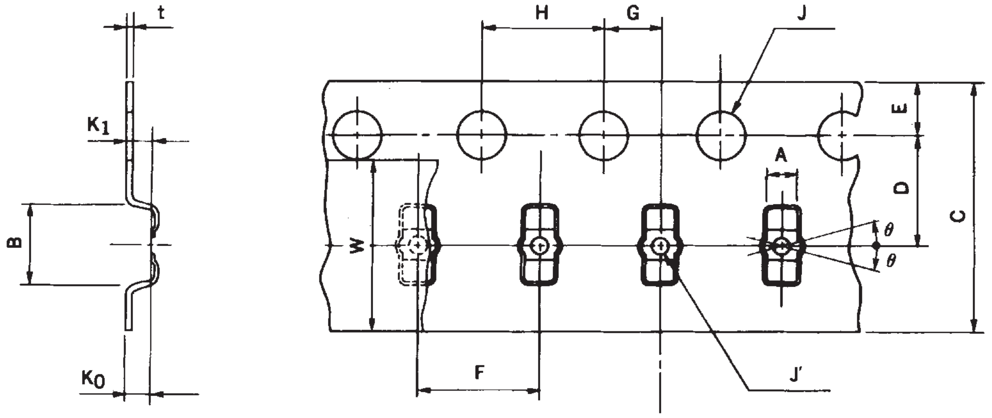
PACKAGING SPECIFICATION FOR SMD

PACKING INFORMATION

	TAPING TYPE	Q'ty	TAPE SIZE	REEL SIZE
2/3-PIN ULTRA SUPER MINI MOLD	-T1 -T2	3000pcs/reel	8mm	178mm ϕ
2-PIN SUPER MINI MOLD	-T1 -T2	3000pcs/reel	8mm	178mm ϕ
2-PIN POWER MINI MOLD	-T1 -T2	1500pcs/reel	8mm	178mm ϕ
3/5/6-PIN SUPER MINI MOLD	-T1 -T2	3000pcs/reel	8mm	178mm ϕ
3-PIN MINI MOLD	-T1B -T2B	3000pcs/reel	8mm	178mm ϕ
5/6-PIN MINI MOLD	-T1 -T2	3000pcs/reel	8mm	178mm ϕ
3-PIN MINI MOLD(Thin Type)	-T1B -T2B	3000pcs/reel	8mm	178mm ϕ
6-PIN MINI MOLD(Thin Type)	-T1 -T2	3000pcs/reel	8mm	178mm ϕ
3-PIN POWER MINI MOLD	-T1 -T2	1000pcs/reel	12mm	178mm ϕ
SC-84	-T1 -T2	1000pcs/reel	12mm	178mm ϕ
Power TSSOP8	-E1 -E2	3000pcs/reel	12mm	330mm ϕ
Power SOP8	-E1 -E2	2500pcs/reel	12mm	330mm ϕ
TO-252	-E1 -E2	2000pcs/reel	16mm	330mm ϕ
TO-263	-E1 -E2	800pcs/reel	24mm	330mm ϕ

TAPE DIMENSIONS

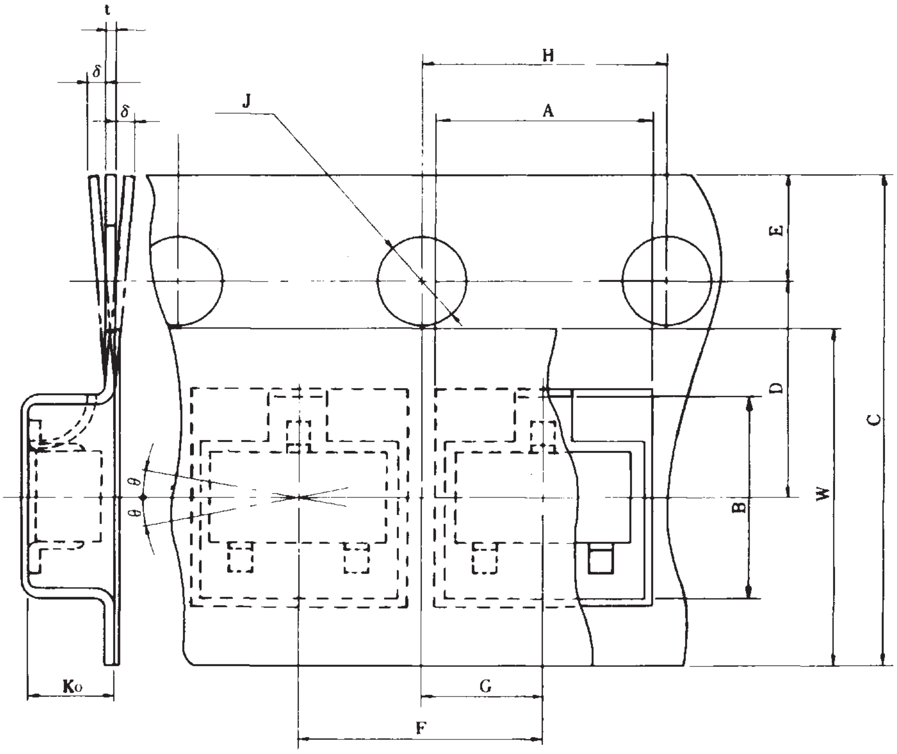
a) 2-PIN ULTRA SUPER MINI MOLD



UNIT : mm

ITEM		SYMBOL	SIZE	REMARKS
Depression Angular Hole for Device Insertion	Width	A	1.0±0.1	Opening Size
	Length	B	2.45±0.1	Opening Size
	Depth	K_0	0.76±0.1	Inner Space
	Pitch	F	4.0±0.1	Accumulative Pitch $^{+0.1}_{-0.3}$ MAX./10 Pitch
Air Hole	Diameter	J′	ϕ0.6±0.1	
Round Hole for Feeding	Diameter	J	ϕ1.55±0.1	
	Pitch	H	4.0±0.1	Accumulative Pitch $^{+0.1}_{-0.3}$ MAX./10 Pitch
	Position	E	1.75±0.1	
Distance Between Center-lines	Cross Direction	G	2.0±0.05	
	Cross Direction	D	3.5±0.05	
Cover Tape	Width	W	$5.5^{+0.3}_{-0}$	Thickness : 0.1 MAX.
Carrier Tape	Width	C	8.0±0.2	Warpage δ : 0.3 MAX.
	Thickness	t	0.3±0.05	
	Outer Depth of Hole	K_1	0.81±0.1	
Device	Outer Dimensions			
	Inclination	θ	30° MAX.	

