

2SC1570, 1571, 1571L



2003A

NPN Epitaxial Planar Silicon Transistors

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.

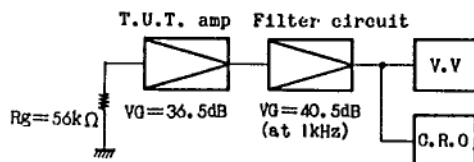
Absolute Maximum Ratings at Ta=25°C		2SC1570	2SC1571	2SC1571L	unit
Collector to Base Voltage	V _{CB0}	55	40	40	V
Collector to Emitter Voltage	V _{CE0}	50	35	35	V
Emitter to Base Voltage	V _{EB0}		5		V
Collector Current	I _C		100		mA
Allowable Power Dissipation	P _C		200		mW
Junction Temperature	T _J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

Electrical Characteristics at Ta=25°C		min	typ	max	unit
Collector Cutoff Current	I _{CBO} V _{CB} =18V, I _E =0			0.1	uA
Emitter Cutoff Current	I _{EBO} 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)CB0} I _C =10uA, I _B =0				V
		[C1570] 55			
		[C1571, 1571L] 40			
C-E Breakdown Voltage	V _{(BR)CE0} I _C =1mA, R _{BE} =∞				V
		[C1570] 50			
		[C1571, 1571L] 35			
E-B Breakdown Voltage	V _{(BR)EB0} I _E =10uA, I _C =0				V
Noise Voltage	at test circuit [C1570, 1571] V _{CE} =30V, I _C =1mA [C1571L] R _g =56kohm, V _G =77dB (at 1kHz)				
				40	mV
				65	mV
Noise Peak Level					
				280	mV
				450	mV

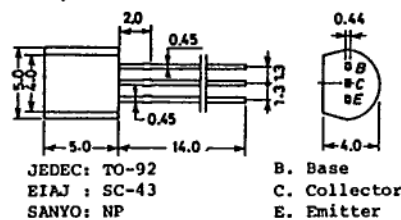
*:The 2SC1570, 1571, 1571L are classified by 1mA h_{FE} as follows:

