

T-27-21

2SA1210



2009A

PNP/NPN Epitaxial Planar Silicon Transistors

2SC2912

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

Parameter	Symbol	Value	unit
Collector to base voltage	VCBO	(-)200	V
Collector to emitter voltage	VCEO	(-)200	V
Emitter to base voltage	VEBO	(-)5	V
Collector current	IC	(-)140	mA
Peak collector current	icp	(-)200	mA
Collector dissipation	PC	1	W
		10	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 ~ +150	°C

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

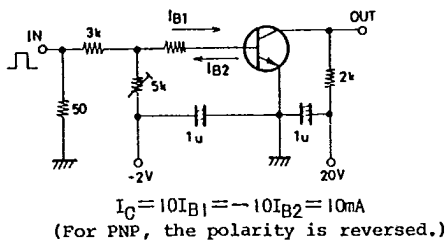
Electrical Characteristics/ $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	min	typ	max	unit
Collector cutoff current	ICBO	VCB = (-)160 V, $I_E = 0$			(-)0.1	μA
Emitter cutoff current	IEBO	VEB = (-)4 V, $I_C = 0$			(-)0.1	μA
Common emitter DC current gain	h_{FE}	VCE = (-)5 V, $I_C = (-) 10 \text{ mA}$	100*		400*	
Gain band-width product	fT	VCE = (-)10 V, $I_C = (-) 10 \text{ mA}$		150		MHz
Common base output capacitance	cob	VCB = (-)10 V, $f = 1 \text{ MHz}$		(4.0)		pF
				3.0		
Collector to emitter saturation voltage	VCE(sat)	$I_C = (-)50 \text{ mA}$, $I_B = (-)5 \text{ mA}$	(-0.14)	(-0.4)		V
			0.07	0.3		
Turn-on time	Ton	At specified test circuit		0.1		μs
Storage time	tstg	At specified test circuit		1.5		μs
Fall time	tf	At specified test circuit		0.1		μs

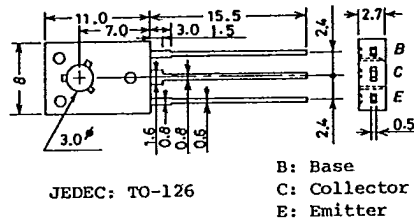
*: The 2SA1210/2SC2912 are classified by 10 mA h_{FE} as follows:

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



Case Outline 2009A (unit: mm)

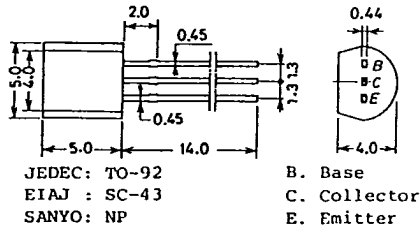


For details, refer to the description of the 2SC2912.

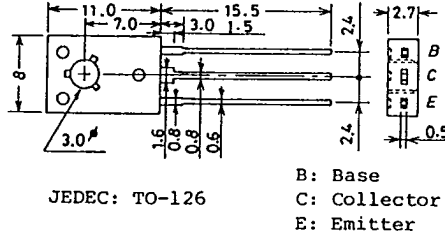
CASE OUTLINES AND ATTACHMENTS

- 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.