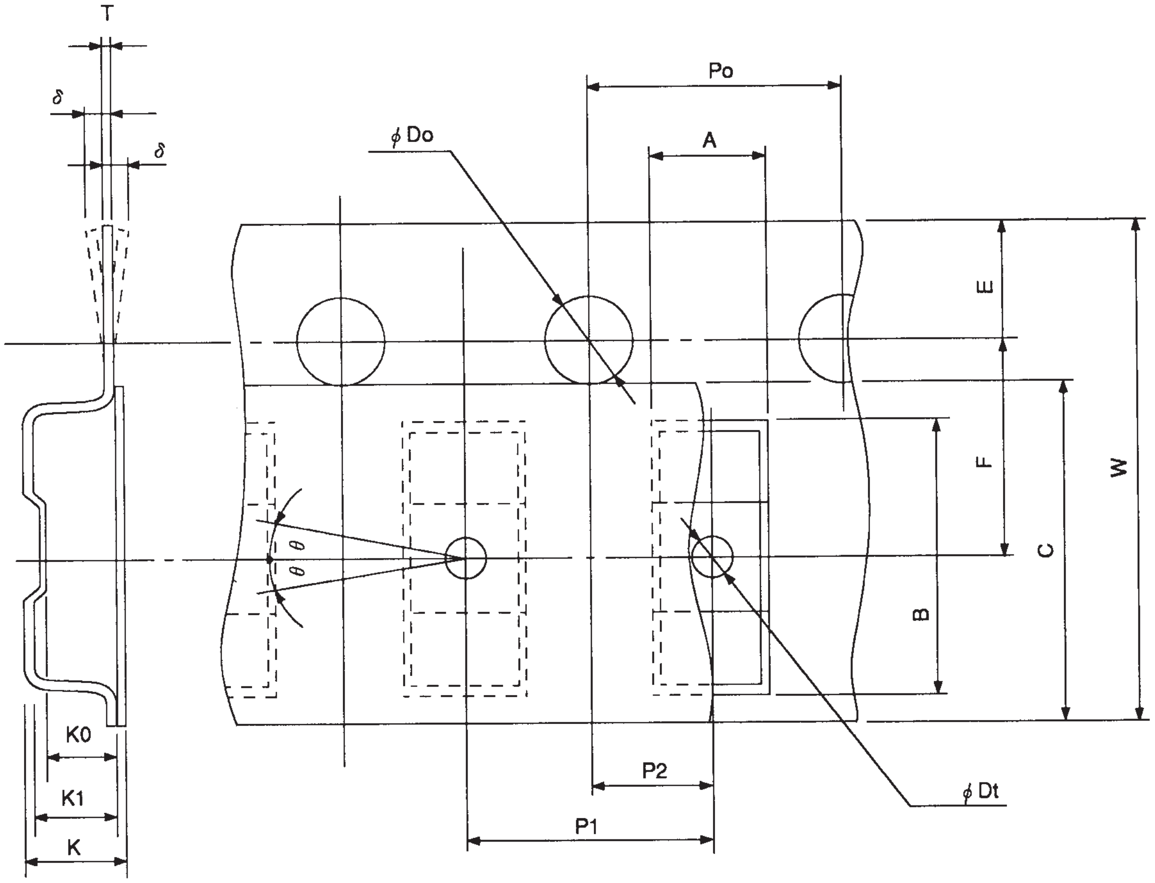
b) 3-PIN ULTRA SUPER MINI MOLD



UNIT : mm

ITEM		SYMBOL	SIZE	REMARKS
Depression Angular Hole for Device Insertion	Length	A	1.8 $^{+0.1}_{-0.1}$	Opening Size
	Width	B	1.8 $^{+0.1}_{-0.1}$	Opening Size
	Depth	K_O	0.9 ±0.1	Inner Space
	Pitch	F	4.0 ±0.1	Accumulative Pitch ±0.2 MAX./10 Pitch
Round Hole for Feeding	Diameter	J	ϕ1.5 $^{+0.1}_{-0.05}$	
	Pitch	H	4.0 ±0.1	Accumulative Pitch ±0.2 MAX./10 Pitch
	Position	E	1.75±0.1	
Distance Between Center-lines	Length Direction	G	2.0 ±0.05	
	Width Direction	D	3.5 ±0.05	
Cover Tape	Width	W	5.5 ±0.1	Thickness : 0.1 MAX.
Carrier Tape	Width	C	8.0 ±0.2	Warpage δ : 0.3 MAX.
	Thickness	t	0.2 ±0.05	
Device	Tilt	θ	30° MAX.	

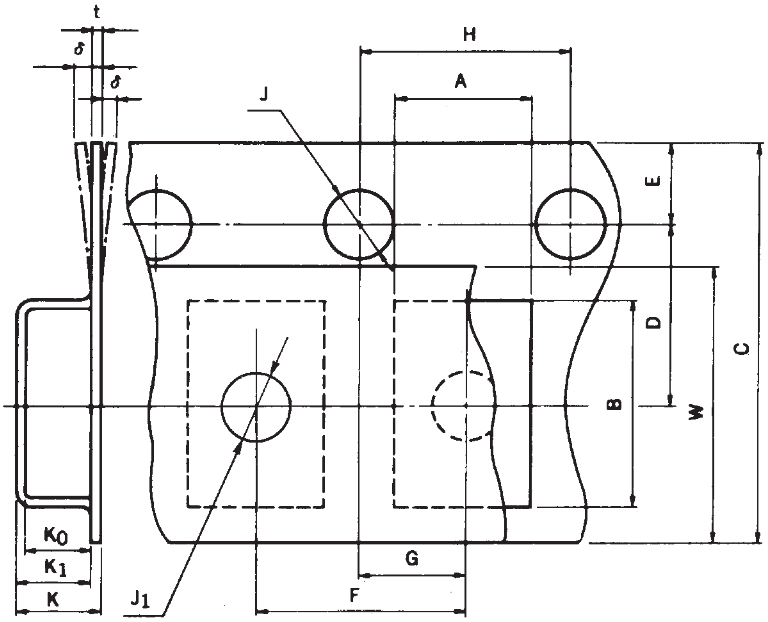
c) 2-PIN SUPER MINI MOLD



UNIT : mm

ITEM		SYMBOL	SIZE	REMARKS
Depression Angular Hole for Device Insertion	Width	A	1.55±0.1	Opening Size
	Length	B	3.05±0.1	Opening Size
	Depth	K_0	1.0±0.1	Inner Space
	Pitch	P_1	4.0±0.1	Accumulative Pitch $^{+0.1}_{-0.3}$ MAX./10 Pitch
Air Hole	Diameter	φ D_1	φ 1.05±0.1	
Round Hole for Feeding	Diameter	φ D_0	φ 1.55±0.1	
	Pitch	P_0	4.0±0.1	Accumulative Pitch $^{+0.1}_{-0.3}$ MAX./10 Pitch
	Position	E	1.75±0.1	
Distance Between Center-lines	Cross Direction	P_2	2.0±0.05	
	Cross Direction	F	3.5±0.05	
Cover Tape	Width	C	$5.5^{+0.3}_{-0}$	Thickness : 0.1 MAX.
Carrier Tape	Width	W	8.0±0.2	Warpage δ : 0.3 MAX.
	Thickness	T	0.2±0.05	
	Outer Depth of Hole	K_1	1.1±0.1	
Device	Inclination	θ	30° MAX.	
Total Thickness		K	1.15±0.1	

