T-29-25

2SK376

2037

N-Channel Junction
Silicon Field-Effect Transistor

Capacitor Microphone Impedance Conversion Applications

©1432A

Features

- Especially suited for use in audio, telephone capacitor microphones.
- High yfs.
- Excellent voltage characteristic.
- Adoption of FBET process.

Absolute Maximum Ratings at Ta=25°C

			unit
Gate-Drain Voltge	V_{GDO}	-20	V
Gate Current	I_G	10	mA
Allowable Power Dissipation	P_D	100	mW
Junction Temperature	Tj	125	°C
Storage Temperature	Tstg	-55 to +125	°C

Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Drian Current	I_{DSS}	V_{DS}=5V, V_{GS}=0	60*		800*	uA

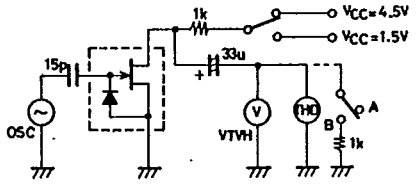
* The 2SK376 is classified by drain current I_{DSS} as follows (unit:uA):

60 J 180	150 K 300	250 L 500	400 M 800

[Ta=25°C, V_{CC}=4.5V, R_L=1kohm, cin=15pF, Specified Test Circuit]			min	typ	max	unit
Transmission Loss	G_V	f=1kHz, V_{in}=100mV		-3.5		dB
Reduced Voltage Characteristic	ΔG_{VV}	f=1kHz, V_{in}=100mV, V_{CC}=4.5 to 1.5V			-3	dB
Frequency Response	ΔG_{Vf}	f=1kHzto110Hz, V_{in}=100mV			-1	dB
Input Impedance	Z_{in}	f=1kHz	18.0			Mohm
Output Impedance	z_o	f=1kHz			1.0	kohm
Total Harmonic Distortion	THD	f=1kHz, V_{in}=100mV		3		%
Output Noise Voltage	V_{NO}	V_{in}=0, A curve			-110	dB

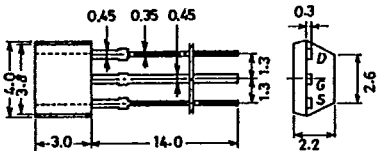
Specified Test Circuit

Transmission loss
Frepuency response
Distortion
Reduced voltage characteristic



For output impedance

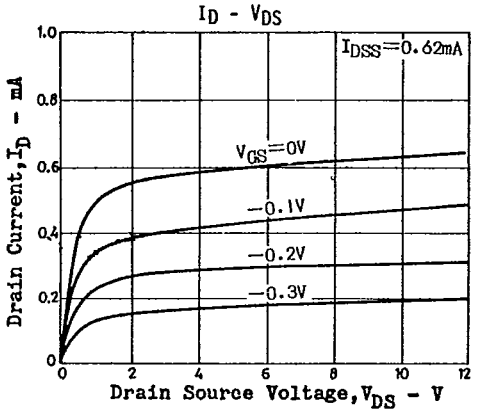
Case Outline 2037
(unit:mm)



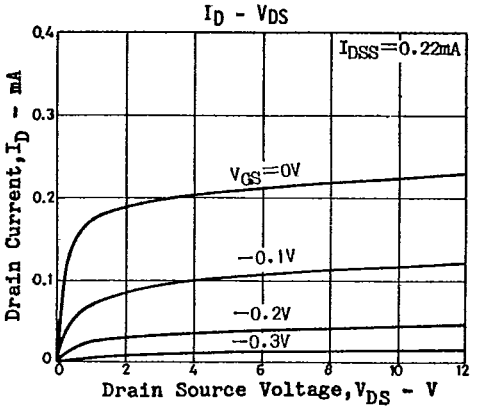
D: Drain
G: Gate
S: Sourse

SANYO: SP'