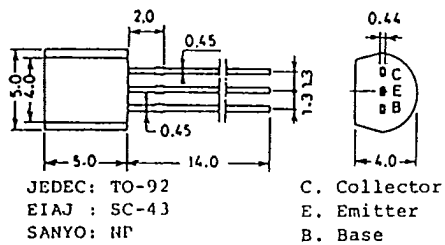
Case Outline-[2003A]
unit:mm



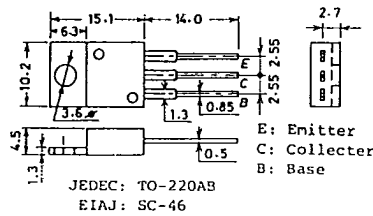
Case Outline-[2009A]
unit:mm



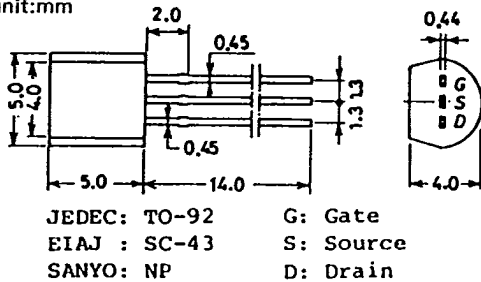
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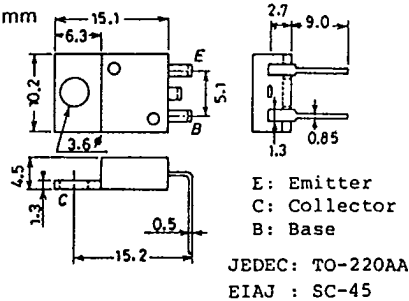
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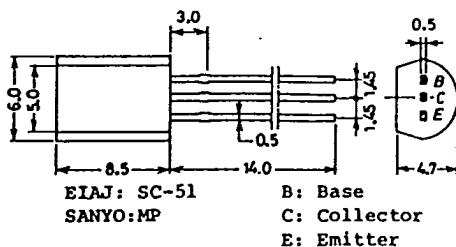
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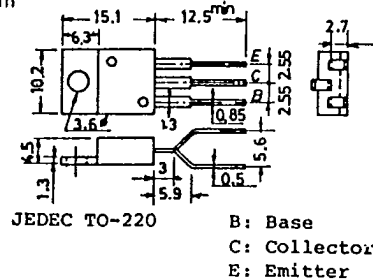
Case Outline-[2012]
unit:mm