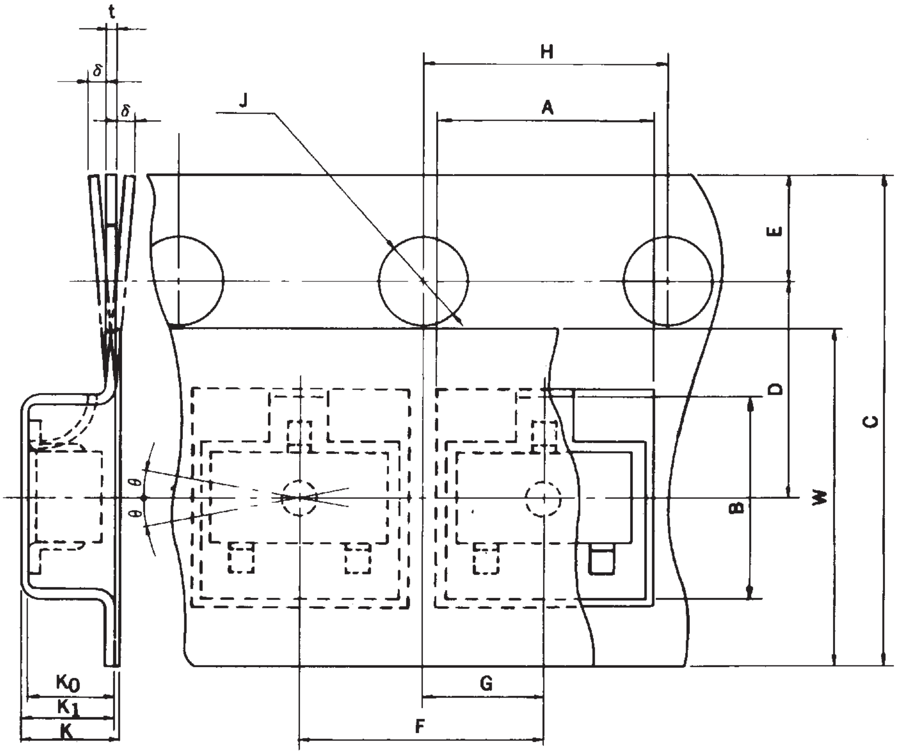
d) 2-PIN POWER MINI MOLD



UNIT : mm

ITEM		SYMBOL	SIZE	REMARKS
Pocket	Length	A	3.0±0.1	
	Width	B	5.2±0.1	
	Depth	K_0	2.3±0.1	
	Pitch	F	4.0±0.1	Accumulated Tolerance $^{+0.1}_{-0.3}$ MAX./10 Pitch
Perforation	Diameter	J	ϕ 1.5±0.1	
	Pitch	H	4.0±0.1	Accumulated Tolerance $^{+0.1}_{-0.3}$ MAX./10 Pitch
	Position	E	1.75±0.1	
Distance Between Center-lines	Length Direction	G	2.0±0.05	
	Width Direction	D	5.5±0.05	
Cover Tape	Width	W	9.5±0.1	Thickness : 0.1 MAX.
Carreir Tape	Width	C	12±0.15	Bend : δ=0.3 MAX.
	Thickness	t	0.3±0.05	
	Depth	K_1	2.4±0.1	
Aire Hole	Diameter	J_1	ϕ 1.5±0.1	
Overall Thickness		K	2.45±0.1	

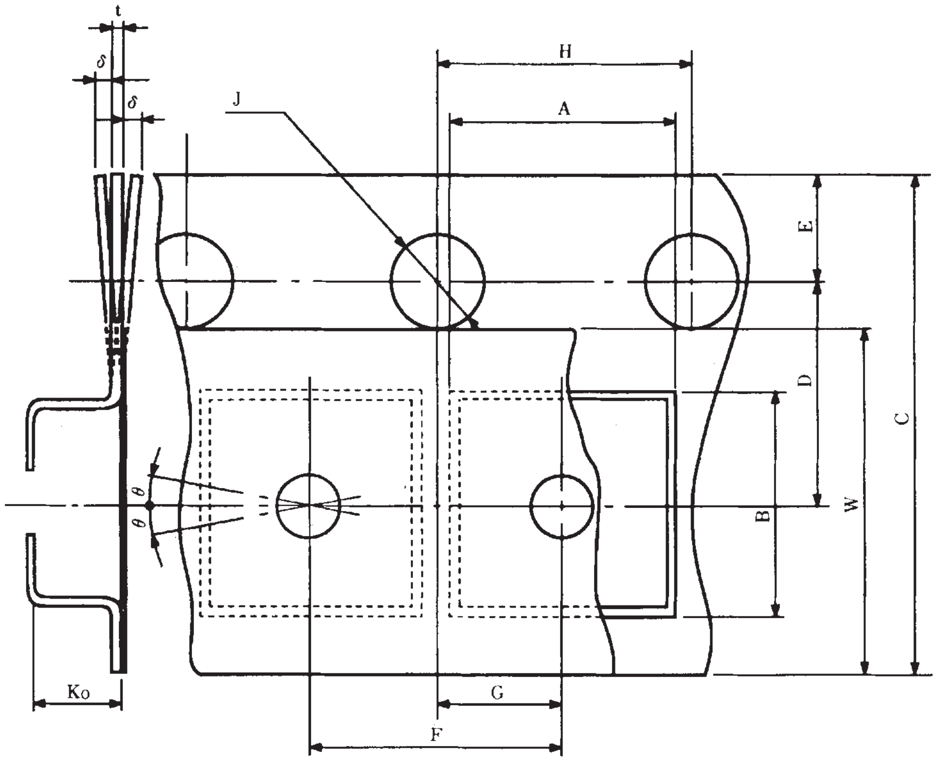
e) 3-PIN SUPER MINI MOLD



UNIT : mm

ITEM		SYMBOL	SIZE	REMARKS
Pocket	Length	A	2.3±0.1	
	Width	B	2.4±0.1	
	Depth	K_0	1.2±0.1	
	Pitch	F	4.0±0.1	Accumulated Tolerance $^{+0.1}_{-0.3}$ MAX./10 Pitch
Perforation	Diameter	J	$1.5^{+0.1}_{-0.05}$	
	Pitch	H	4.0±0.1	Accumulated Tolerance $^{+0.1}_{-0.3}$ MAX./10 Pitch
	Position	E	1.75±0.1	
Distance Between Center-lines	Length Direction	G	2.0±0.05	
	Width Direction	D	3.5±0.05	
Cover Tape	Width	W	5.5±0.1	Thickness : 0.1 MAX.
Carreir Tape	Width	C	8.0±0.2	Bend : δ=0.3 MAX.
	Thickness	t	0.2±0.05	
	Depth	K_1	1.3±0.1	
Device	Outline	See : Outline		
	Tilt	θ	30° MAX.	
Overall Thickness		K	1.35±0.1	