160	F	320	280	G	560	480	H	960
-----	---	-----	-----	---	-----	-----	---	-----

Noise Test Circuit

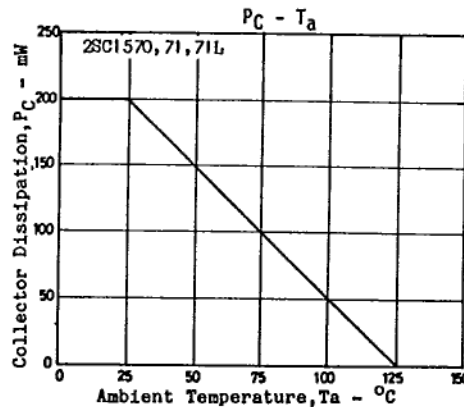
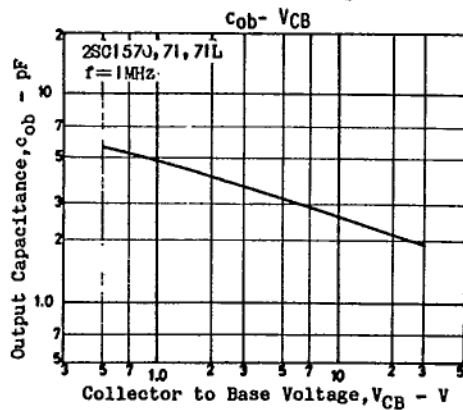
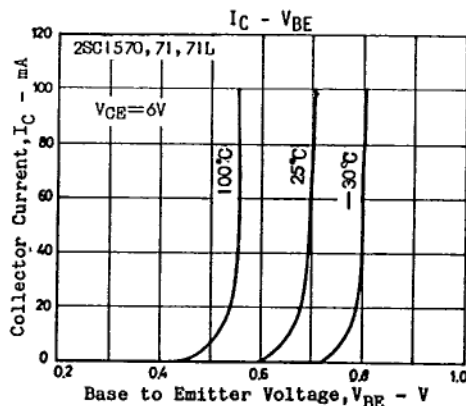
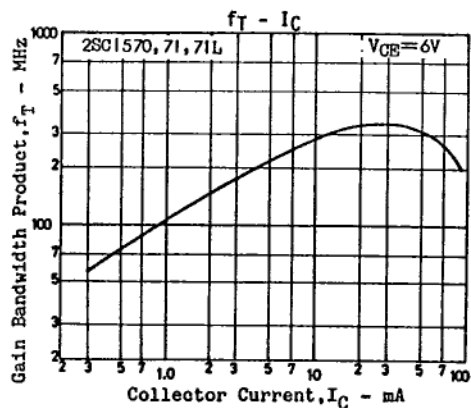
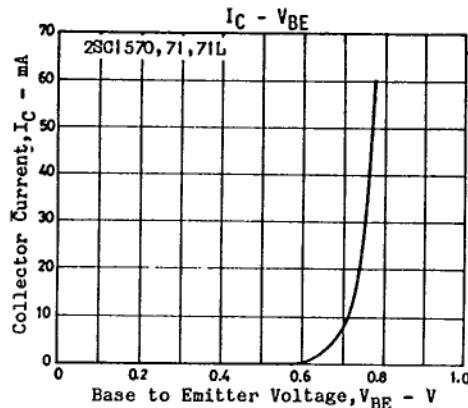
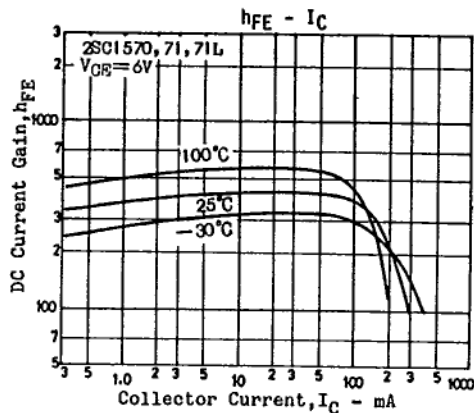
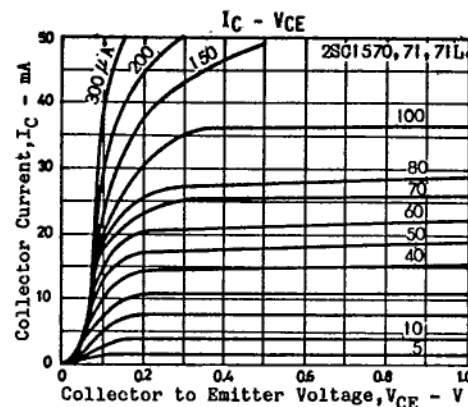
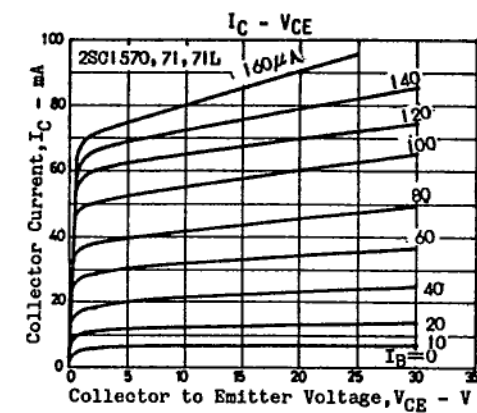


Case Outline 2003A (unit:mm)



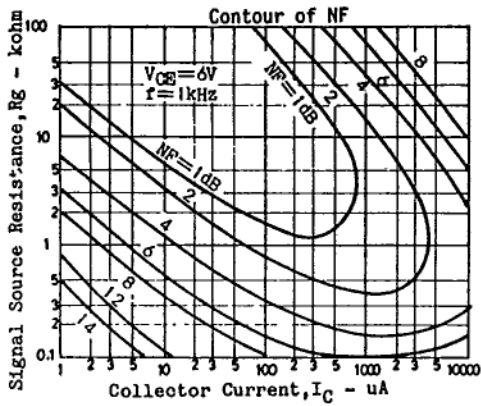
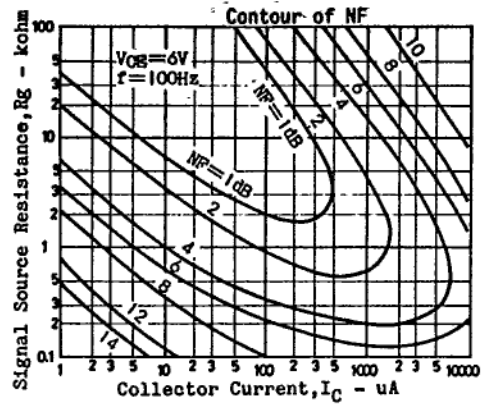
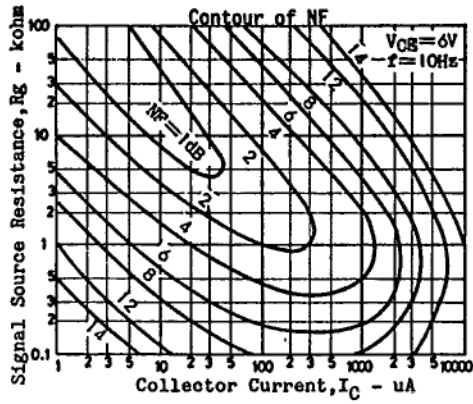
2SC1570, 1571, 1571L