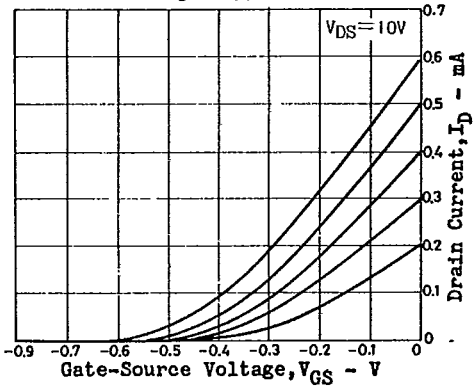
I_D - V_{DS}



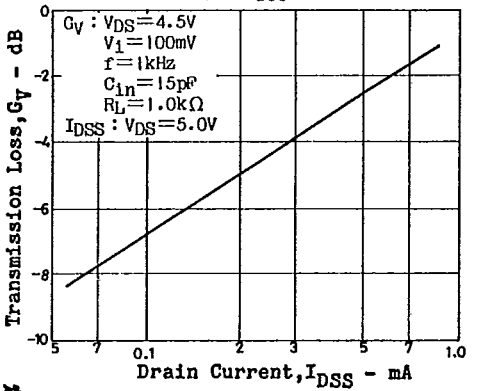
I_D - V_{DS}



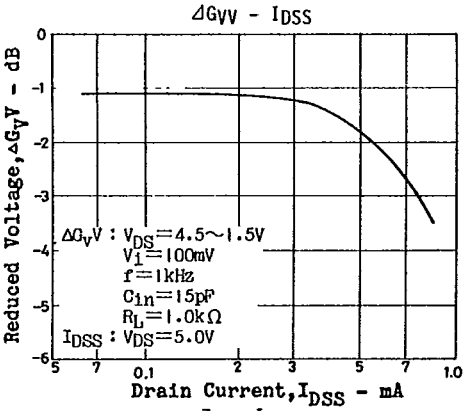
I_D - V_{GS}



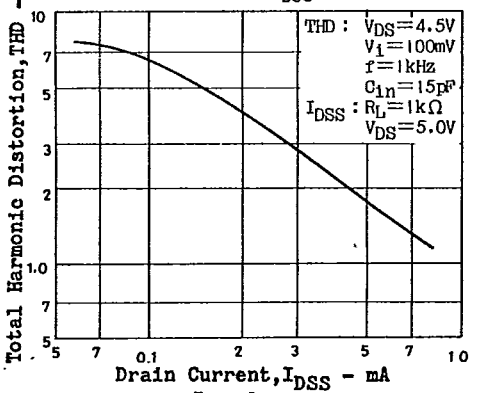
G_V - I_{DSS}



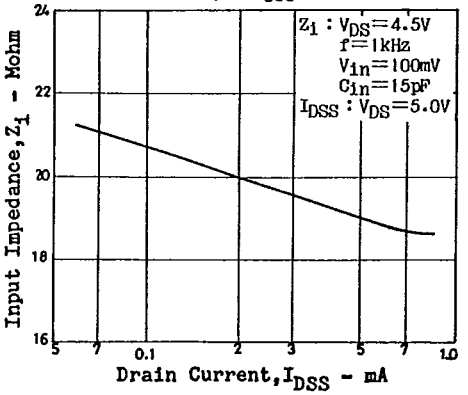
$\Delta G_V V$ - I_{DSS}



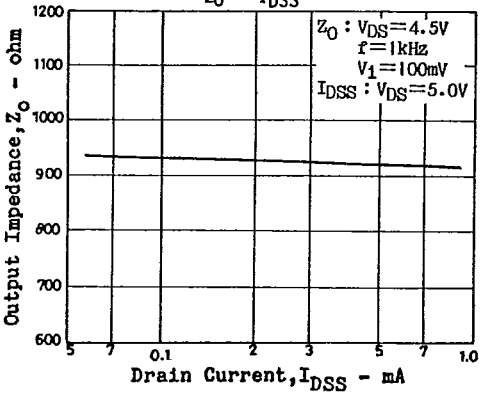
THD - I_{DSS}

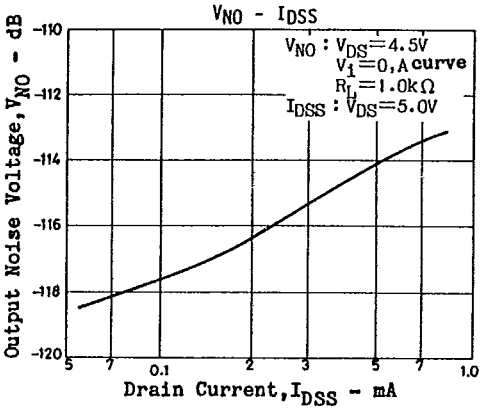