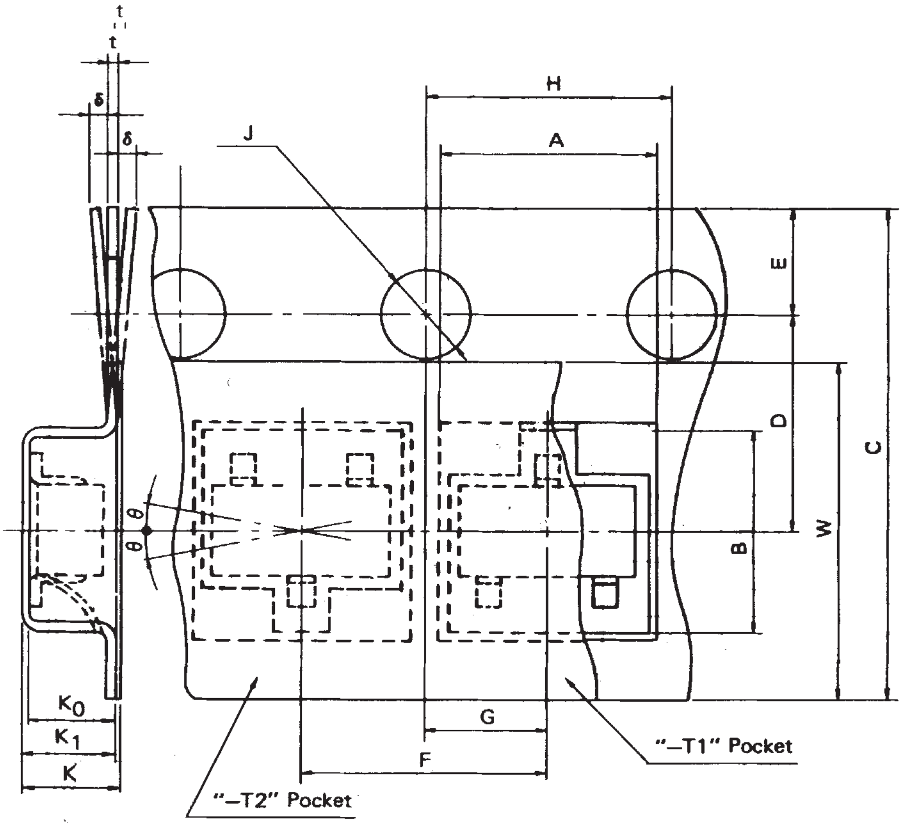
f) 5/6-PIN SUPER MINI MOLD



UNIT: mm

ITEM		SYMBOL	SIZE	REMARKS
Depression Angular Hole for Device Insertion	Length	A	$2.3^{+0.1}_{-0.1}$	Opening Size
	Width	B	$2.6^{+0.1}_{-0.1}$	Opening Size
	Depth	K_O	1.1 ±0.1	Inner Space
	Pitch	F	4.0 ±0.1	Accumulative Pitch $^{+0.1}_{-0.3}$ MAX./10 Pitch
Round Hole for Feeding	Diameter	J	$\phi 1.5^{+0.1}_{-0.05}$	
	Pitch	H	4.0 ±0.1	Accumulative Pitch $^{+0.1}_{-0.3}$ MAX./10 Pitch
	Position	E	1.75±0.1	
Distance Between Center-lines	Length Direction	G	2.0 ±0.05	
	Width Direction	D	3.5 ±0.05	
Cover Tape	Width	W	5.5 ±0.1	Thickness: 0.1 MAX.
Carrier Tape	Width	C	8.0 ±0.2	Warpage δ: 0.3 MAX.
	Thickness	t	0.2 ±0.05	
Device	Tilt	θ	30° MAX.	

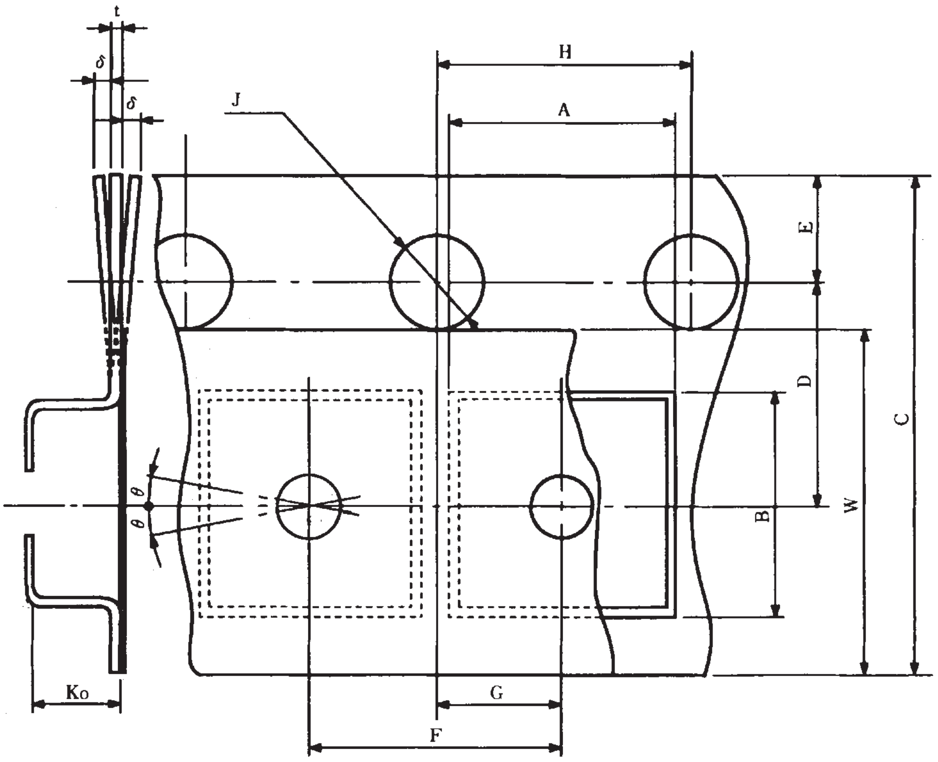
g) 3-PIN MINI MOLD(SC-59)
3-PIN MINI MOLD(Thin Type)