(T-29-15)



2SC1570, 1571, 1571L

(T-29-15)

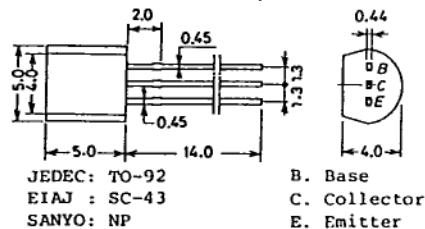


CASE OUTLINES AND ATTACHMENTS

- 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

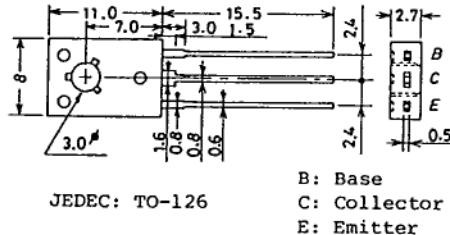


JEDEC: TO-92
EIAJ : SC-43
SANYO: NP

B. Base
C. Collector
E. Emitter

Case Outline—[2009A]

unit:mm

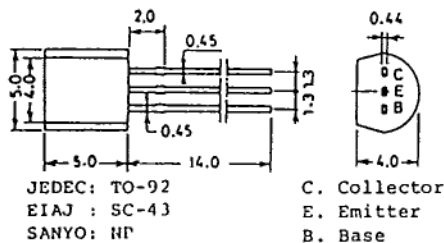


JEDEC: TO-126

B: Base
C: Collector
E: Emitter

Case Outline—[2004A]

unit:mm

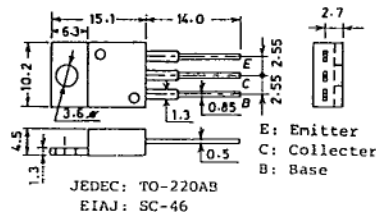


JEDEC: TO-92
EIAJ : SC-43
SANYO: NF

C. Collector
E. Emitter
B. Base

Case Outline—[2010A]

unit:mm

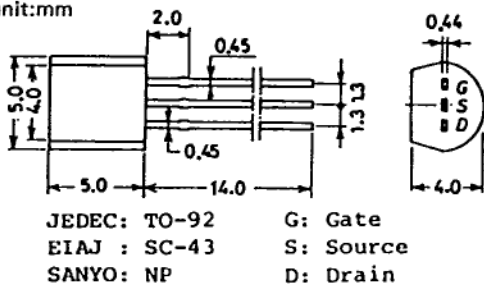


JEDEC: TO-220AB
EIAJ: SC-46

E: Emitter
C: Collector
B: Base

Case Outline—[2005A]

unit:mm

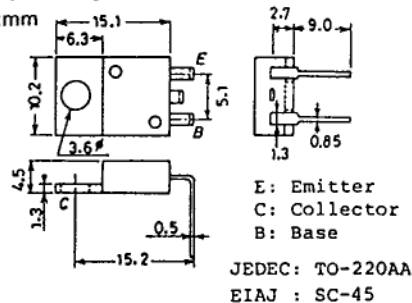


JEDEC: TO-92
EIAJ : SC-43
SANYO: NP

G: Gate
S: Source
D: Drain

Case Outline—[2012]

unit:mm

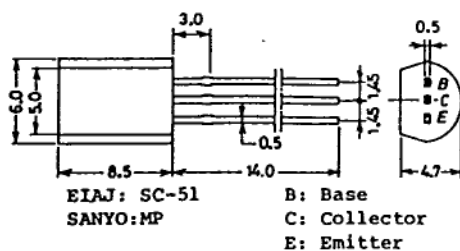


JEDEC: TO-220AA
EIAJ : SC-45

E: Emitter
C: Collector
B: Base

Case Outline—[2006A]

