

**2SC1570,
1571,
1571L**



2003A

NPN Epitaxial Planar Silicon Transistors

T-29-15

Very Low Noise Amp Applications

©431D

The 2SC1570, 1571, 1571L are developed as very low-noise transistors and are especially suited for use in equalizer first stage of high-grade type stereo sets.

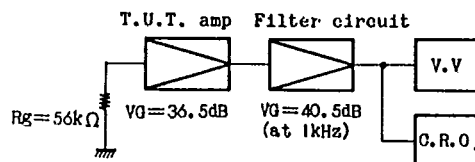
Absolute Maximum Ratings at Ta=25°C		2SC1570	2SC1571	2SC1571L	unit
Collector to Base Voltage	V _{CB0}	55	40	40	V
Collector to Emitter Voltage	V _{CE0}	50	35	35	V
Emitter to Base Voltage	V _{EB0}		5		V
Collector Current	I _C		100		mA
Allowable Power Dissipation	P _C		200		mW
Junction Temperature	T _J		125		°C
Storage Temperature	T _{stg}	-55 to +150			°C

Electrical Characteristics at Ta=25°C		min	typ	max	unit
Collector Cutoff Current	I _{CB0} V _{CB} =18V, I _E =0			0.1	uA
Emitter Cutoff Current	I _{EB0} V _{EB} =3V, I _C =0			0.1	uA
DC Current Gain	h _{FE} V _{CE} =6V, I _C =1mA	160*		960*	
Gain Bandwidth Product	f _T V _{CE} =6V, I _C =1mA		100		MHz
Output Capacitance	c _{ob} V _{CB} =6V, f=1MHz		3		pF
C-E Saturation Voltage	V _{CE(sat)} I _C =50mA, I _B =5mA			0.5	V
Base to Emitter Voltage	V _{BE} V _{CE} =2V, I _C =1mA	0.58	0.80		V
C-B Breakdown Voltage	V _{(BR)CBO} I _C =10uA, I _B =0				V
	" [C1570]			55	V
	" [C1571, 1571L]			40	V
C-E Breakdown Voltage	V _{(BR)CEO} I _C =1mA, R _{BE} =∞				V
	" [C1570]			50	V
	" [C1571, 1571L]			35	V
E-B Breakdown Voltage	V _{(BR)EBO} I _E =10uA, I _C =0			5	V
Noise Voltage	at test circuit [C1570, 1571]			40	mV
	V _{CC} =30V, I _C =1mA [C1571L]			65	mV
	R _g =56kohm, V _G =77dB				
	(at 1kHz)				
Noise Peak Level	" [C1570, 1571]			280	mV
	" [C1571L]			450	mV

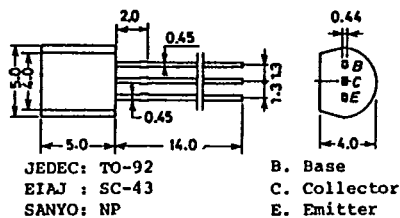
*:The 2SC1570, 1571, 1571L are classified by 1mA h_{FE} as follows:

160	F	320	280	G	560	480	H	960
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Noise Test Circuit

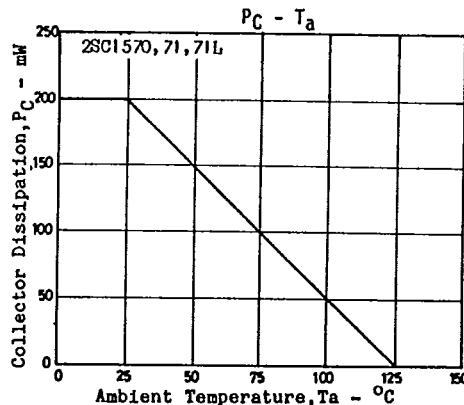
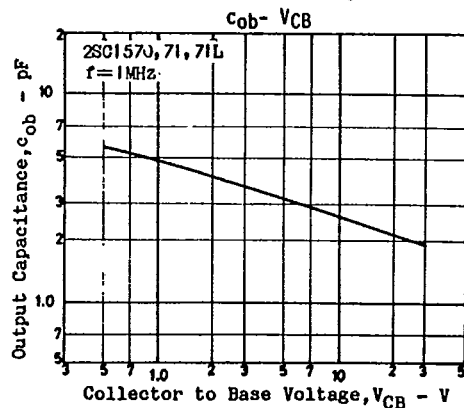
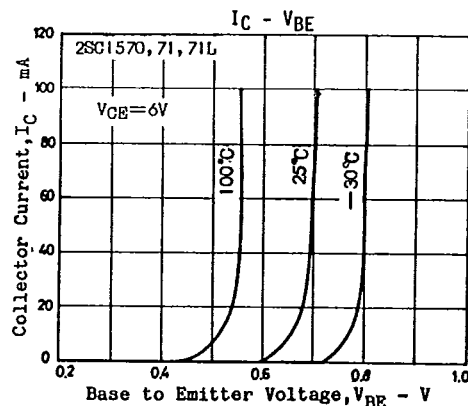
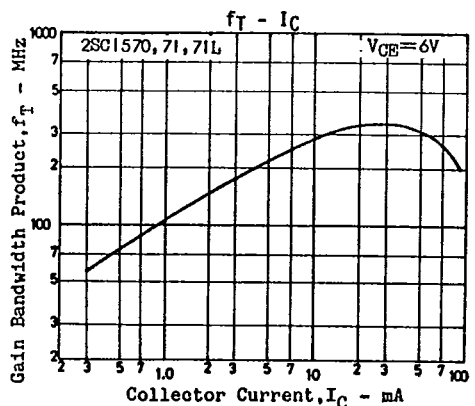
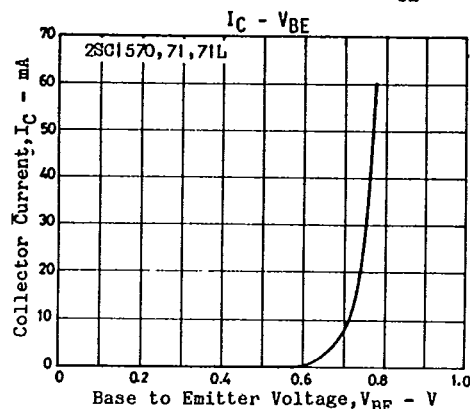
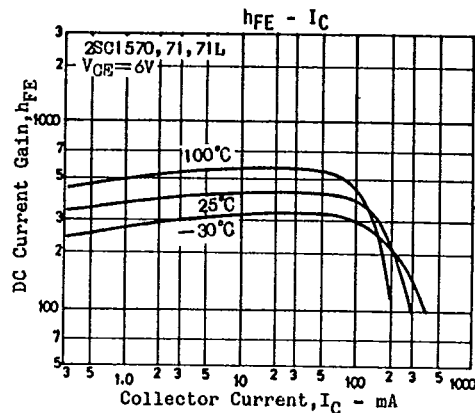
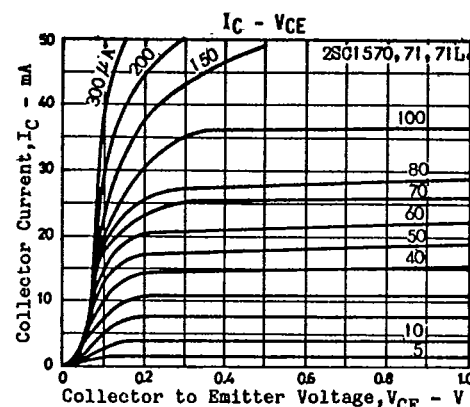
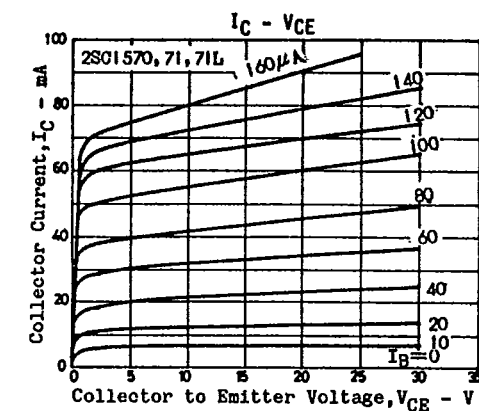