UNIT: mm

ITEM		SYMBOL	SIZE	REMARKS
Pocket	Length	A	$3.35^{+0.1}_{-0.1}$	
	Width	B	$3.2^{+0.1}_{-0.1}$	
	Depth	K_O	1.4±0.1	
	Pitch	F	4.0±0.1	Accumulated Tolerance $^{+0.1}_{-0.3}$Max./10 Pitch
Perforation	Diameter	J	$\phi 1.5^{+0.1}_{-0.05}$	
	Pitch	H	4.0±0.1	Accumulated Tolerance $^{+0.1}_{-0.3}$Max./10 Pitch
	Position	E	1.75±0.1	
Distance Between Centerline	Length Direction	G	2.0±0.05	
	Width Direction	D	3.5±0.05	
Cover Tape	Width	W	$5.5^{+0.3}_{-0}$	Thickness: 0.1 Max.
Carreir Tape	Width	C	8.0±0.2	Bend: δ = 0.3 Max.
	Thickness	t	0.2±0.05	
	Depth	K_1	1.5±0.1	
Device	Outline	See 3.5		
	Tilt	θ	20° Max.	
Overall Thickness		K	1.55±0.1	

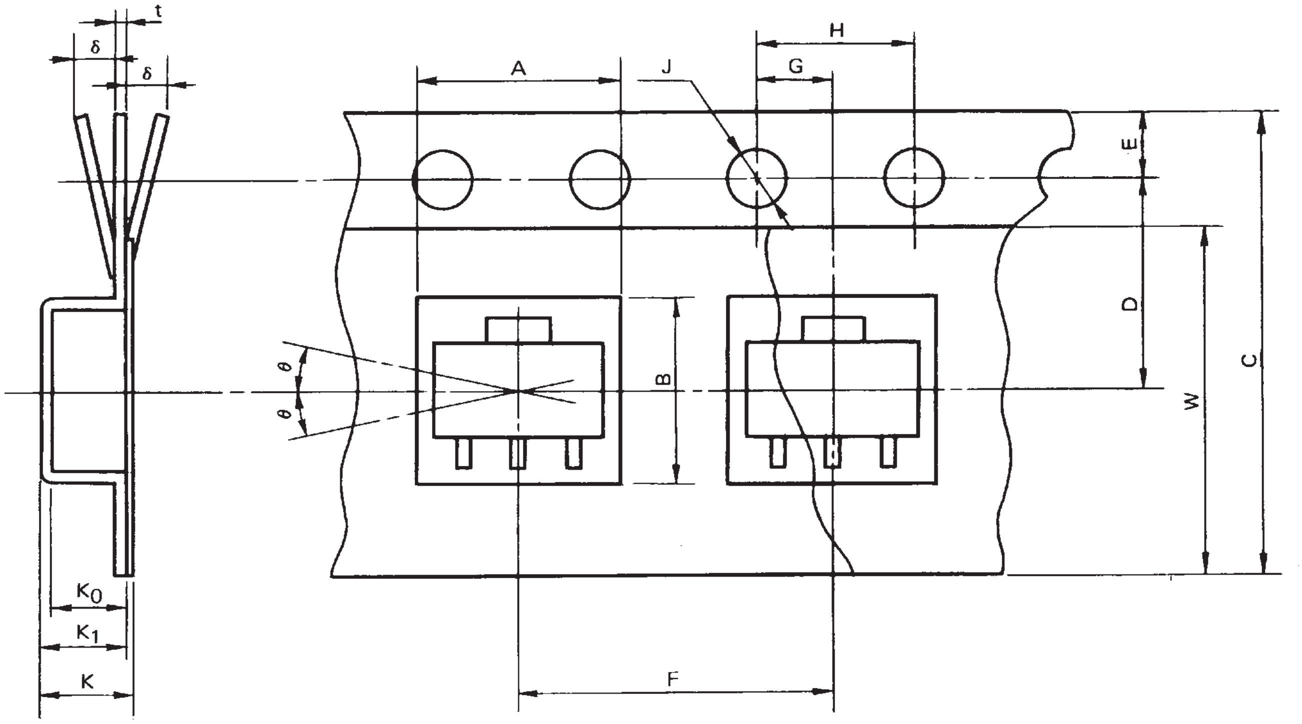
h) 5/6-PIN MINI MOLD
6-PIN MINI MOLD(Thin Type)



UNIT : mm

ITEM		SYMBOL	SIZE	REMARKS
Depression Angular Hole for Device Insertion	Length	A	$3.18^{+0.1}_{-0.1}$	Closed Size
	Width	B	$3.40^{+0.1}_{-0.1}$	Closed Size
	Depth	K_O	1.4 ±0.1	Inner Space
	Pitch	F	4.0 ±0.1	Accumulated Tolerance $^{+0.1}_{-0.3}$ MAX./10 Pitch
Round Hole for Feeding	Diameter	J	$\phi 1.5\ ^{+0.1}_{-0.05}$	
	Pitch	H	4.0 ±0.1	Accumulated Tolerance $^{+0.1}_{-0.3}$ MAX./10 Pitch
	Position	E	1.75±0.1	
Distance Between Center-lines	Length Direction	G	2.0 ±0.05	
	Width Direction	D	3.5 ±0.05	
Cover Tape	Width	W	$5.5\ ^{+0.3}_{-0.}$	
Carrier Tape	Width	C	8.0 ±0.2	Warpage δ: 0.3 MAX.
	Thickness	t	0.3 ±0.05	
Device	Tilt	θ	30° MAX.	