unit:mm

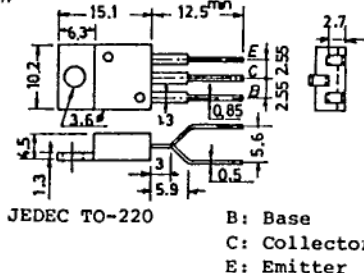


EIAJ: SC-51
SANYO:MP

B: Base
C: Collector
E: Emitter

Case Outline—[2013]

unit:mm



JEDEC TO-220

B: Base
C: Collector
E: Emitter

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

SANYO: KIP

G1: Gate1
S : Source
D : Drain
G2: Gate2
SANYO: OP4A

E: Emitter
C: Collector
B: Base

SANYO:TO3PML

SANYO: SPA

SANYO: SPA

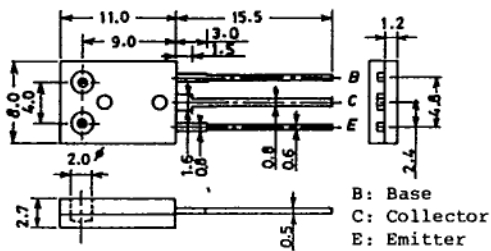
SANYO: SPA

SANYO: TO220ML

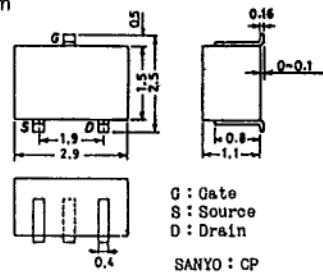
SANYO: SP'

SANYO: TO126ML

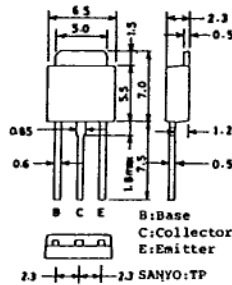
Case Outline—[2043A] unit:mm



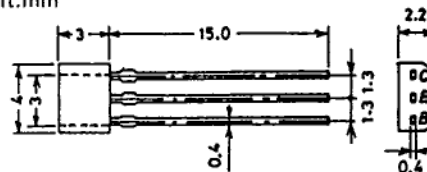
SANYO: TO126LP

Case Outline—[2050]
unit:mm

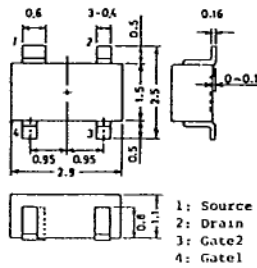
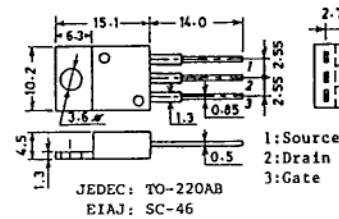
SANYO: CP

Case Outline—[2045]
unit:mm

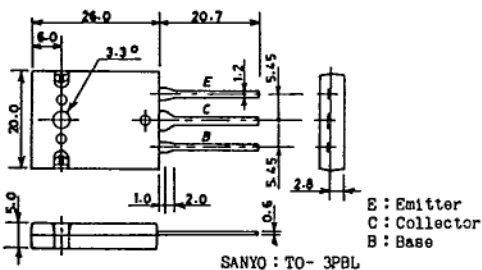
SANYO: TP

Case Outline—[2051]
unit:mm

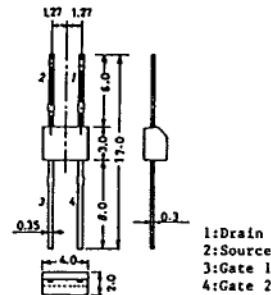
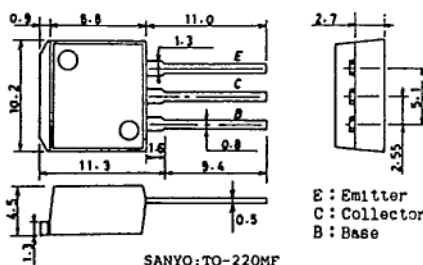
SANYO: SPA

Case Outline—[2046]
unit:mmCase Outline—[2052A]
unit:mmJEDEC: TO-220AB
EIAJ: SC-46

