2SK283

2050

N-Channel Junction
Silicon Field-Effect Transistor

High Voltage Driver Applications

©794E

FEATURES

- Because it is encapsulated in an ultra compact package, compact and low-profile sets can be designed.
- Ultra high voltage withstanding.
- Due to low gate leakage currents even at high voltages, it is suited for a wide range of applications.
- High $|y_{fs}|$.

ABSOLUTE MAXIMUM RATINGS/T_a = 25°C

				unit
Drain-source voltage	V_{DSS}		80	V
Gate-drain voltage	V_{GDS}		−80	V
Gate current	I_G		10	mA
Allowable power dissipation	P_D (1)		150	mW
	P_D (2)	4 x 4 x 0.2 mm³ copper foil area on glass epoxy board	280	mW
Junction temperature	T_j		125	°C
Storage ambient temperature	T_{stg}		−40 ~ +125	°C

ELECTRICAL CHARACTERISTICS/T_a = 25°C

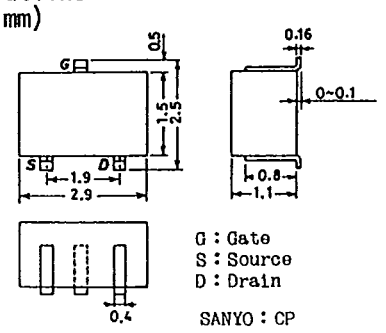
			min	typ	max	unit
Gate-drain breakdown voltage	$V_{(BR)GDS}$	I_G = −100 μA	−80			V
Gate cut-off current	I_{GSS}	V_{GS} = −30 V			−1.0	nA
Drain current	I_{DSS}	V_{DS} = 30 V, V_{GS} = 0 V	1.2*		17.0*	mA
Cut-off voltage	$V_{GS(off)}$	V_{DS} = 30 V, I_D = 10 μA		−0.75		V
Mutual conductance	$\|y_{fs}\|$	V_{DS} = 30 V, V_{GS} = 0 V, f = 1 kHz		20		mS
Input capacitance	c_{iss}	V_{DS} = 30 V, V_{GS} = 0 V, f = 1 MHz		12		pF
Feedback capacitance	c_{rss}	V_{DS} = 30 V, V_{GS} = 0 V, f = 1 MHz		2.5		pF

* 2SK283 is graded as follows by I_{DSS} at V_{DS} = 30 V (unit : mA):

1.2 R3 3.0	2.5 R4 6.0	5.0 R5 12.0	10.0 R6 17.0

(Note) Marking on device : R
I_{DSS} rank : 3,4,5,6

Case Outline 2050
(unit:mm)



G : Gate
S : Source
D : Drain

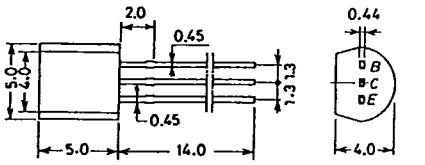
SANYO : CP

The 2SK283 is scheduled to be discontinued soon.

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.

