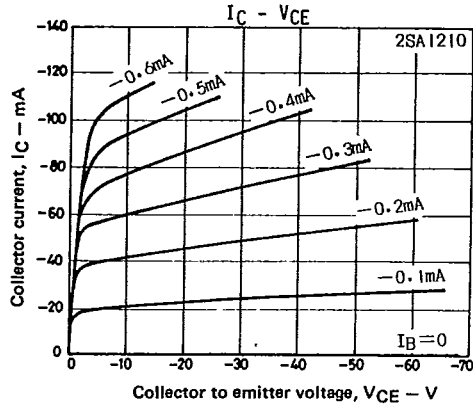
Case Outline 2009A

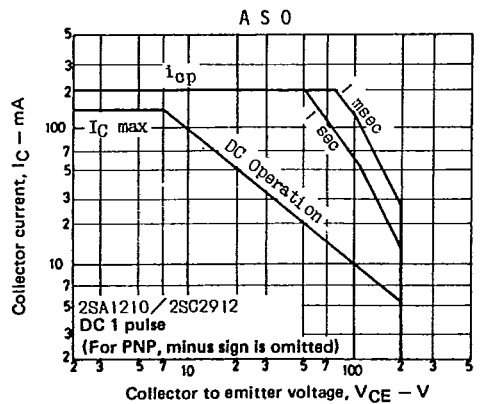
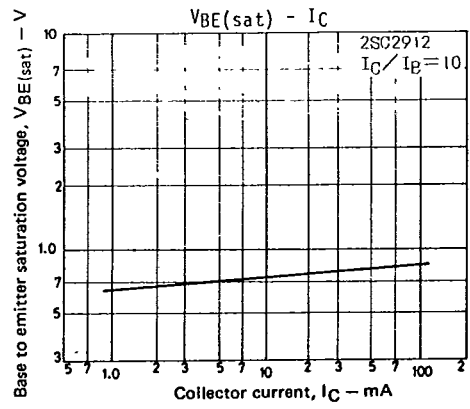
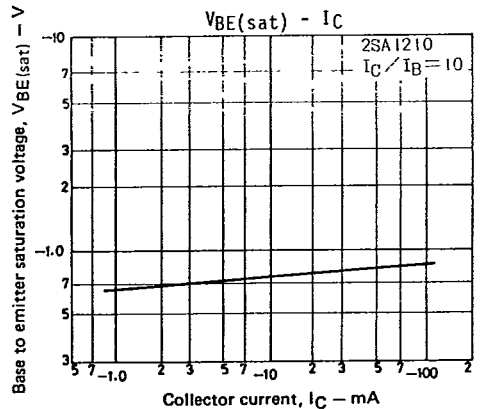
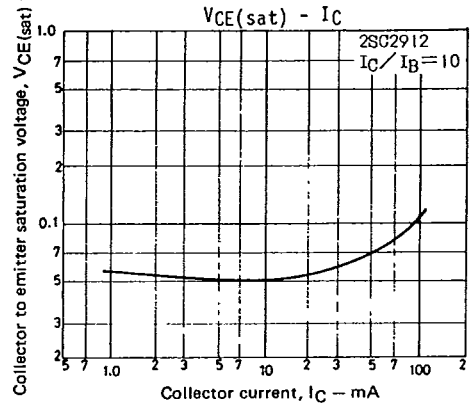
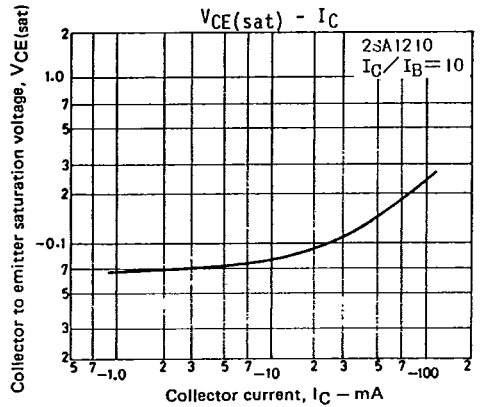
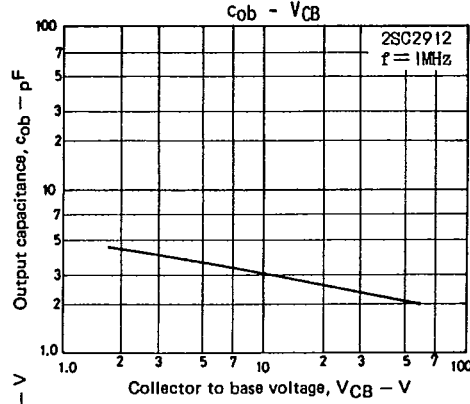
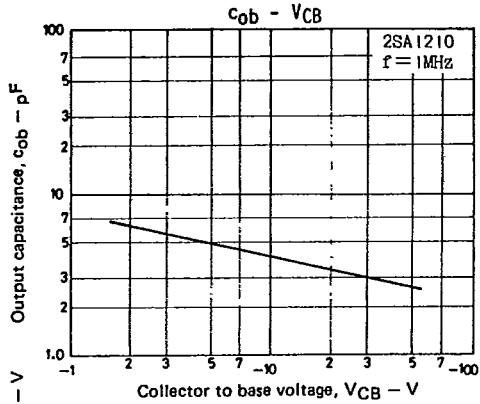
(unit: mm)