Case Outline 2003A (unit:mm)



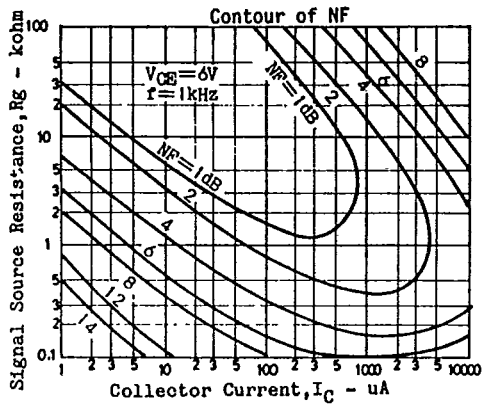
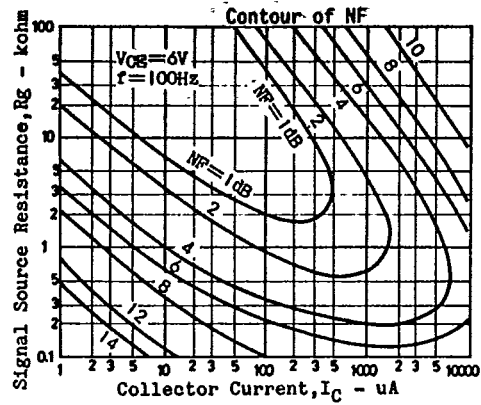
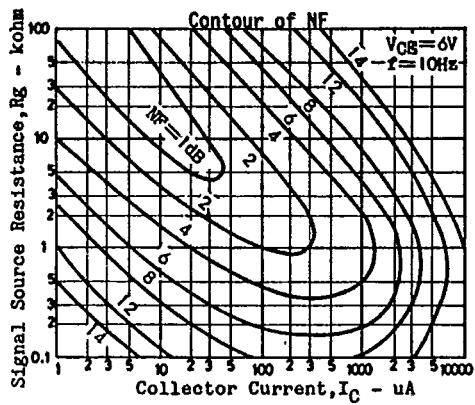
2SC1570, 1571, 1571L

(T-29-15)



2SC1570, 1571, 1571L

(T-29-15)



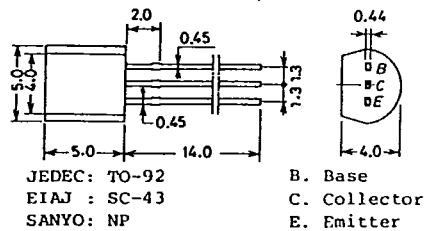
T-91-20

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.

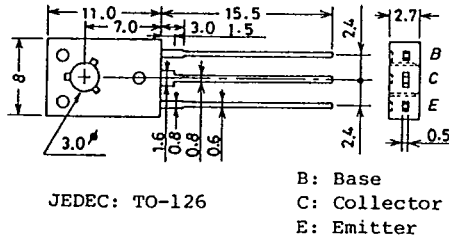
Case Outline—[2003A]

unit:mm



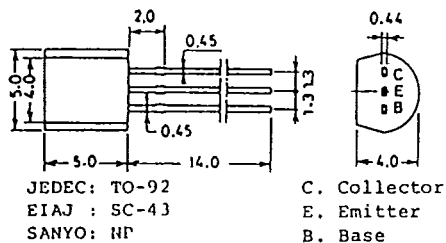
Case Outline—[2009A]

unit:mm



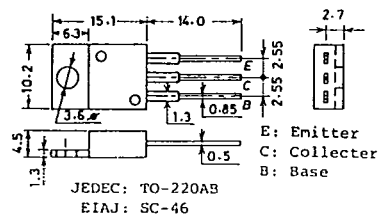
Case Outline—[2004A]

unit:mm



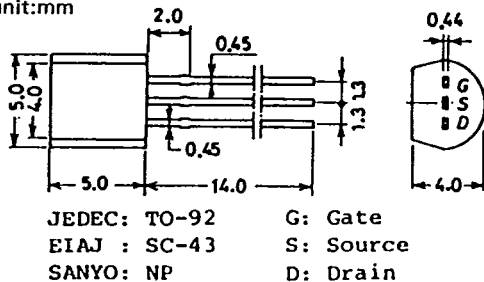
Case Outline—[2010A]