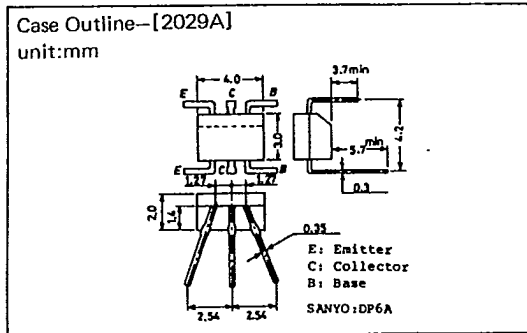
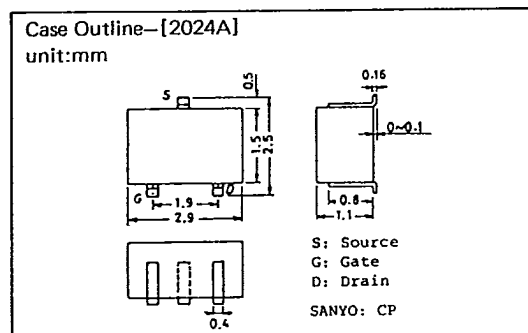
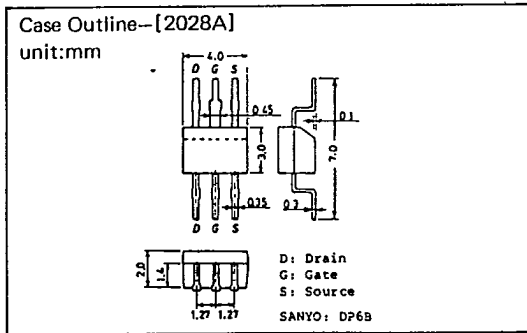
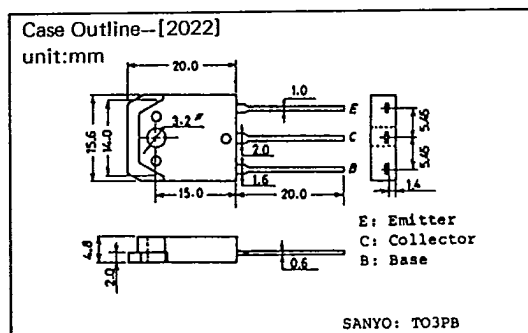
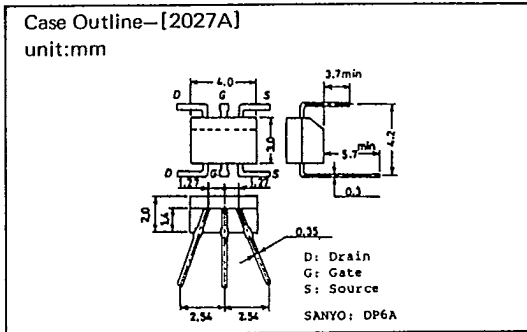
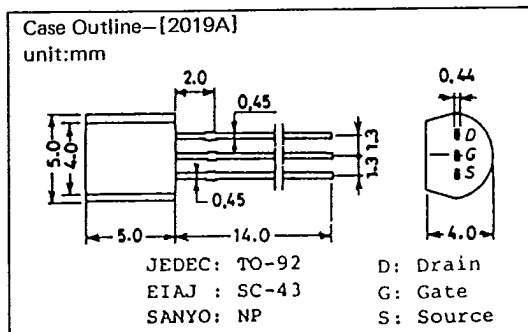
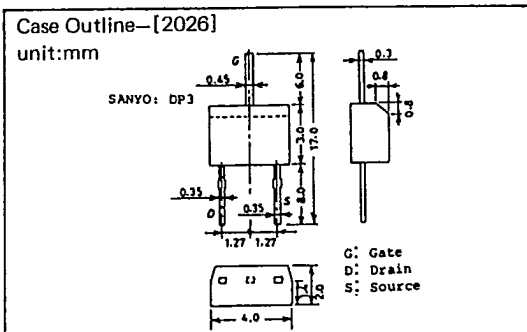
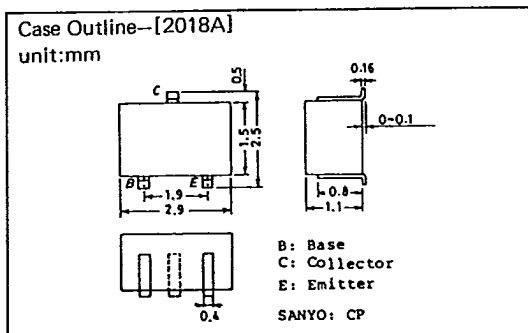
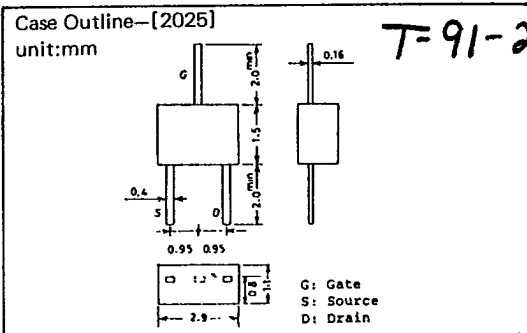
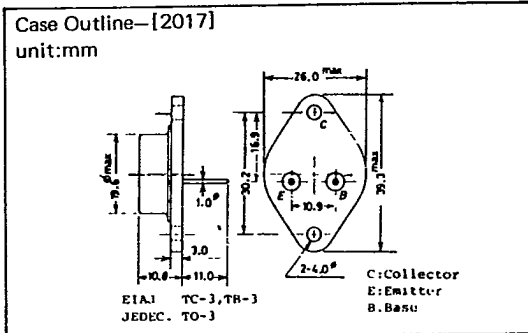