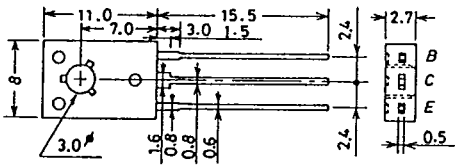
Case Outline—[2003A]
unit:mm



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

B. Base
C. Collector
E. Emitter

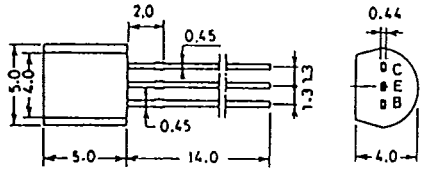
Case Outline—[2009A]
unit:mm



JEDEC: TO-126

B: Base
C: Collector
E: Emitter

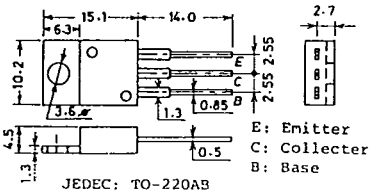
Case Outline—[2004A]
unit:mm



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

C. Collector
E. Emitter
B. Base

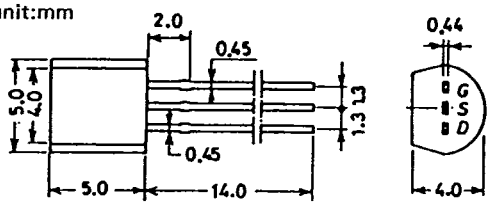
Case Outline—[2010A]
unit:mm



JEDEC: TO-220AB
EIAJ: SC-46

E: Emitter
C: Collecter
B: Base

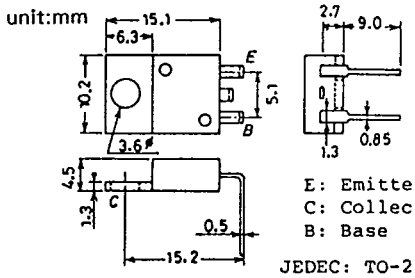
Case Outline—[2005A]
unit:mm



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

G: Gate
S: Source
D: Drain

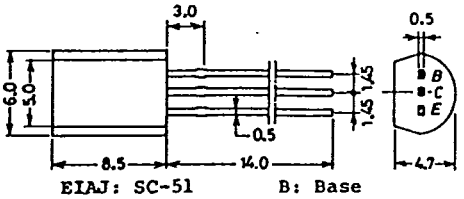
Case Outline—[2012]
unit:mm



E: Emitter
C: Collector
B: Base

JEDEC: TO-220AA
EIAJ : SC-45

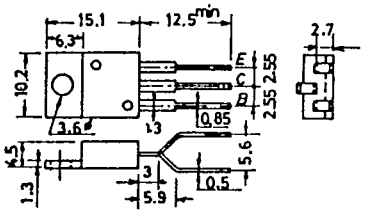
Case Outline—[2006A]
unit:mm



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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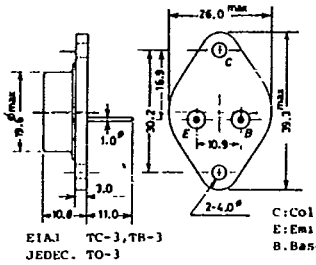
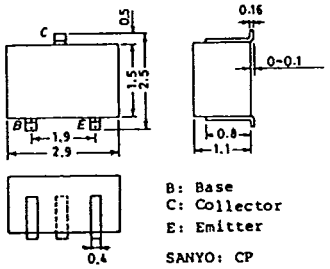
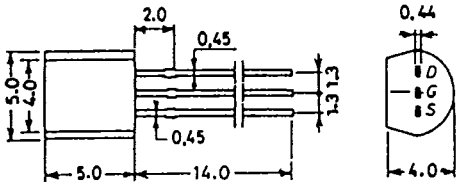
Case Outline—[2017]
unit:mm