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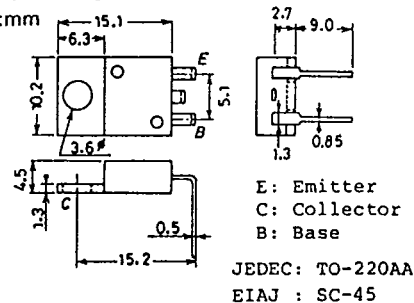
Case Outline—[2005A]

unit:mm



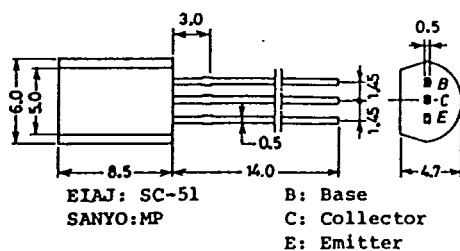
Case Outline—[2012]

unit:mm



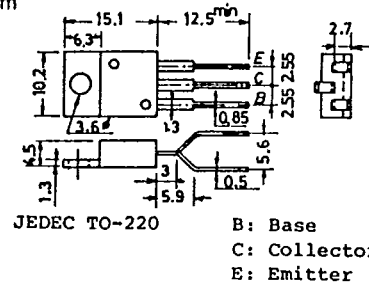
Case Outline—[2006A]

unit:mm

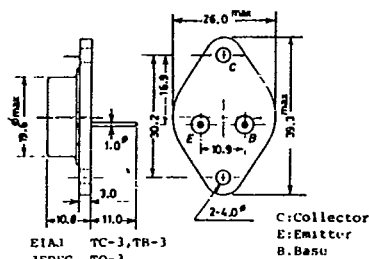


Case Outline—[2013]

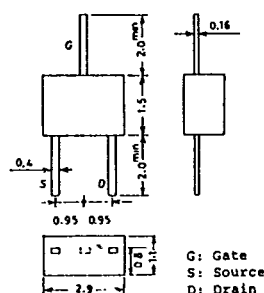
unit:mm



unit:mm

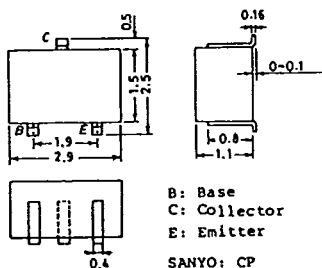


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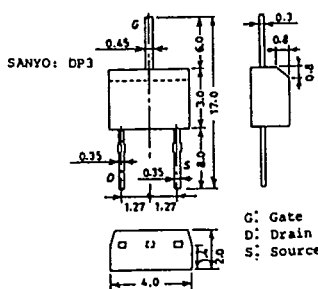