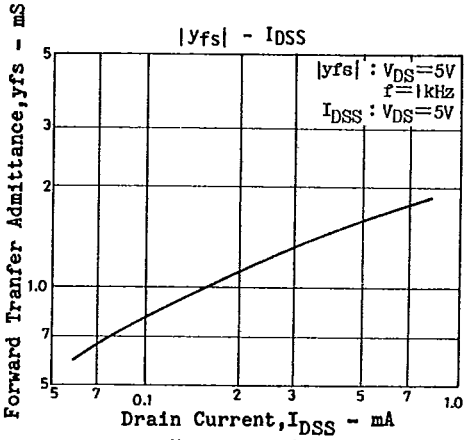
Z_i - I_{DSS}

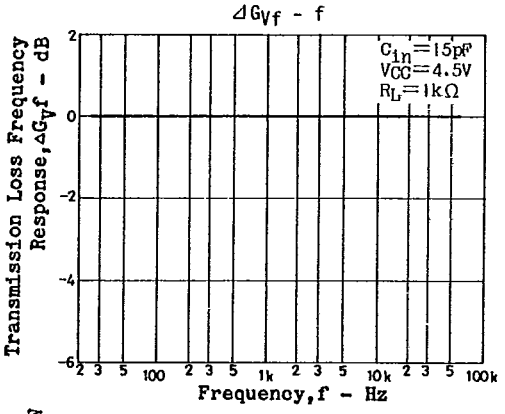


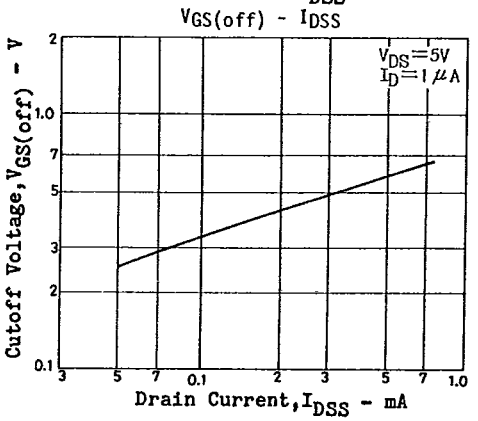
Z_O - I_{DSS}

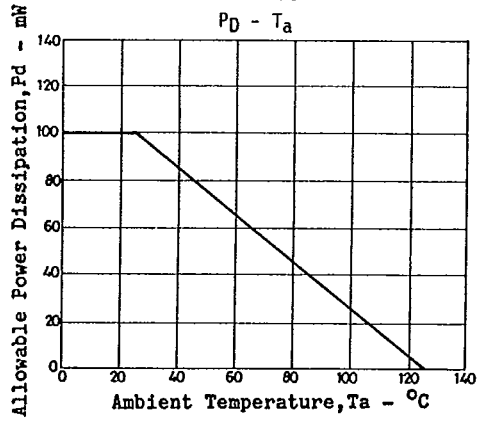




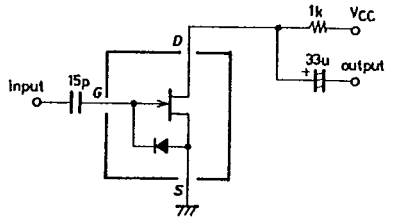








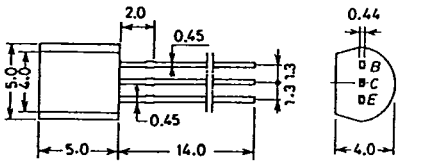
Sample Application Circuit: 2-wire type



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.