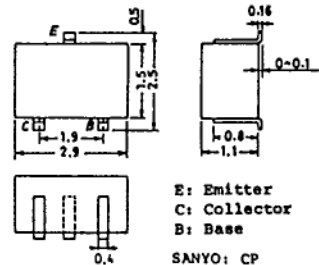
Case Outline—[2048] unit:mm



SANYO: TO-3PBL

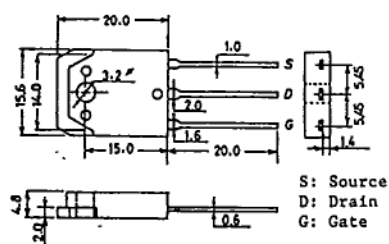
Case Outline—[2053]
unit:mmCase Outline—[2049]
unit:mm

SANYO: TO-220MF

Case Outline—[2054]
unit:mm

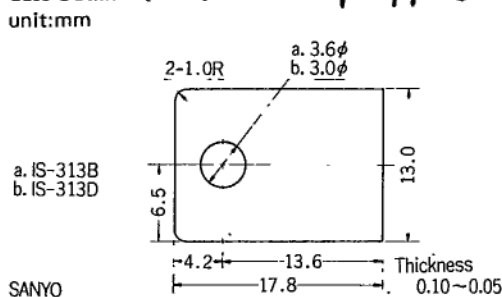
SANYO: CP

Case Outline—[2056] unit:mm

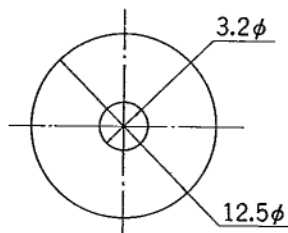


SANYO: TO3PB

Case Outline—[0008] unit:mm



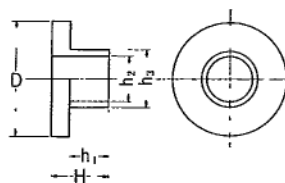
Case Outline—[0004] unit:mm



SANYO IS-126

Thickness : 0.075

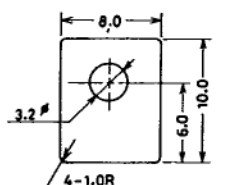
Case Outline—[0009] unit:mm



SANYO Bush

Bush	D	H	h ₁	h ₂	h ₃
A	8.0φ	4.0	2.8	3.1φ	3.89φ
B	8.0φ	3.0	1.8	3.1φ	3.89φ
C	8.0φ	5.7	4.5	3.1φ	3.89φ
D	8.0φ	2.7	1.5	3.1φ	3.89φ
E	8.0φ	3.4	2.2	3.1φ	3.89φ
F	8.0φ	4.0	2.8	3.0φ	3.59φ
K	16.0φ	3.4	1.4	3.1φ	6.0φ
L	6.0φ	3.1	1.5	2.6φ	3.5φ
M	6.0φ	3.1	1.5	3.0φ	3.59φ
P	6.0φ	2.3	1.1	3.0φ	3.59φ

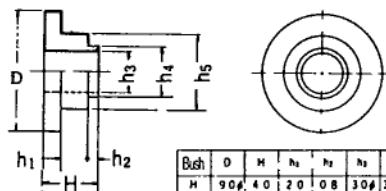
Case Outline—[0005] unit:mm



Thickness : 0.075

SANYO IS-126A Mica

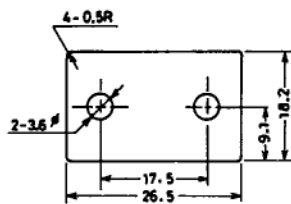
Case Outline—[0010] unit:mm



SANYO Bush

Bush	D	H	h ₁	h ₂	h ₃	h ₄	h ₅
H	9.0φ	4.0	2.0	0.8	3.0φ	3.59φ	5.6φ
T	9.0φ	5.8	2.0	2.6	3.0φ	3.59φ	5.6φ
UB	16.0φ	6.8	1.5	3.3	3.0φ	3.89φ	8.0φ