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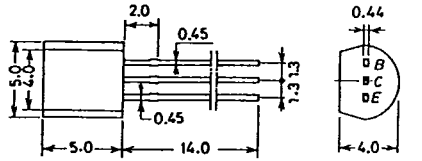
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CASE OUTLINES AND ATTACHMENTS

- All of Sanyo 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

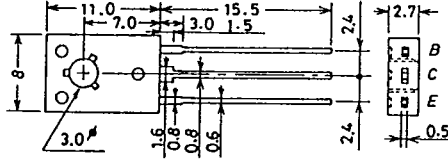


JEDEC: TO-92
EIAJ: SC-43
SANYO: NP

B. Base
C. Collector
E. Emitter

Case Outline-[2009A]

unit:mm

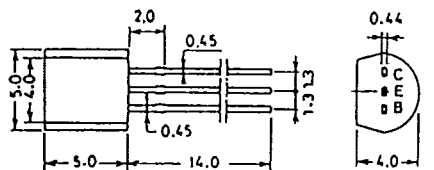


JEDEC: TO-126

B: Base
C: Collector
E: Emitter

Case Outline-[2004A]

unit:mm

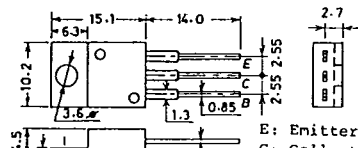


JEDEC: TO-92
EIAJ: SC-43
SANYO: NP

C. Collector
E. Emitter
B. Base

Case Outline-[2010A]

unit:mm

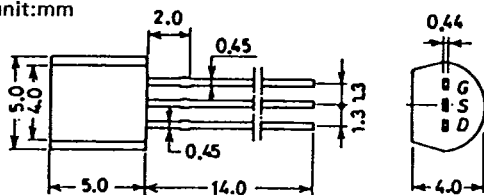


JEDEC: TO-220AB
EIAJ: SC-46

E: Emitter
C: Collector
B: Base

Case Outline-[2005A]

unit:mm

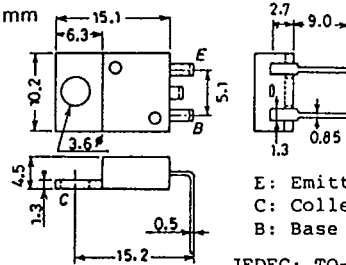


JEDEC: TO-92
EIAJ: SC-43
SANYO: NP

G: Gate
S: Source
D: Drain
B: Base
C: Collector

Case Outline-[2012]