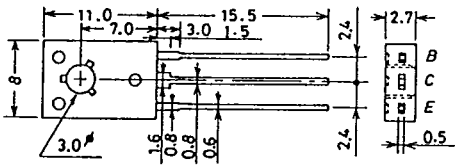
Case Outline—[2003A]
unit:mm



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

B. Base
C. Collector
E. Emitter

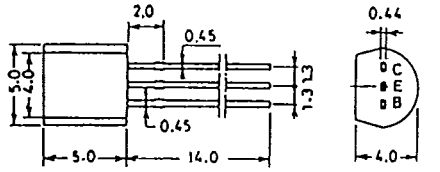
Case Outline—[2009A]
unit:mm



JEDEC: TO-126

B: Base
C: Collector
E: Emitter

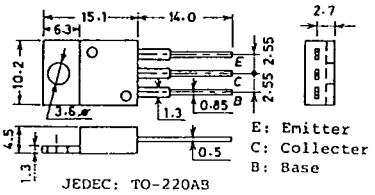
Case Outline—[2004A]
unit:mm



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

C. Collector
E. Emitter
B. Base

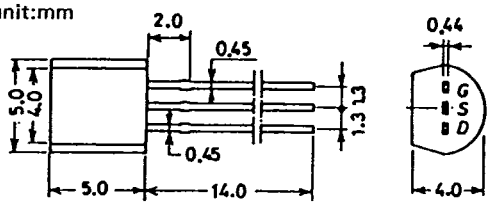
Case Outline—[2010A]
unit:mm



JEDEC: TO-220AB
EIAJ: SC-46

E: Emitter
C: Collecter
B: Base

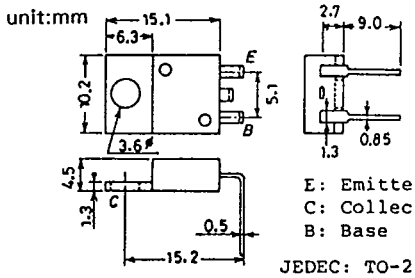
Case Outline—[2005A]
unit:mm



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

G: Gate
S: Source
D: Drain

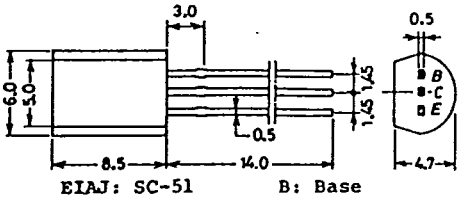
Case Outline—[2012]
unit:mm



E: Emitter
C: Collector
B: Base

JEDEC: TO-220AA
EIAJ : SC-45

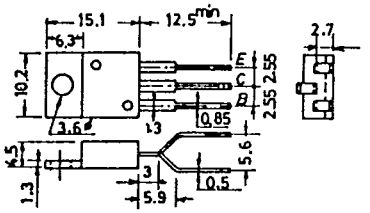
Case Outline—[2006A]
unit:mm



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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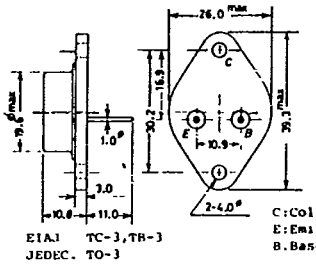
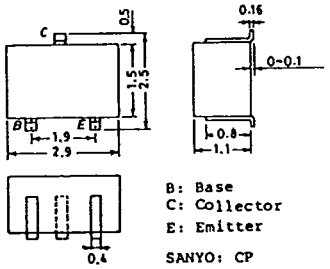
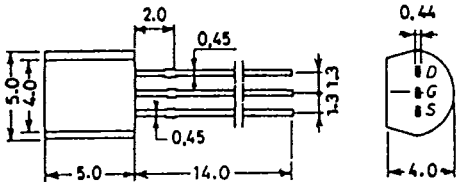
Case Outline—[2017]
unit:mm