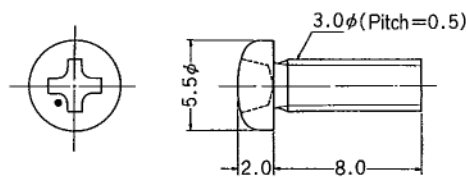
Case Outline—[0006] unit:mm



Thickness : 0.05~0.1

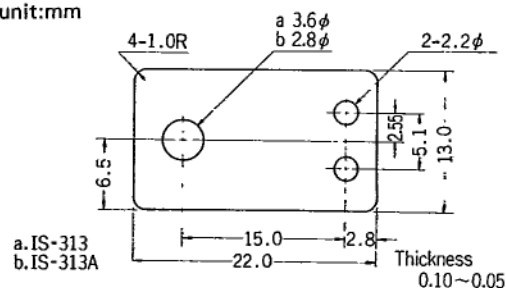
SANYO IS-20MA Mica

Case Outline—[0011] unit:mm

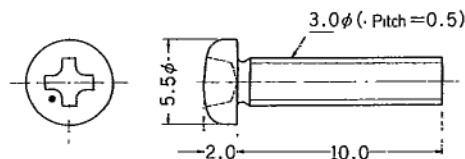


JIS No. B1111 M3×0.5

Case Outline—[0007] unit:mm



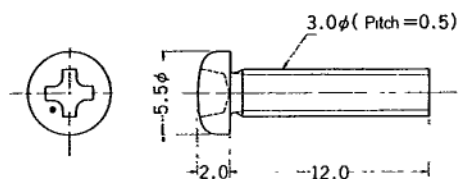
Case Outline—[0012] unit:mm



JIS No. B1111 M3×0.5

Case Outline—[0013]

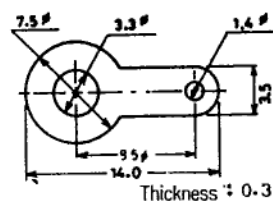
unit:mm



JIS No. B1111 M3×0.5

Case Outline—[0018]

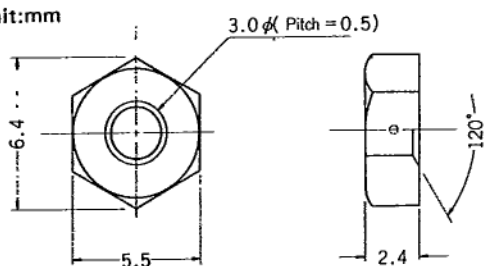
unit:mm



SANYO Lug 1.4

Case Outline—[0014]

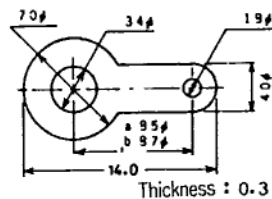
unit:mm



JIS No. B1181 M3×0.5

Case Outline—[0019]

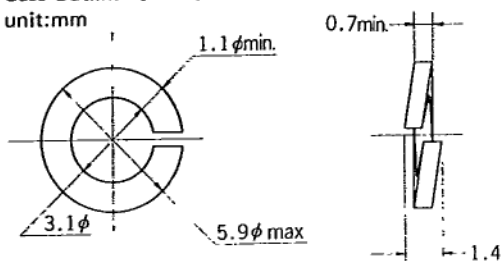
unit:mm



SANYO Lug 1.8φ

Case Outline—[0015]

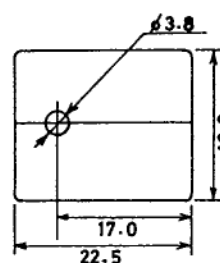
unit:mm



JIS No. B 1251 Spring washer (M3)

Case Outline—[0020]

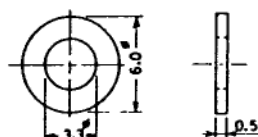
unit:mm



SANYO IS-3MP Mica

Case Outline—[0016]

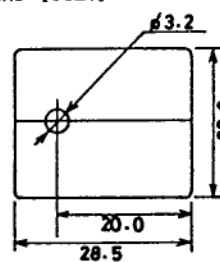
unit:mm



JIS No. B1252 Flat washer

Case Outline—[0021]

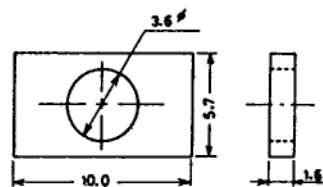
unit:mm



SANYO IS-MPC Mica

Case Outline—[0017]

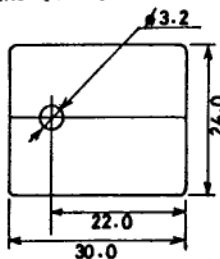
unit:mm



JIS No. G3141 Rectangular washer

Case Outline—[0022]

unit:mm



SANYO IS-3PBL Mica