T-91-20

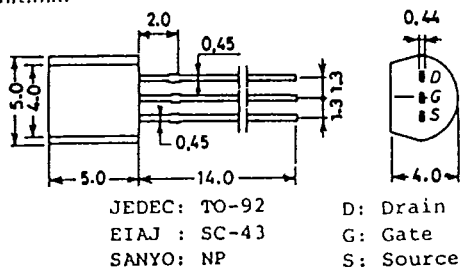
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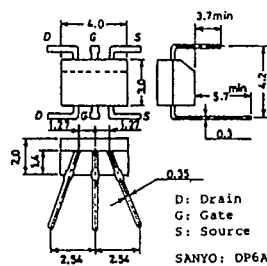
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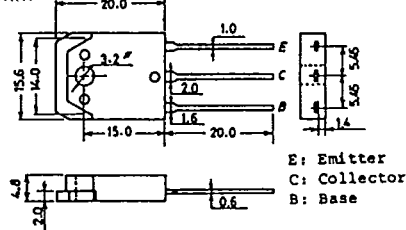
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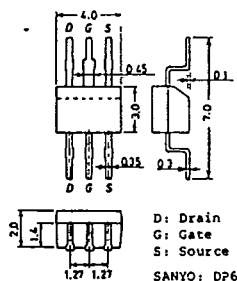
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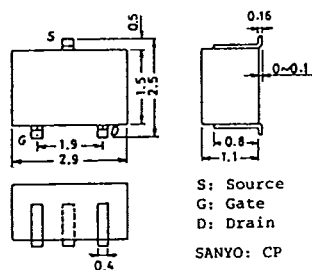
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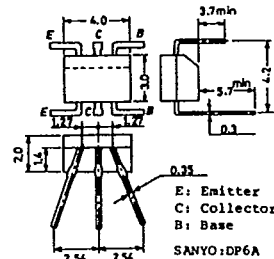
unit:mm



unit:mm



unit:mm



E: Emitter
C: Collector
B: Base
SANYO: DP6B

E: Emitter
C: Collector
B: Base

G1: Cat1
\$: Source
D-r Drain
G2: Gate2
SANYO: OP4A

E: Emitter
C: Collector
B: Base

SANYO:TO3PML

B: Base
C: Collector
E: Emitter
SANYO: SPA

G: Gate
S: Source
D: Drain
SANYO: SPA

D: Drain
G: Gate
S: Source
SANYO: SPA

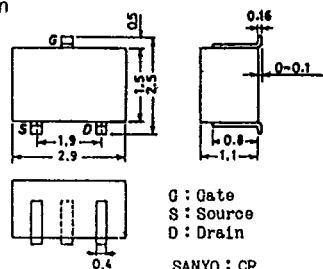
SANYO: TO220ML

D: Drain
G: Gate
S: Source
SANYO: SP'

SANYO: TO126ML

T-91-20

unit:mm

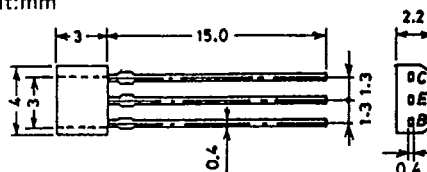


SANYO: TO126LP

G : Gate
S : Source
D : Drain

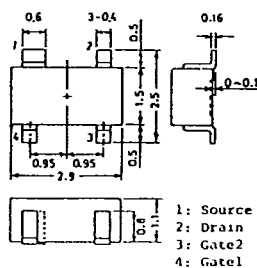
SANYO : CP

unit:mm



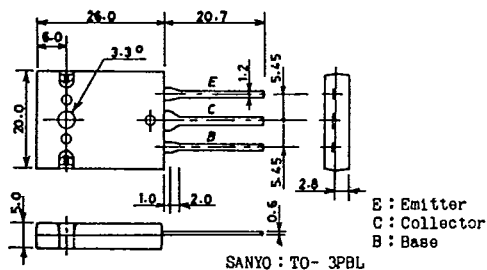
C : Collector
E : Emitter
B : Base
SANYO: SPA