unit:mm

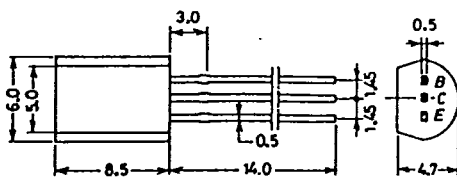


JEDEC: TO-220AA
EIAJ: SC-45

E: Emitter
C: Collector
B: Base

Case Outline-[2006A]

unit:mm

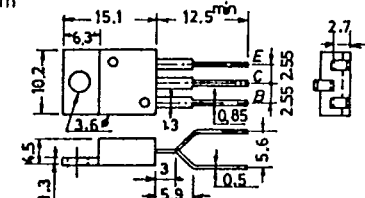


EIAJ: SC-51
SANYO: MP

B: Base
C: Collector
E: Emitter

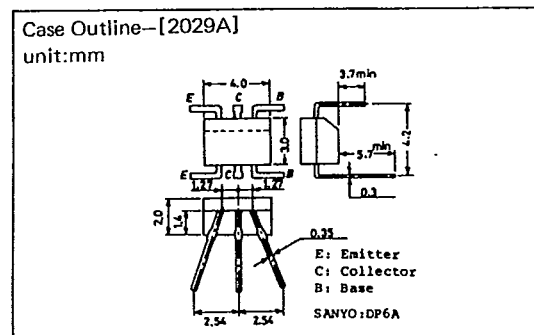
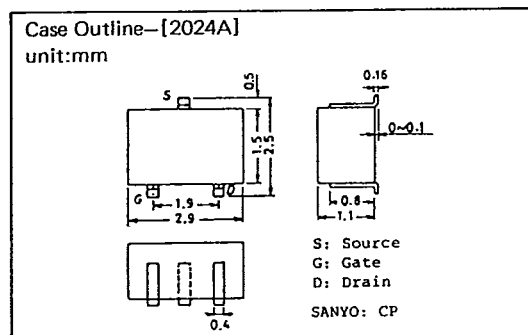