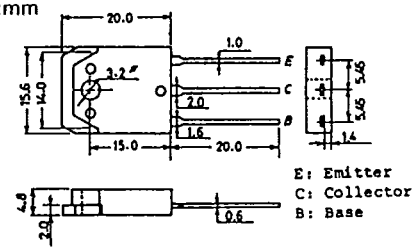
Case Outline—[2018A]
unit:mm



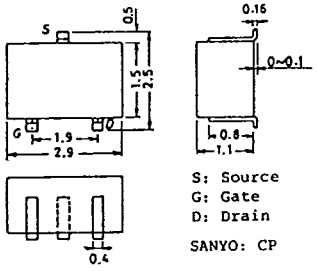
Case Outline—[2019A]
unit:mm



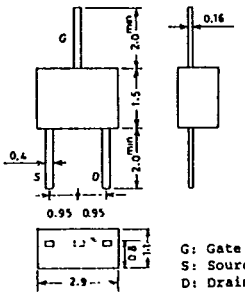
Case Outline—[2022]
unit:mm



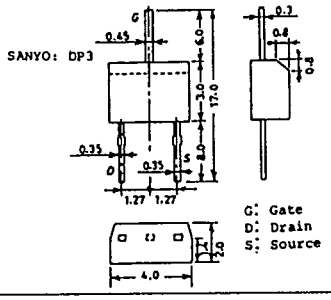
Case Outline—[2024A]
unit:mm



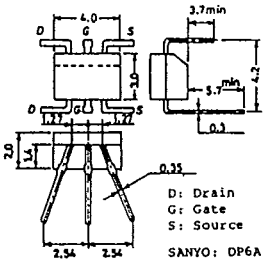
Case Outline—[2025]
unit:mm



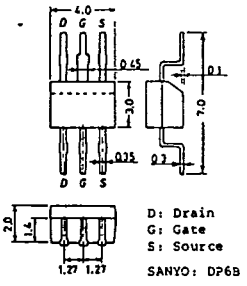
Case Outline—[2026]
unit:mm



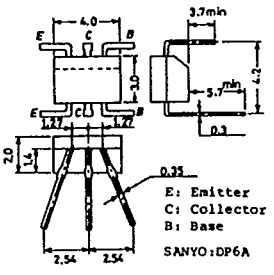
Case Outline—[2027A]
unit:mm



Case Outline—[2028A]
unit:mm



Case Outline—[2029A]
unit:mm



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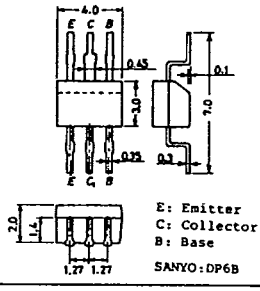
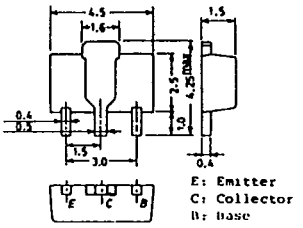
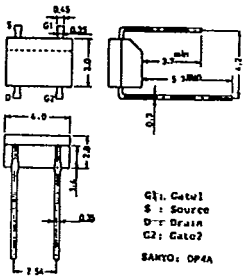
Case Outline—[2030A]
unit:mm