Case Outline-[2006A]
unit:mm

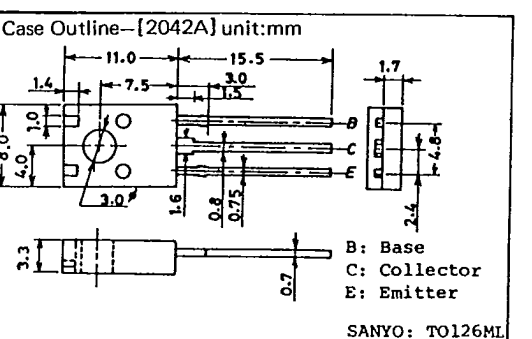
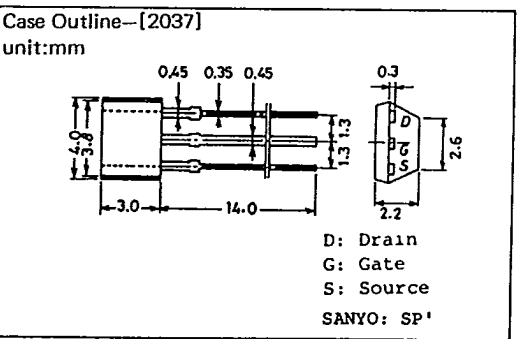
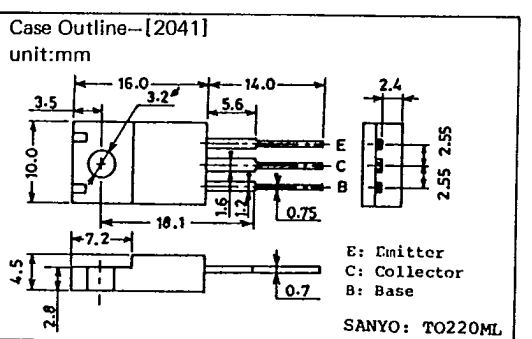
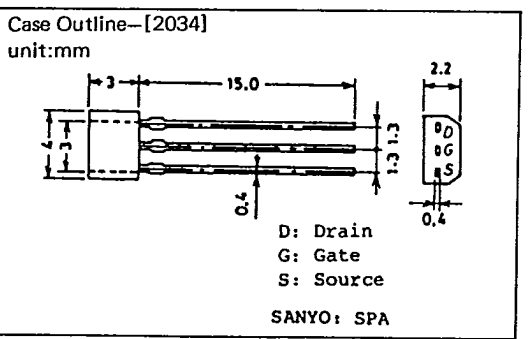
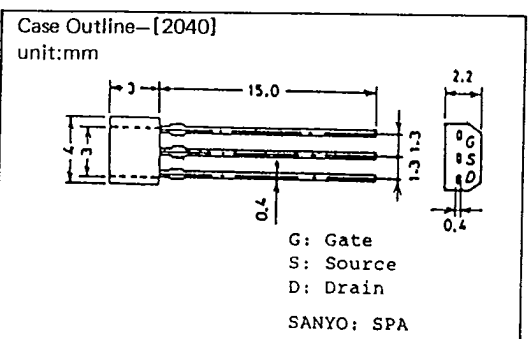