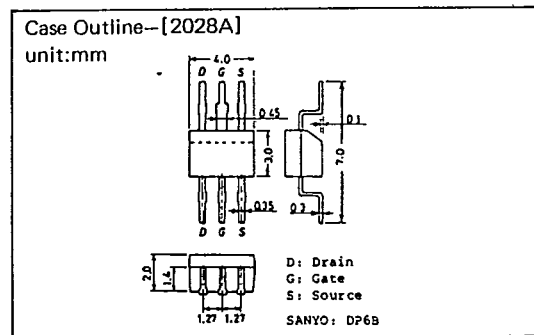
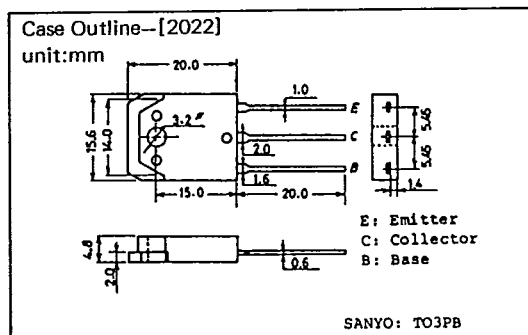
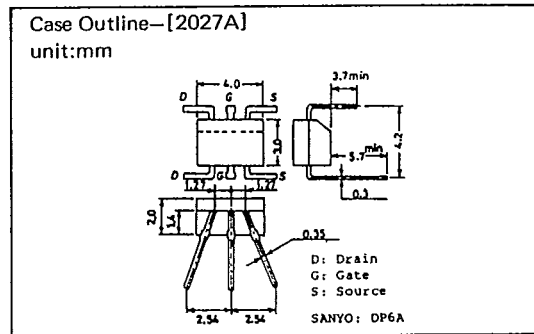
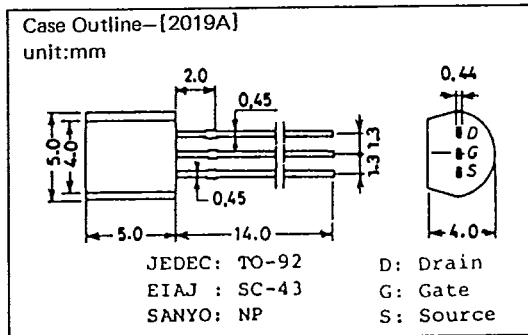
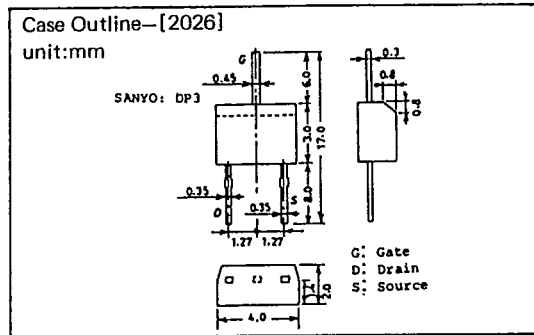
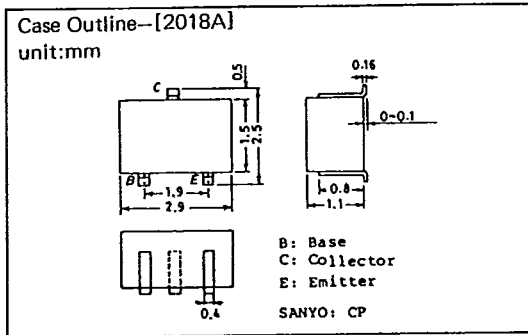
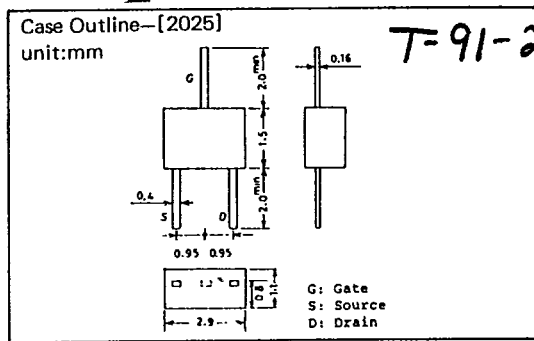
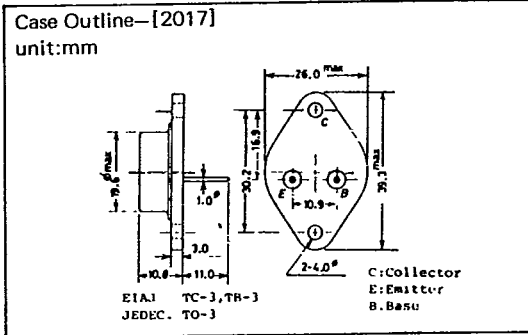
Case Outline-[2013]