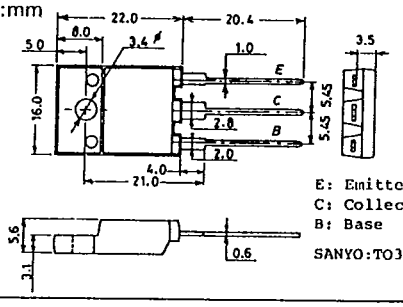
Case Outline—[2038]
unit:mm



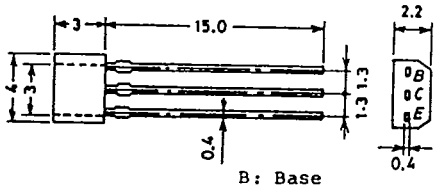
Case Outline—[2031A]
unit:mm



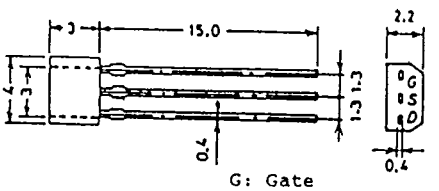
Case Outline—[2039]
unit:mm



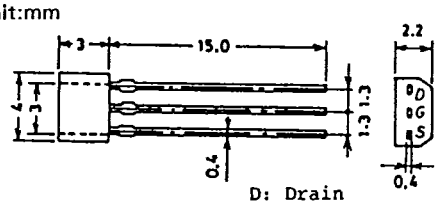
Case Outline—[2033]
unit:mm



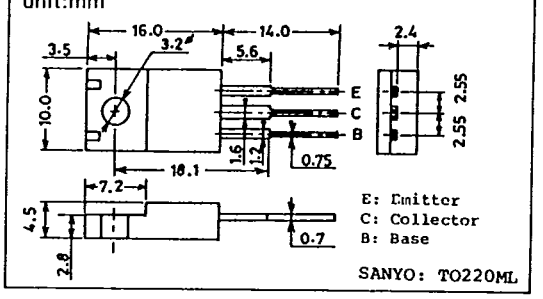
Case Outline—[2040]
unit:mm



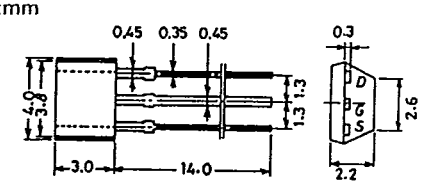
Case Outline—[2034]
unit:mm



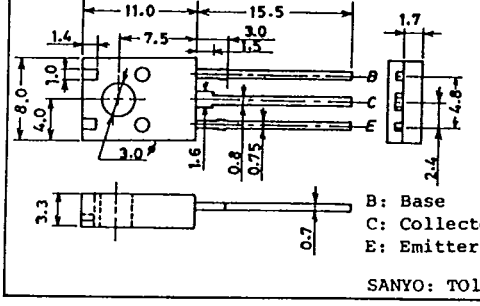
Case Outline—[2041]
unit:mm



Case Outline—[2037]
unit:mm



Case Outline—[2042A] unit:mm



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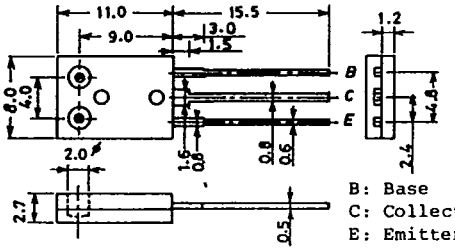
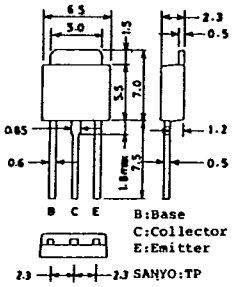
Case Outline—[2043A] unit:mm