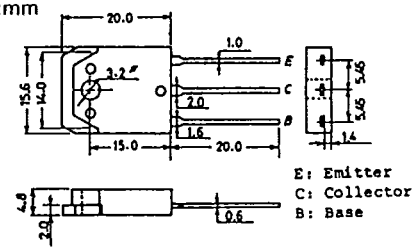
Case Outline—[2018A]
unit:mm



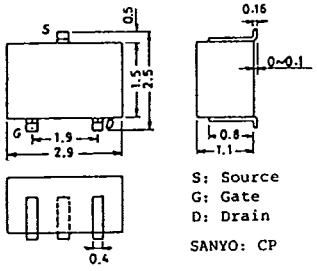
Case Outline—[2019A]
unit:mm



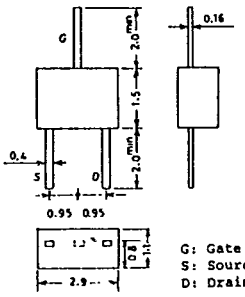
Case Outline—[2022]
unit:mm



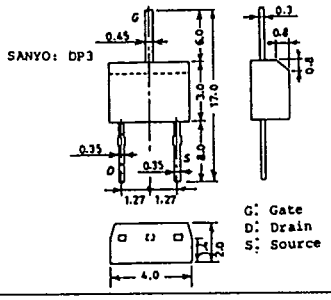
Case Outline—[2024A]
unit:mm



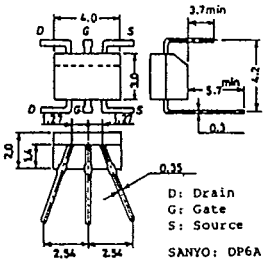
Case Outline—[2025]
unit:mm



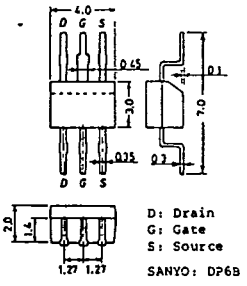
Case Outline—[2026]
unit:mm



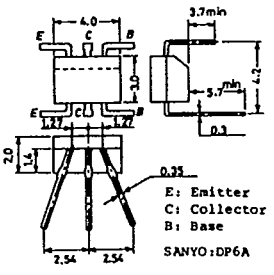
Case Outline—[2027A]
unit:mm



Case Outline—[2028A]
unit:mm



Case Outline—[2029A]
unit:mm



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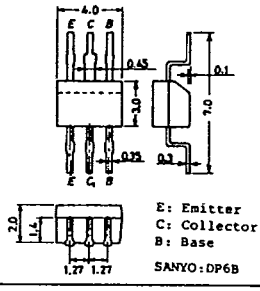
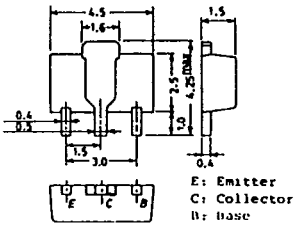
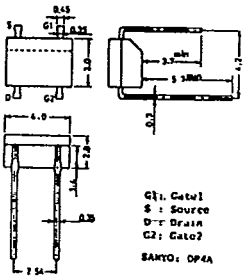
Case Outline—[2030A]
unit:mm