unit:mm

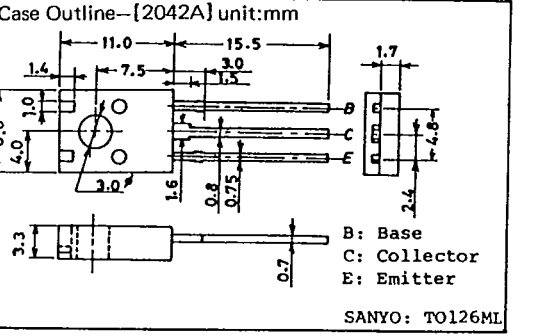
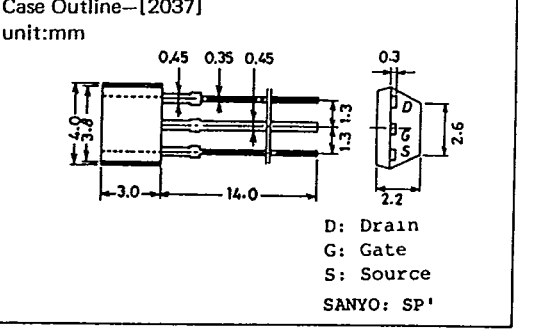
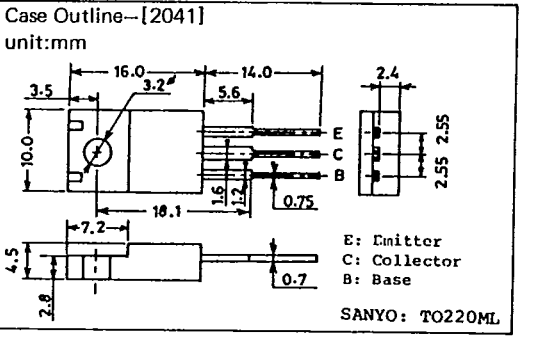
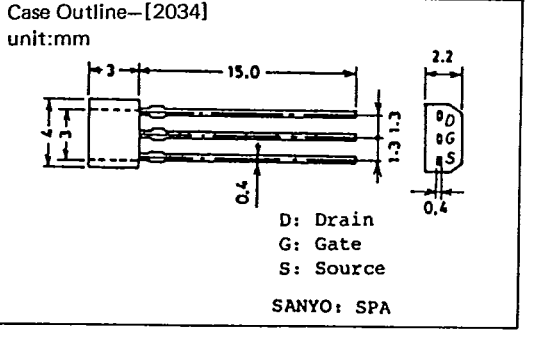
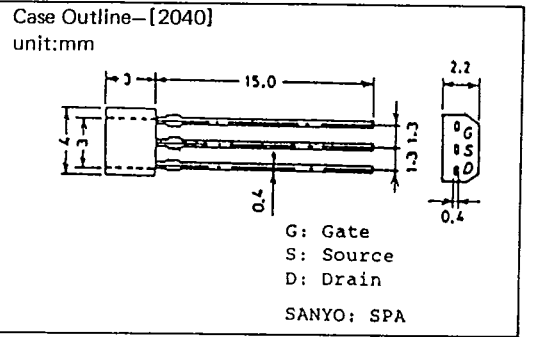
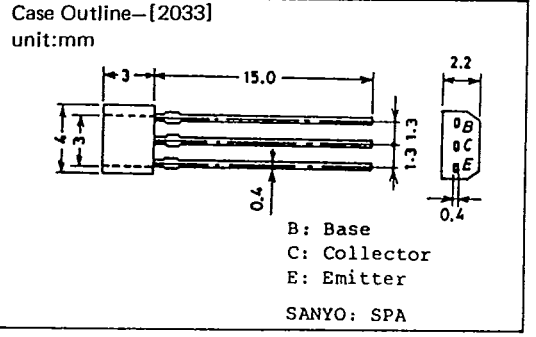
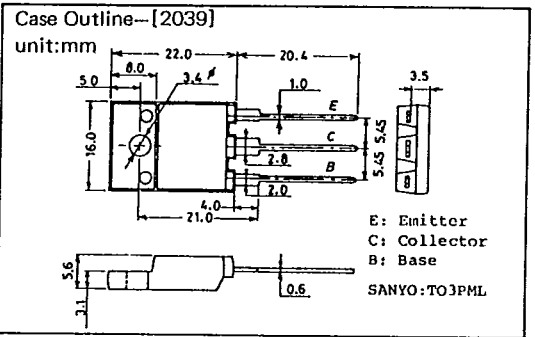
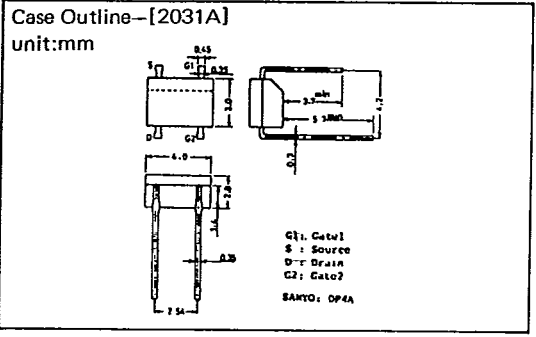
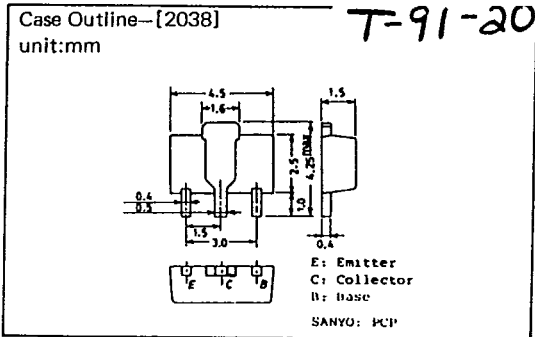
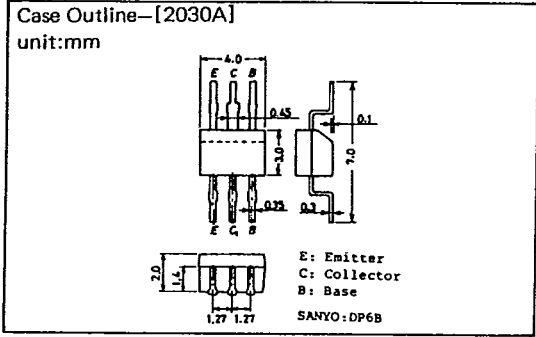