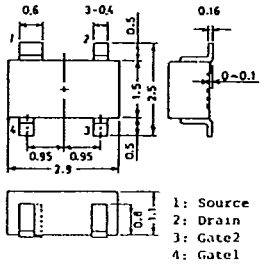


SANYO: TO126LP

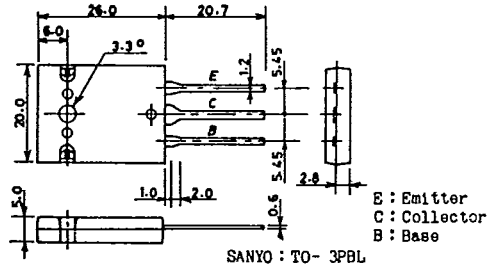
Case Outline—[2045] unit:mm



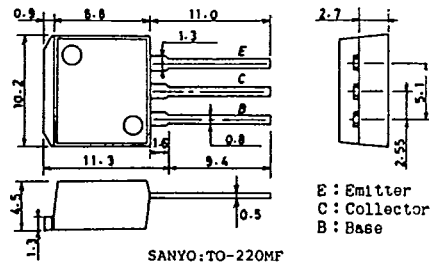
Case Outline—[2046] unit:mm



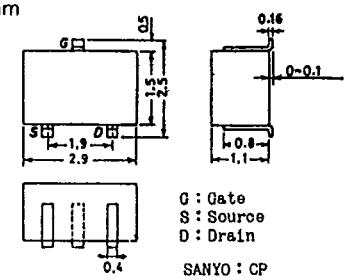
Case Outline—[2048] unit:mm



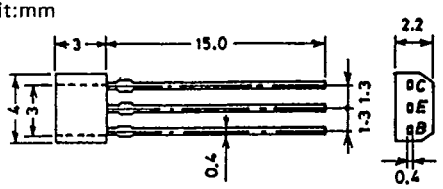
Case Outline—[2049] unit:mm



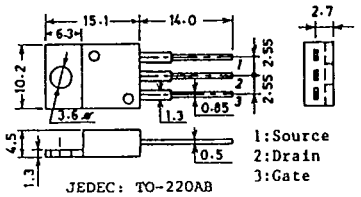
Case Outline—[2050] unit:mm



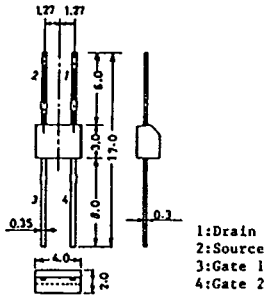
Case Outline—[2051] unit:mm



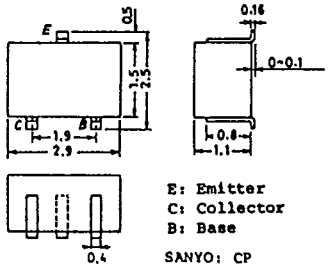
Case Outline—[2052A] unit:mm



Case Outline—[2053] unit:mm



Case Outline—[2054] unit:mm



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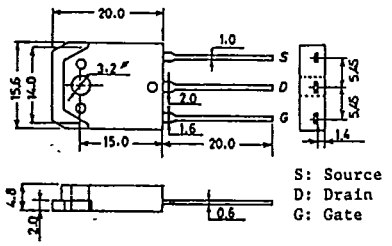
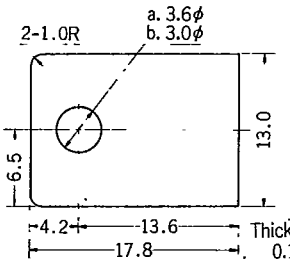
Case Outline—[2056] unit:mm