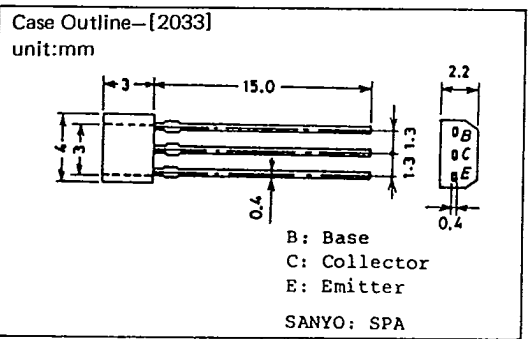
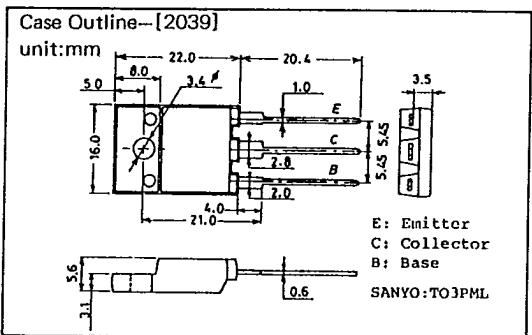
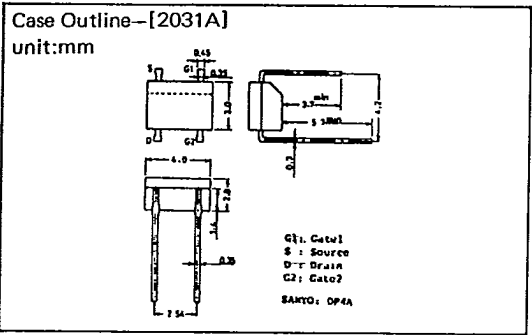
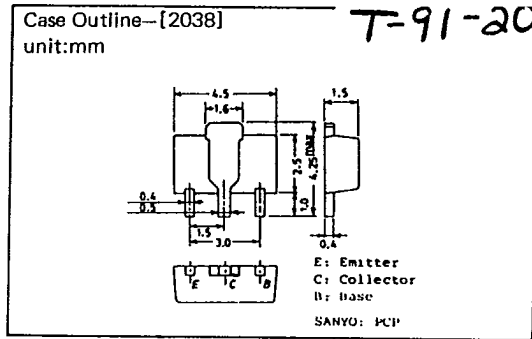
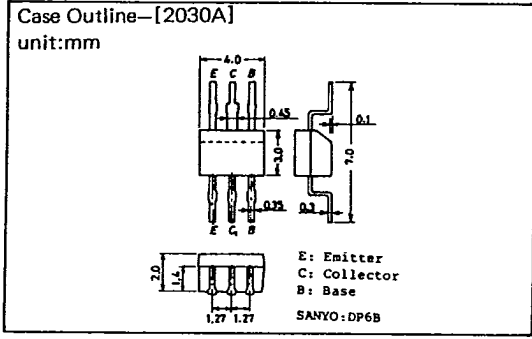