JEDEC TO-220

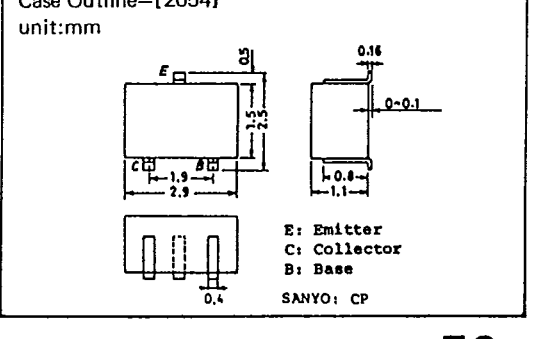
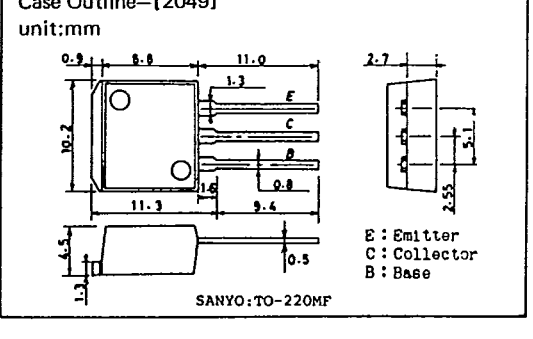
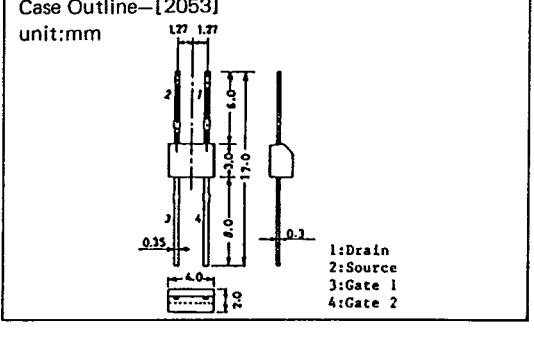
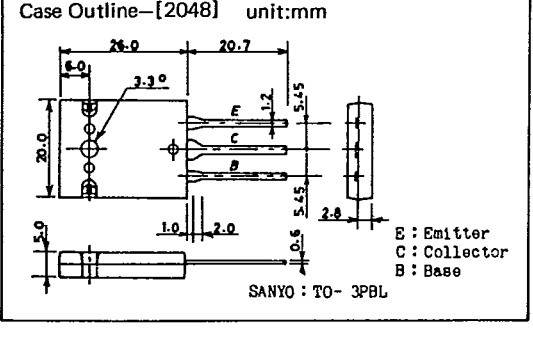
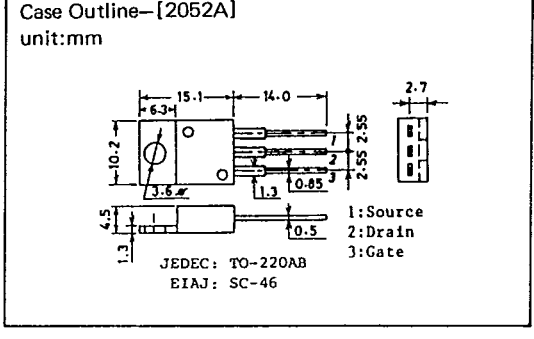
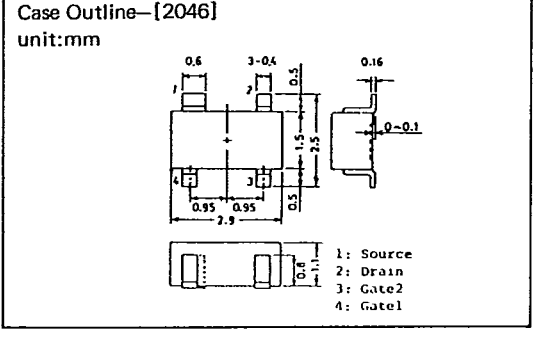