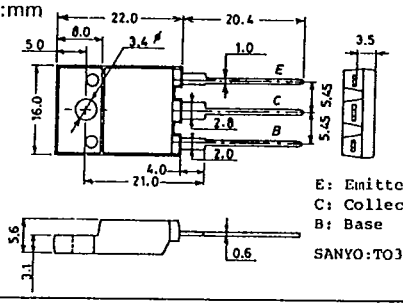
Case Outline—[2038]
unit:mm



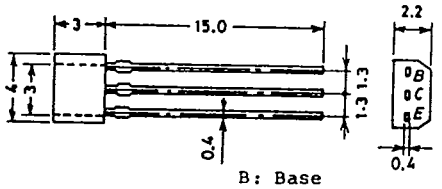
Case Outline—[2031A]
unit:mm



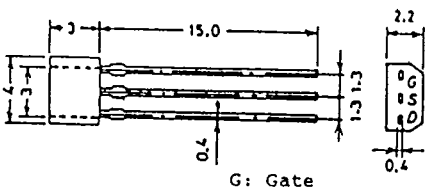
Case Outline—[2039]
unit:mm



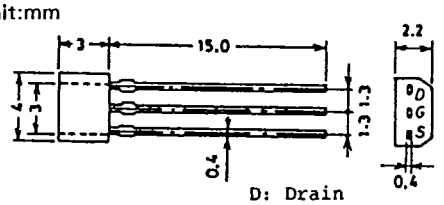
Case Outline—[2033]
unit:mm



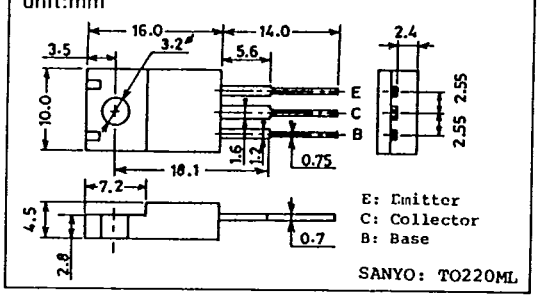
Case Outline—[2040]
unit:mm



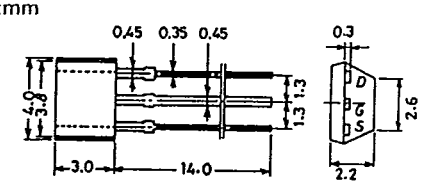
Case Outline—[2034]
unit:mm



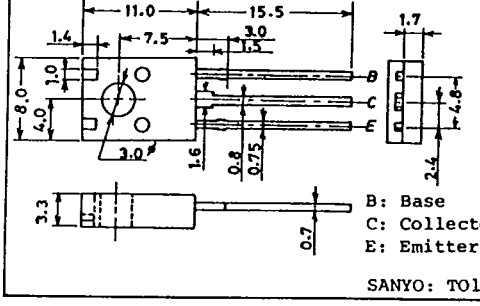
Case Outline—[2041]
unit:mm



Case Outline—[2037]
unit:mm



Case Outline—[2042A] unit:mm



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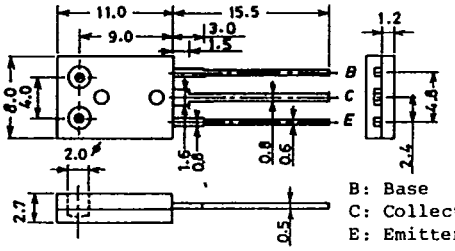
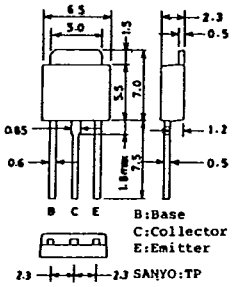
Case Outline—[2043A] unit:mm