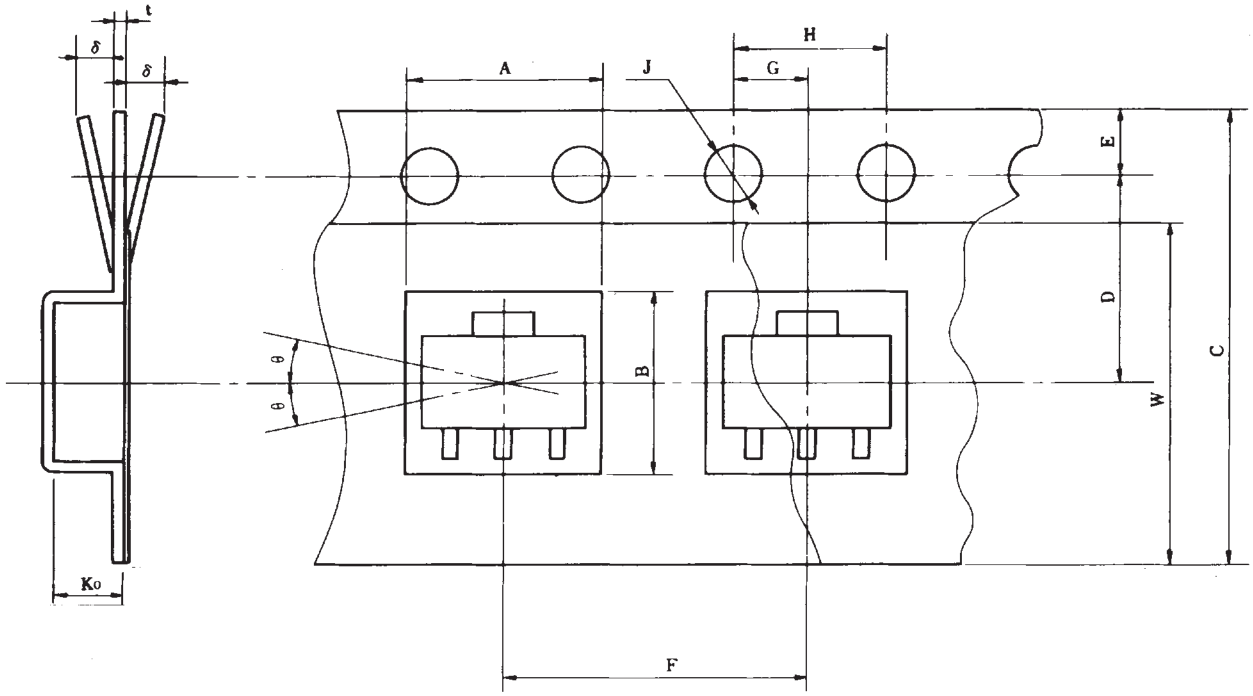
i) 3-PIN POWER MINI MOLD



UNIT: mm

ITEM		SYMBOL	SIZE	REMARKS
Pocket	Length	A	$5.0^{+0.1}_{-0.1}$	
	Width	B	$4.6^{+0.1}_{-0.1}$	
	Depth	K_0	1.8 ±0.1	
	Pitch	F	8.0 ±0.1	Accumulated Tolerance $^{+0.1}_{-0.3}$ Max./10 Pitch
Perforation	Diameter	J	$\phi 1.5^{+0.1}_{-0.05}$	
	Pitch	H	4.0 ±0.1	Accumulated Tolerance $^{+0.1}_{-0.3}$ Max./10 Pitch
	Position	E	1.5 ±0.1	
Distance Between Center-line	Length Direction	G	2.0 ±0.05	
	Width Direction	D	5.65 ±0.05	
Cover Tape	Width	W	$9.5^{+0.3}_{-0}$	Thickness: 0.1 Max.
Carrier Tape	Width	C	12 ±0.2	Bend: δ=0.3 Max.
	Thickness	t	0.3 ±0.05	
	Depth	K_1	2.1 ±0.1	
Device	Outline	SEE 3.5	—	
	Tilt	θ	30° MAX.	
Overall Thickness		K	2.15 ±0.1	

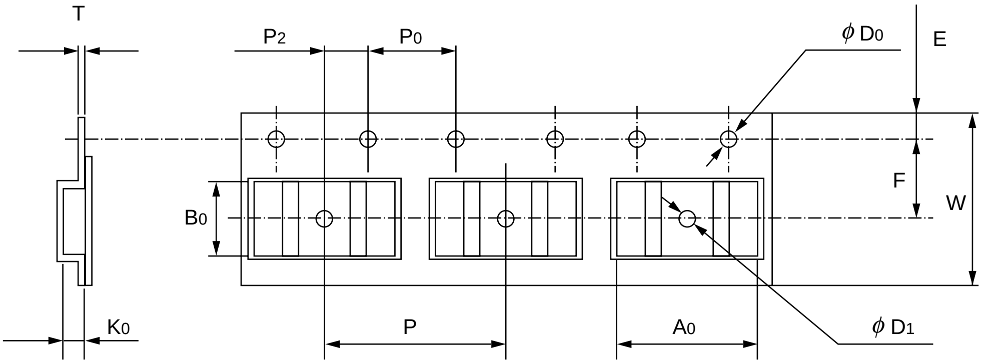
j) SC-84(MP-2)



UNIT : mm

ITEM		SYMBOL	SIZE	REMARKS
Depression Angular Hole for Device Insertion	Length	A	6.1 ±0.1	Opening Size
	Width	B	5.95±0.1	Opening Size
	Depth	K_O	1.8 ±0.1	Inner Space
	Pitch	F	8.0 ±0.1	Accumulative Pitch $^{+0.1}_{-0.3}$ MAX./10 Pitch
Round Hole for Feeding	Diameter	J	$\phi 1.5\ ^{+0.1}_{-0.05}$	
	Pitch	H	4.0 ±0.1	Accumulative Pitch $^{+0.1}_{-0.3}$ MAX./10 Pitch
	Position	E	1.75+0.1	
Distance Between Center-lines	Length Direction	G	2.0 ±0.05	
	Width Direction	D	5.5 ±0.05	
Cover Tape	Width	W	$9.5\ ^{+0.3}_{-0}$	Thickness : 0.1 MAX.
Carrier Tape	Width	C	12.0±0.2	Warpage δ : 0.3 MAX.
	Thickness	t	0.3 ±0.05	
Device	Tilt	θ	30° MAX.	

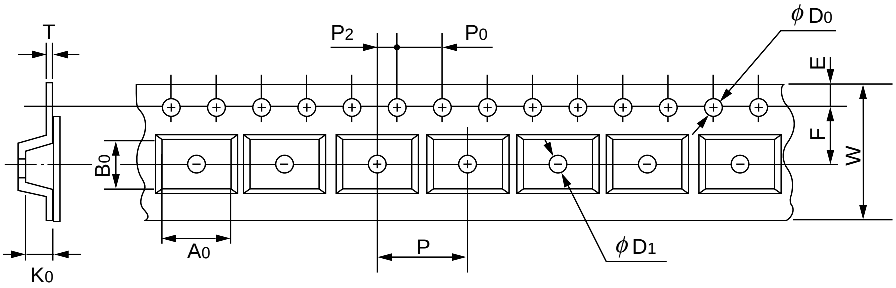
k) Power TSSOP8



(UNIT: mm)

SYMBOL	SIZE
A_0	7.0MAX.
B_0	3.7MAX.
K_0	1.7
W	12±0.3
F	5.5±0.1
E	1.75±0.1
P	8.0±0.1
P_2	2.0±0.1
P_0	4.0±0.1
D_0	1.5+0.1/-0
T	0.3
D_1	1.5MIN.