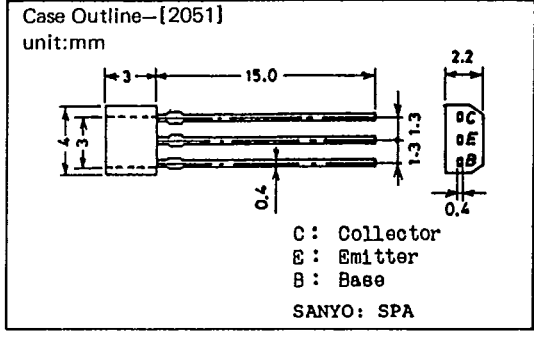
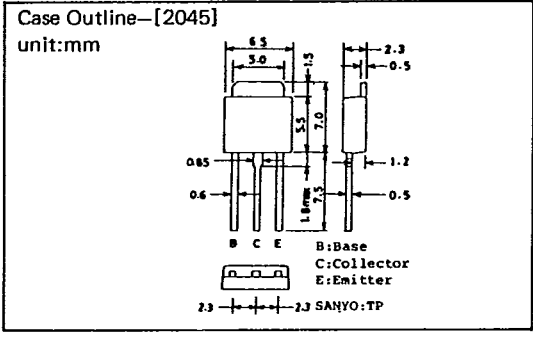
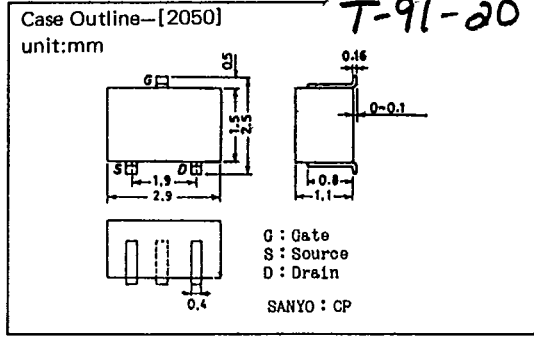
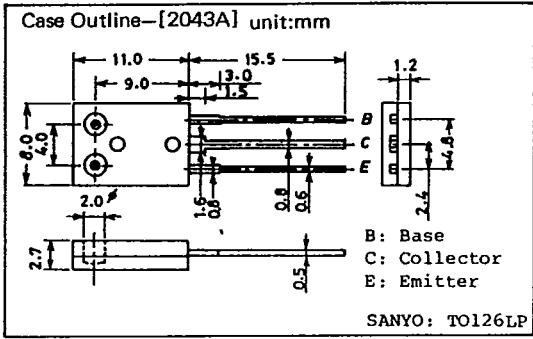
B: Base
C: Collector
E: Emitter



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T-91-20



T-91-20