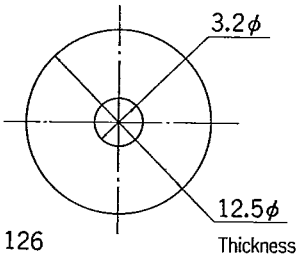
SANYO: TO3PB

Case Outline—[0008]
unit:mm



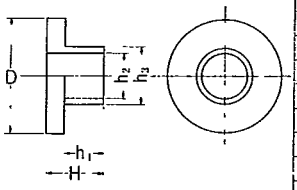
SANYO

Case Outline—[0004]
unit:mm



SANYO IS-126 Thickness : 0.075

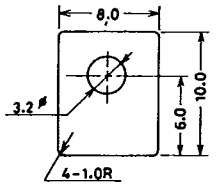
Case Outline—[0009]
unit:mm



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

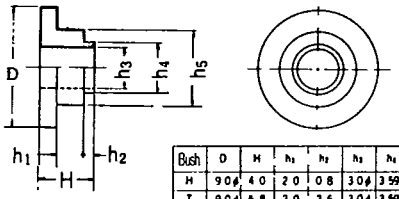
Case Outline—[0005]
unit:mm



Thickness : 0.075

SANYO IS-126A Mica

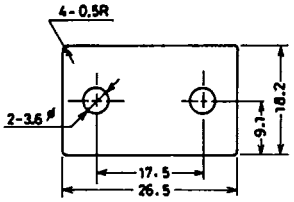
Case Outline—[0010]
unit:mm



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

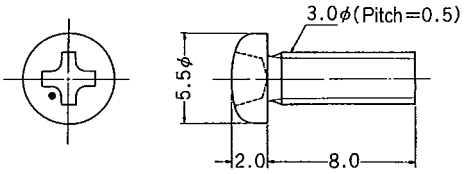
Case Outline—[0006]
unit:mm



Thickness : 0.05~0.1

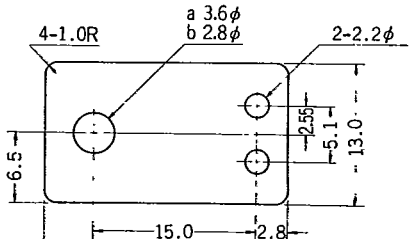
SANYO IS-20MA Mica

Case Outline—[0011]
unit:mm



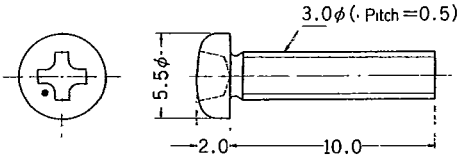
JIS No.B1111 M3×0.5

Case Outline—[0007]
unit:mm



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

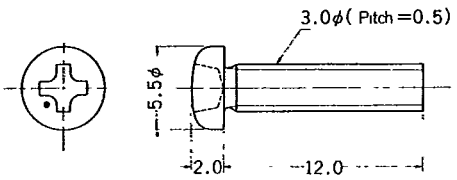
Case Outline—[0012]
unit:mm



JIS No.B1111 M3×0.5

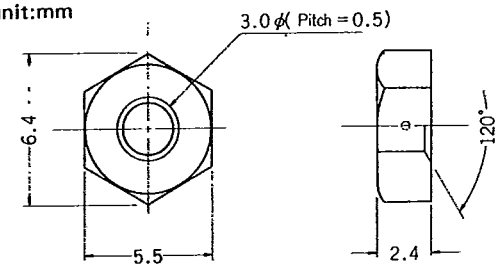
T-91-20

Case Outline—[0013]
unit:mm



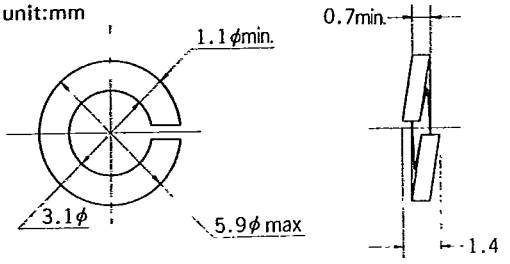
JIS No.B1111 M3×0.5

Case Outline—[0014]
unit:mm



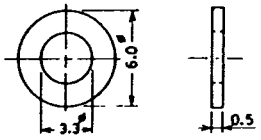
JIS No. B1181 M3×0.5

Case Outline—[0015]
unit:mm



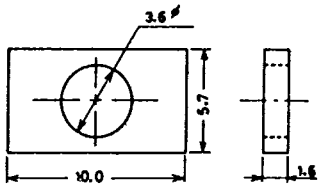
JIS No. B 1251 Spring washer (M3)

Case Outline—[0016]
unit:mm



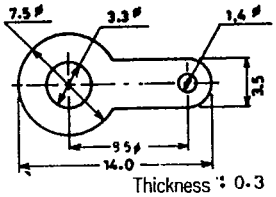
JIS No.B1252 Flat washer

Case Outline—[0017]
unit:mm



JIS No.G3141 Rectangular washer

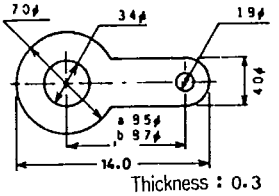
Case Outline—[0018]
unit:mm



Thickness : 0.3

SANYO Lug 1.4

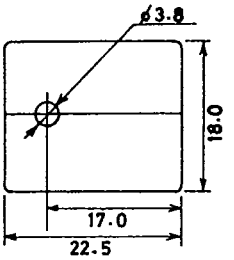
Case Outline—[0019]
unit:mm



Thickness : 0.3

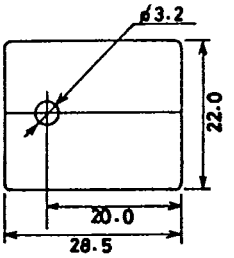
SANYO Lug 1.8φ

Case Outline—[0020]
unit:mm



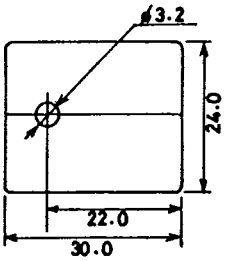
SANYO IS-3MP Mica

Case Outline—[0021]
unit:mm



SANYO IS-MPC Mica

Case Outline—[0022]
unit:mm



SANYO IS-3PBL Mica