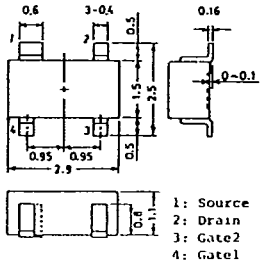


SANYO: TO126LP

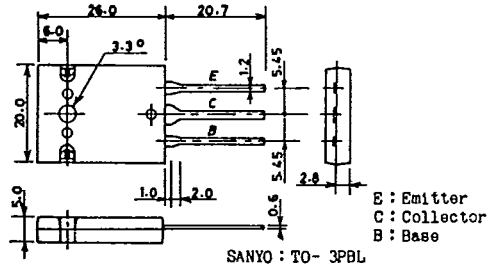
Case Outline—[2045] unit:mm



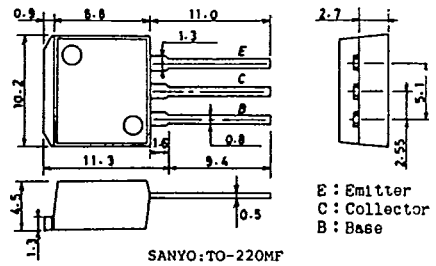
Case Outline—[2046] unit:mm



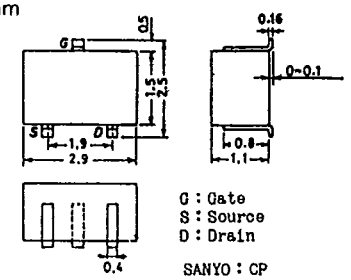
Case Outline—[2048] unit:mm



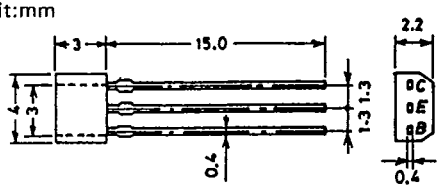
Case Outline—[2049] unit:mm



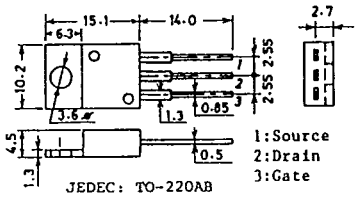
Case Outline—[2050] unit:mm



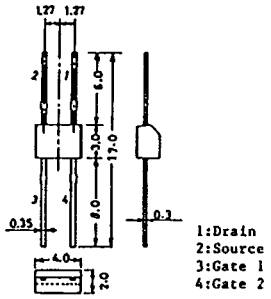
Case Outline—[2051] unit:mm



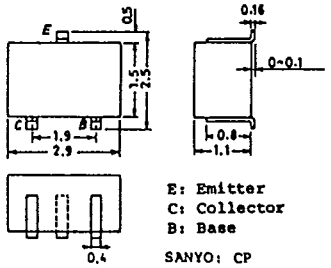
Case Outline—[2052A] unit:mm



Case Outline—[2053] unit:mm



Case Outline—[2054] unit:mm



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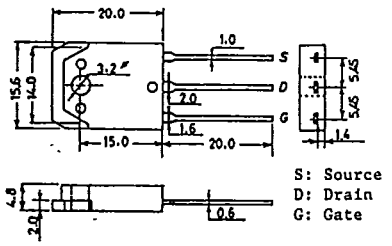
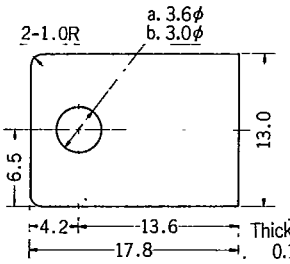
Case Outline—[2056] unit:mm