unit:mm

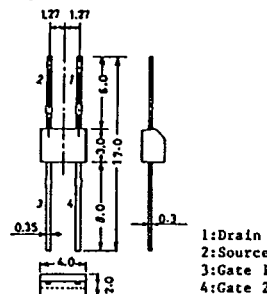


JEDEC: TO-220AB
EIAJ: SC-46

unit:mm

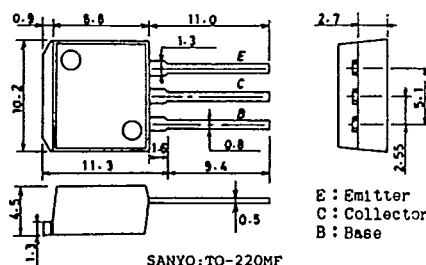


SANYO : TO- 3PBL

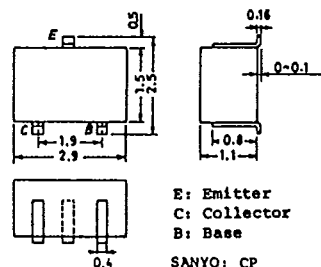


1: Drain
2: Source
3: Gate 1
4: Gate 2

unit:mm



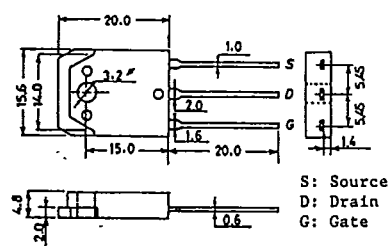
SANYO:TO-220MF



E: Emitter
C: Collector
B: Base

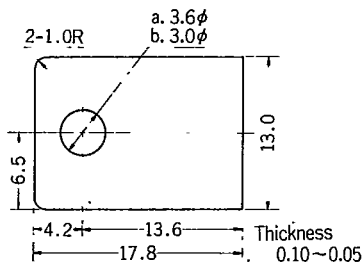
SANYO: CP

Case Outline—[2056] unit:mm



SANYO: TO3PB

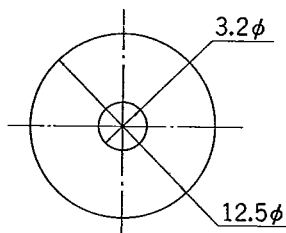
Case Outline—[0008] unit:mm

a. IS-313B
b. IS-313D

SANYO

Case Outline—[0004] unit:mm

unit:mm

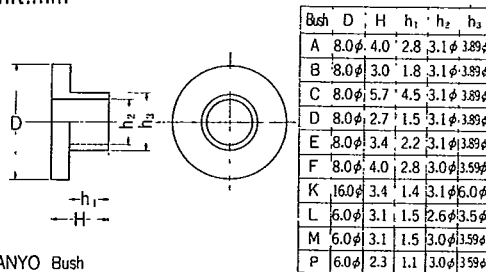


SANYO IS-126

Thickness : 0.075

Case Outline—[0009] unit:mm

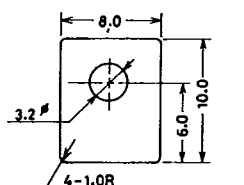
unit:mm



SANYO Bush

Case Outline—[0005] unit:mm

unit:mm

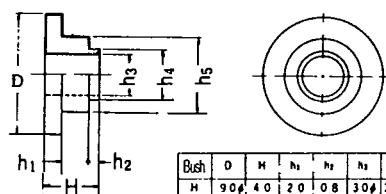


Thickness : 0.075

SANYO IS-126A Mica

Case Outline—[0010] unit:mm

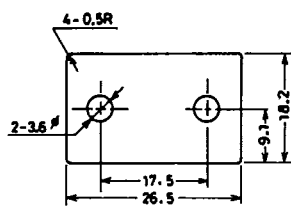
unit:mm



SANYO Bush

Case Outline—[0006] unit:mm

unit:mm

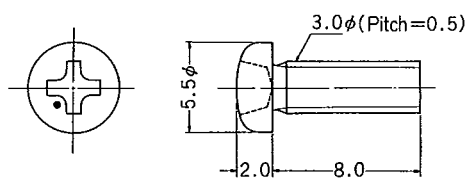


Thickness : 0.05~0.1

SANYO IS-20MA Mica

Case Outline—[0011] unit:mm

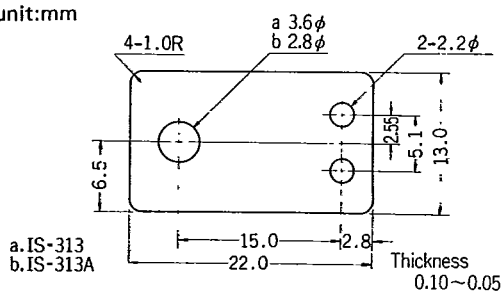
unit:mm



JIS No. B1111 M3×0.5