Case Outline-[2013]
unit:mm

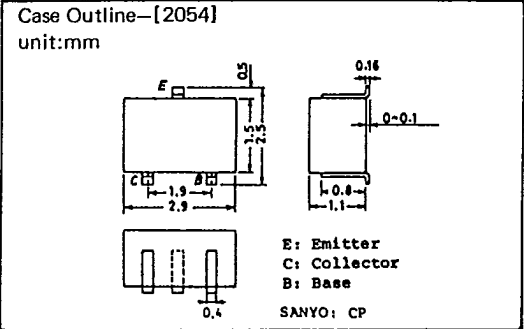
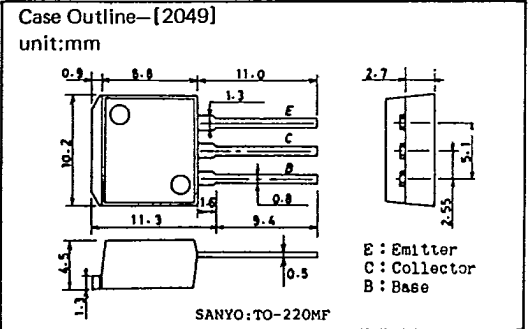
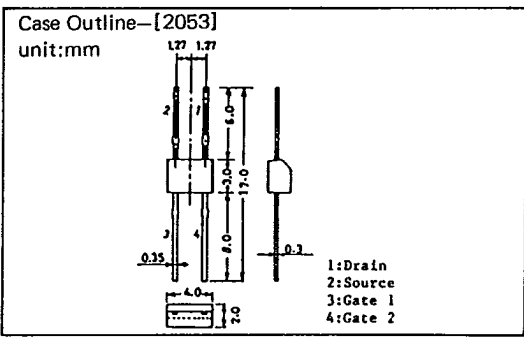
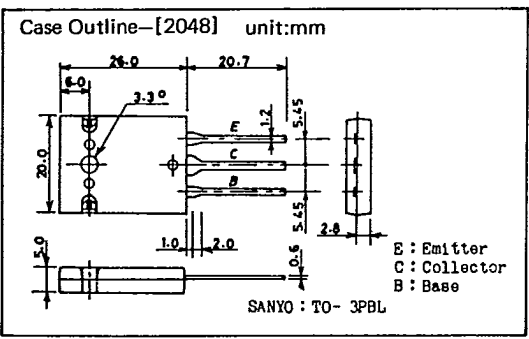
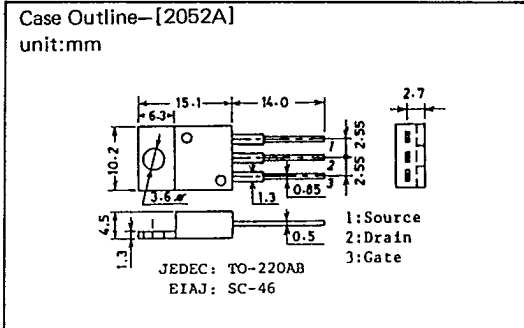
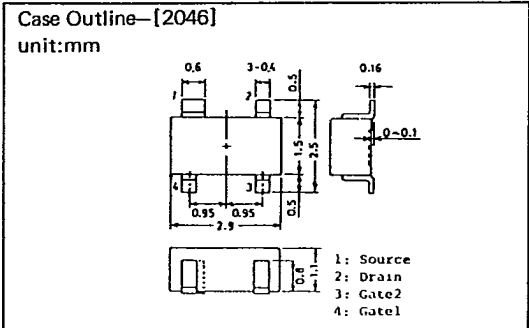
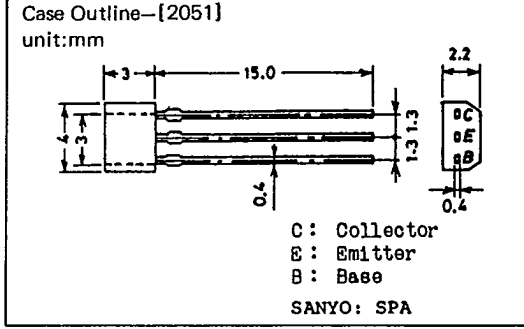
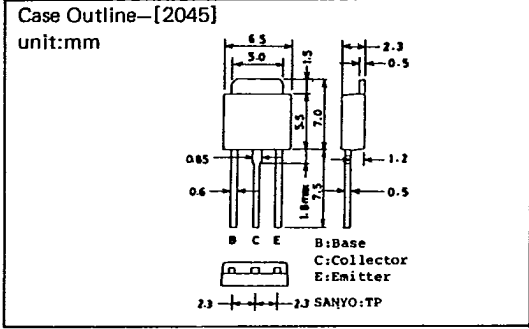
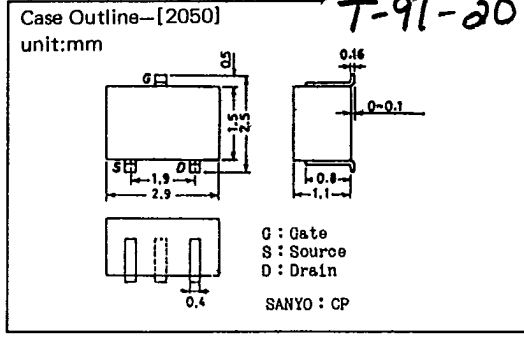
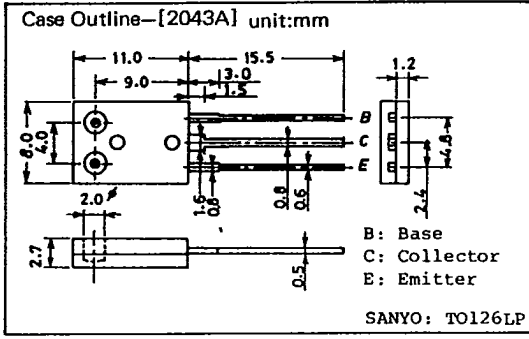