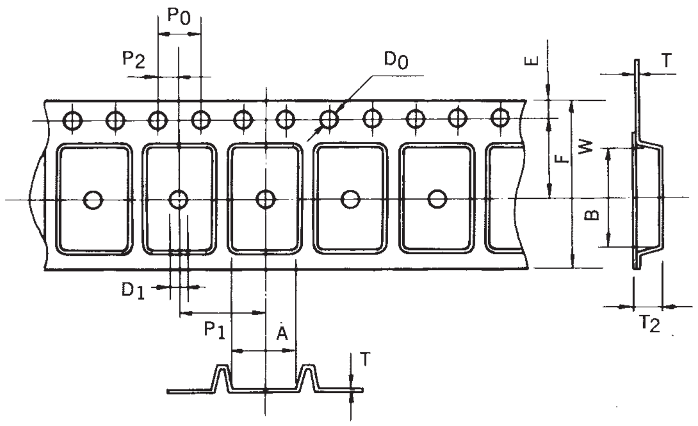
l) Power SOP8



(UNIT: mm)

SYMBOL	SIZE
A0	6.95MAX.
B0	5.55MAX.
K0	1.8
W	12±0.3
F	5.5±0.1
E	1.75±0.1
P	8±0.1
P2	2±0.1
P0	4±0.1
D0	1.5+0.1/-0
T	0.3
D1	1.5MIN.

m) TO-252(MP-3Z)

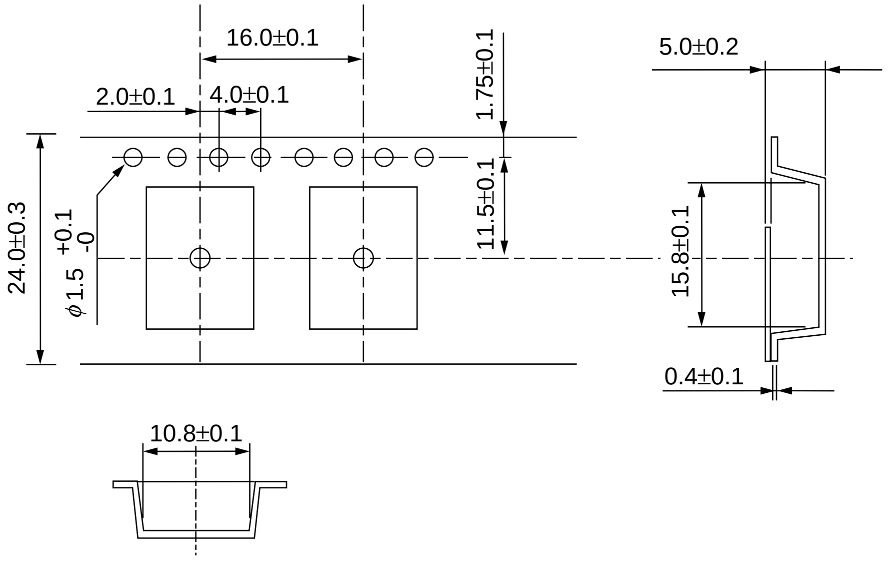


UNIT : mm

SYMBOL	SIZE
A	7.1 MAX.
B	10.7 MAX.
D_0	$\phi\,1.5^{+0.1}_{-0}$
D_1	ϕ 1.5 MIN.
E	1.75±0.1
F	7.5±0.1
P_0	4.0±0.1
P_1	8.0±0.1
P_2	2.0±0.1
T	0.2
T_2	2.7±0.1
W	16.0±0.3