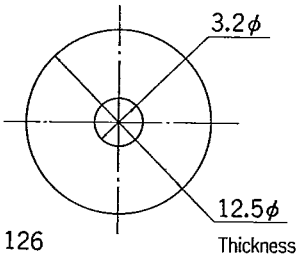
SANYO: TO3PB

Case Outline—[0008]
unit:mm



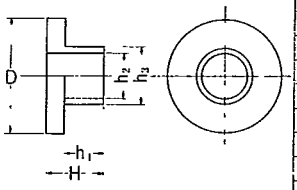
SANYO

Case Outline—[0004]
unit:mm



SANYO IS-126 Thickness : 0.075

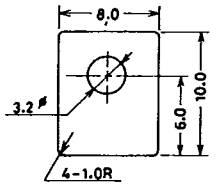
Case Outline—[0009]
unit:mm



Bush	D	H	h1	h2	h3
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

SANYO Bush

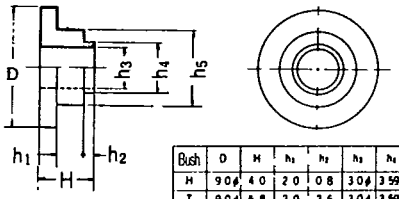
Case Outline—[0005]
unit:mm



Thickness : 0.075

SANYO IS-126A Mica

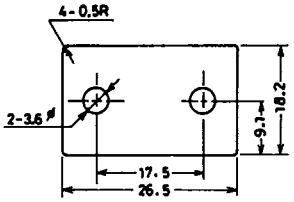
Case Outline—[0010]
unit:mm



Bush	D	H	h1	h2	h3	h4	h5
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

SANYO Bush

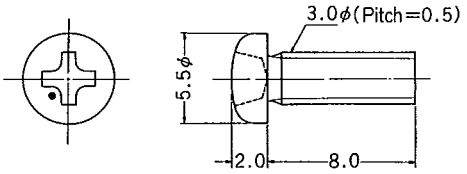
Case Outline—[0006]
unit:mm



Thickness : 0.05~0.1

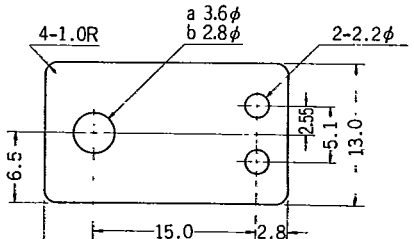
SANYO IS-20MA Mica

Case Outline—[0011]
unit:mm



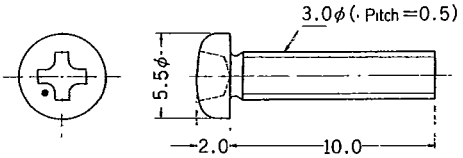
JIS No.B1111 M3×0.5

Case Outline—[0007]
unit:mm



a. IS-313
b. IS-313A
Thickness
0.10~0.05

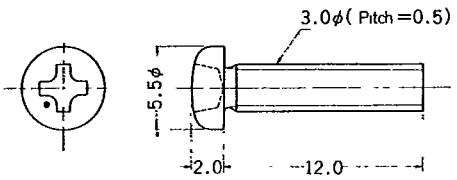
Case Outline—[0012]
unit:mm



JIS No.B1111 M3×0.5

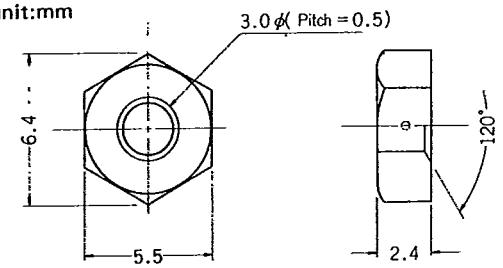
T-91-20

Case Outline—[0013]
unit:mm



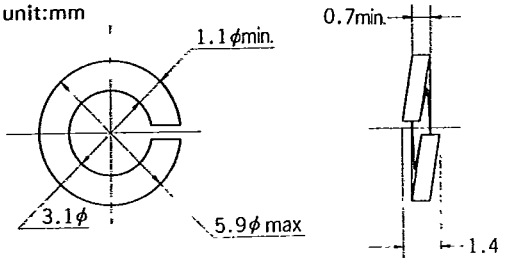
JIS No.B1111 M3×0.5

Case Outline—[0014]
unit:mm



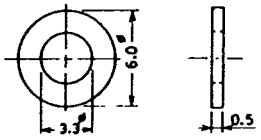
JIS No. B1181 M3×0.5

Case Outline—[0015]
unit:mm



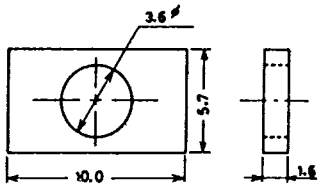
JIS No. B 1251 Spring washer (M3)

Case Outline—[0016]
unit:mm



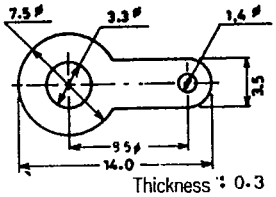
JIS No.B1252 Flat washer

Case Outline—[0017]
unit:mm



JIS No.G3141 Rectangular washer

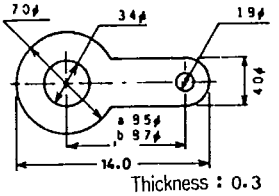
Case Outline—[0018]
unit:mm



Thickness : 0.3

SANYO Lug 1.4

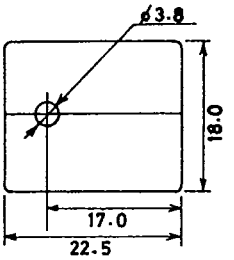
Case Outline—[0019]
unit:mm



Thickness : 0.3

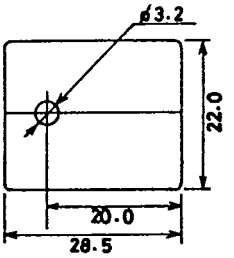
SANYO Lug 1.8φ

Case Outline—[0020]
unit:mm



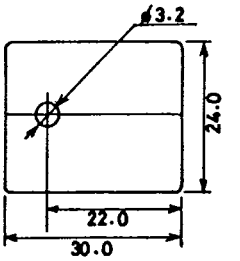
SANYO IS-3MP Mica

Case Outline—[0021]
unit:mm



SANYO IS-MPC Mica

Case Outline—[0022]
unit:mm



SANYO IS-3PBL Mica