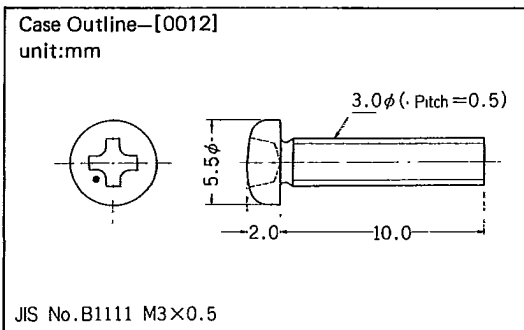
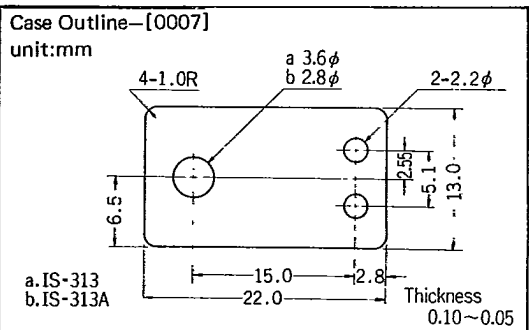
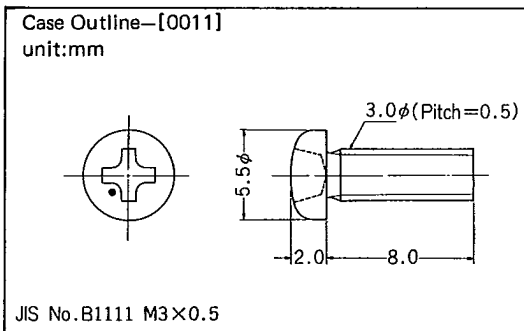
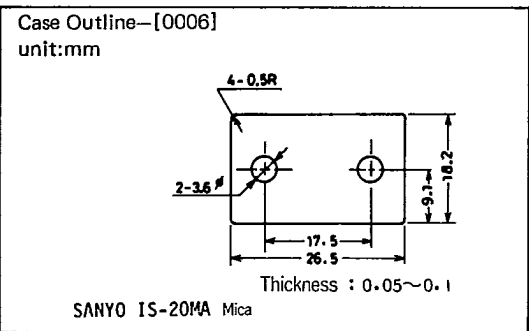
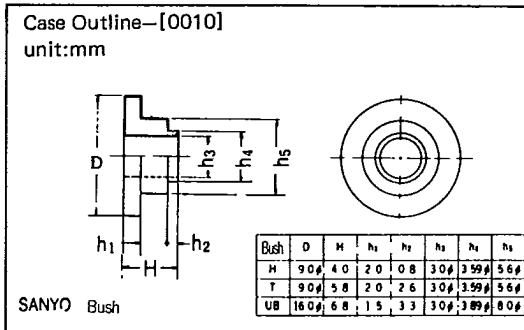
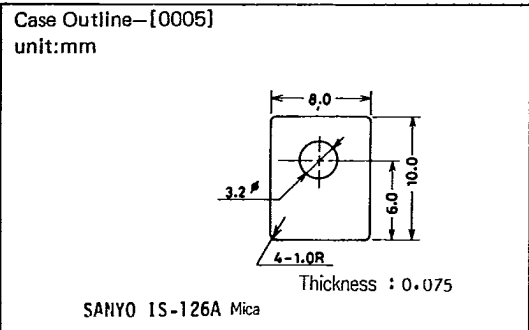
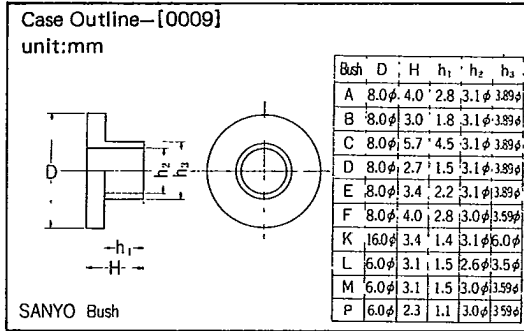
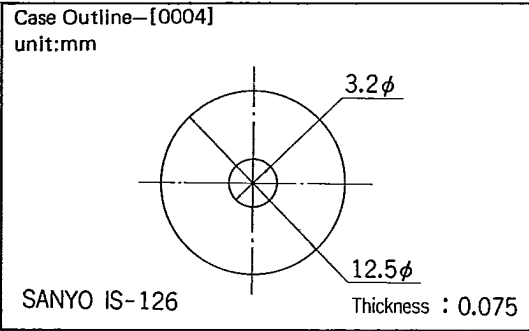
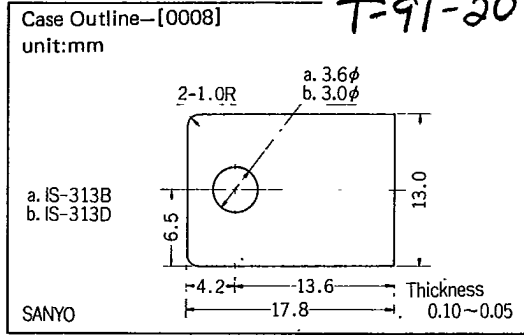
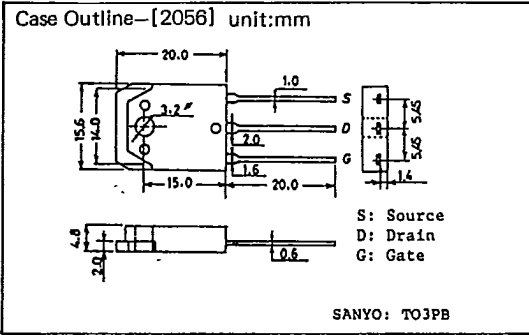