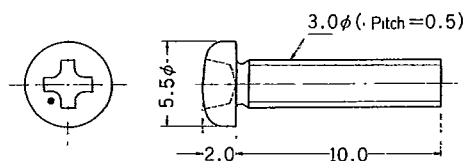
Case Outline—[0007] unit:mm

unit:mm



Case Outline—[0012] unit:mm

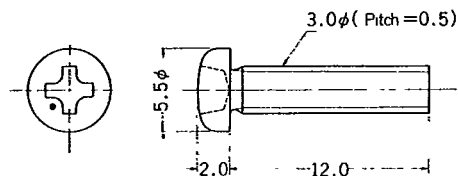
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JIS No. B1111 M3×0.5

Case Outline—[0013]

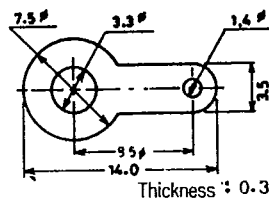
unit:mm



JIS No. B1111 M3×0.5

Case Outline—[0018]

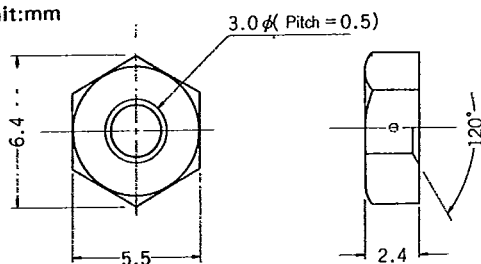
unit:mm



SANYO Lug 1.4

Case Outline—[0014]

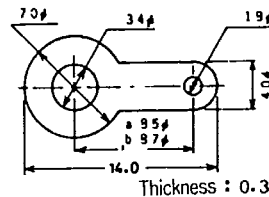
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JIS No. B1181 M3×0.5

Case Outline—[0019]

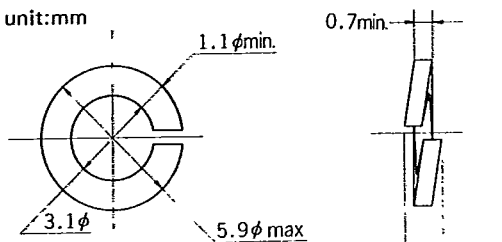
unit:mm



SANYO Lug 1.8φ

Case Outline—[0015]

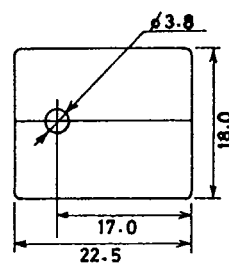
unit:mm



JIS No. B 1251 Spring washer (M3)

Case Outline—[0020]

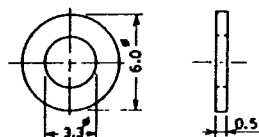
unit:mm



SANYO IS-3MP Mica

Case Outline—[0016]

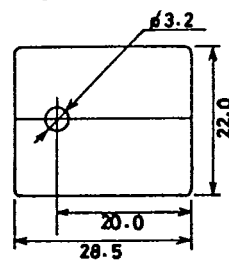
unit:mm



JIS No. B1252 Flat washer

Case Outline—[0021]

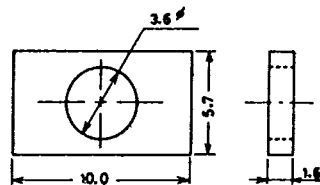
unit:mm



SANYO IS-MPC Mica

Case Outline—[0017]

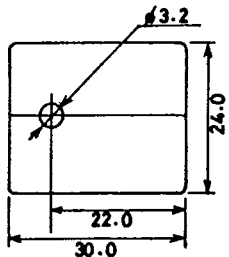
unit:mm



JIS No. G3141 Rectangular washer

Case Outline—[0022]

unit:mm



SANYO IS-3PBL Mica