T-91-20

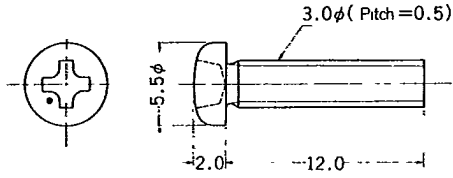


T-91-20



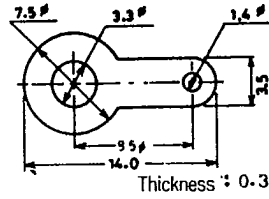


Case Outline-[0013]
unit:mm



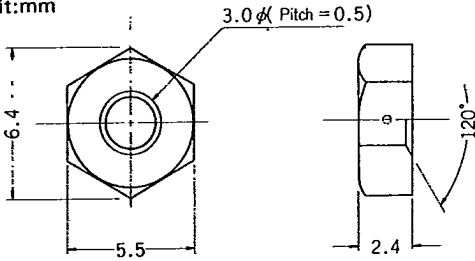
JIS No. B1111 M3×0.5

Case Outline-[0018]
unit:mm



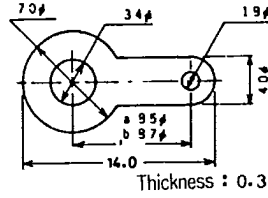
SANYO Lug 1.4

Case Outline-[0014]
unit:mm



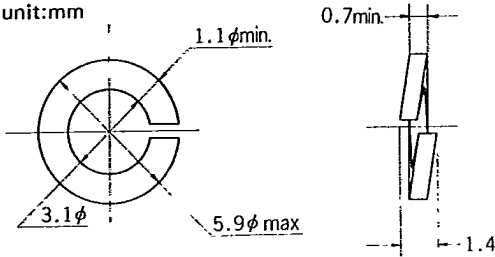
JIS No. B1181 M3×0.5

Case Outline-[0019]
unit:mm



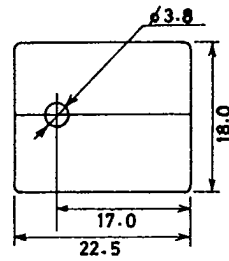
SANYO Lug 1.8φ

Case Outline-[0015]
unit:mm



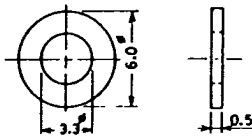
JIS No. B 1251 Spring washer (M3)

Case Outline-[0020]
unit:mm



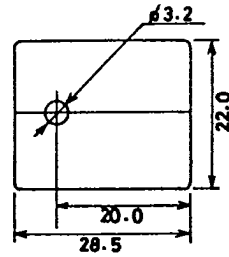
SANYO IS-3MP Mica

Case Outline-[0016]
unit:mm



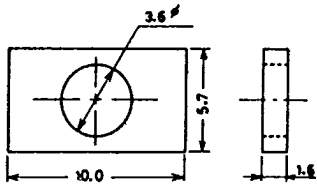
JIS No. B1252 Flat washer

Case Outline-[0021]
unit:mm



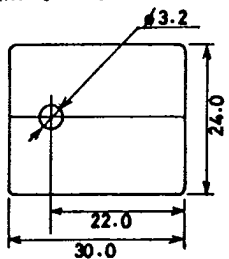
SANYO IS-MPC Mica

Case Outline-[0017]
unit:mm



JIS No. G3141 Rectangular washer

Case Outline-[0022]
unit:mm



SANYO IS-3PBL Mica