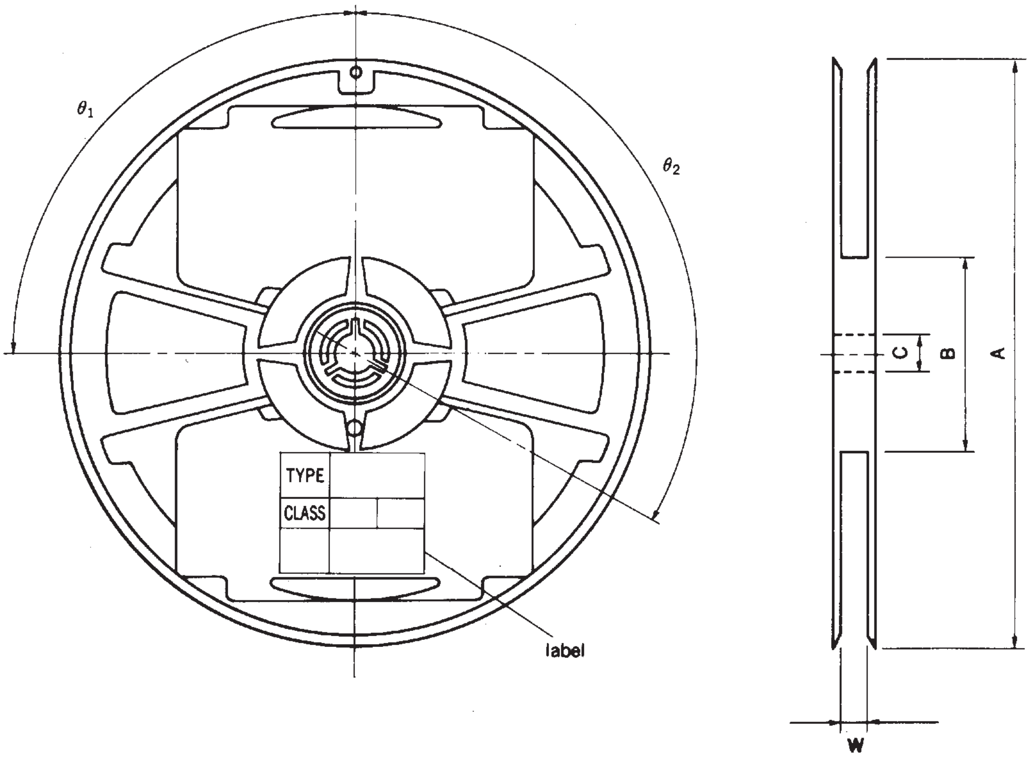
n) TO-263

UNIT: mm



DIMENSIONS ON REEL

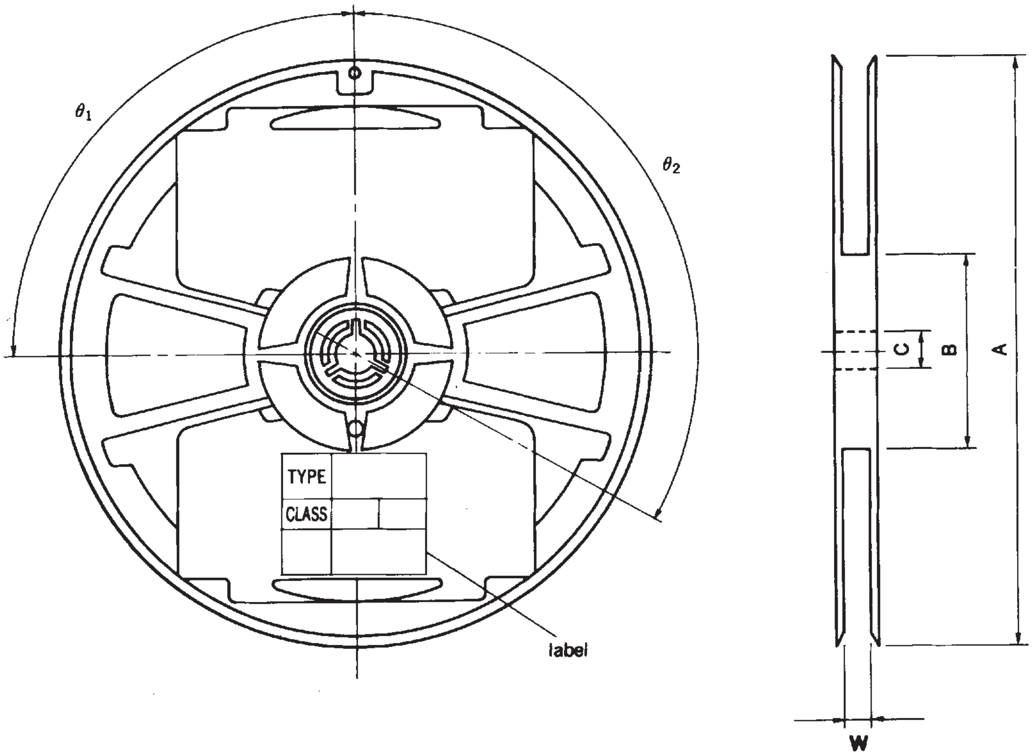
a) 2/3-PIN ULTRA SUPER MINI MOLD
2/3/5/6-PIN SUPER MINI MOLD
3/5/6-PIN MINI MOLD
3/6-PIN MINI MOLD(Thin Type)



UNIT : mm

ITEM		SYMBOL	SIZE	REMARKS
Flange	Diameter	A	$\phi178\pm2$	
	Space Between Flanges	W	9 ± 0.5	
Hub	Outer Diameter	B	$\phi60\pm1$	
	Slit Location	θ_1	90°	
	Spindle Hole Diameter	C	$\phi13\pm0.5$	
	Key Slit Location	θ_2	120°	
Marking				Type no., quantity and lot code are marked or labeled.

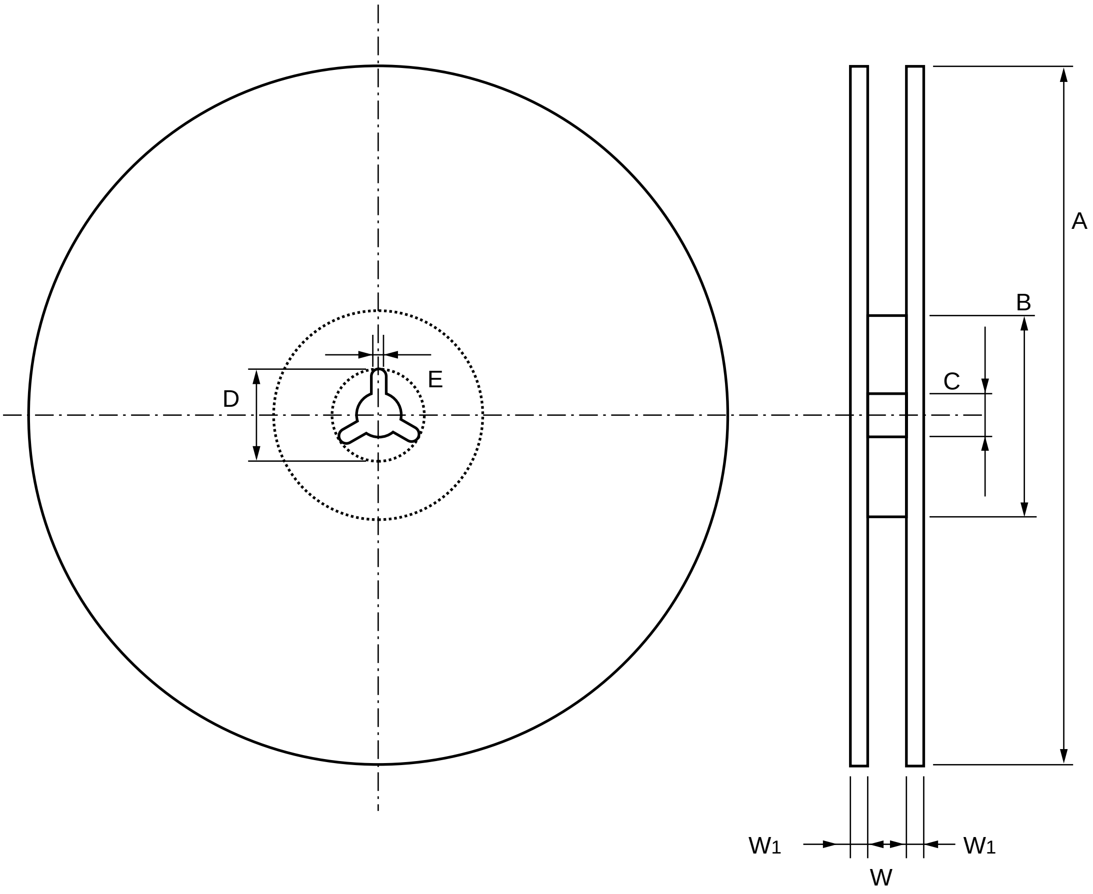
b) 2-PIN POWER MINI MOLD
3-PIN POWER MINI MOLD
SC-84(MP-2)



UNIT : mm

ITEM		SYMBOL	SIZE	REMARKS
Flange	Diameter	A	$\phi178 \pm 2$	
	Space Between Flanges	W	13 ± 0.5	
Hub	Outer Diameter	B	$\phi60 \pm 1$	
	Slit Location	θ_1	90°	
	Spindle Hole Diameter	C	$\phi13 \pm 0.5$	
	Key Slit Location	θ_2	120°	
Marking				Type no., quantity and lot code are marked or labeled.

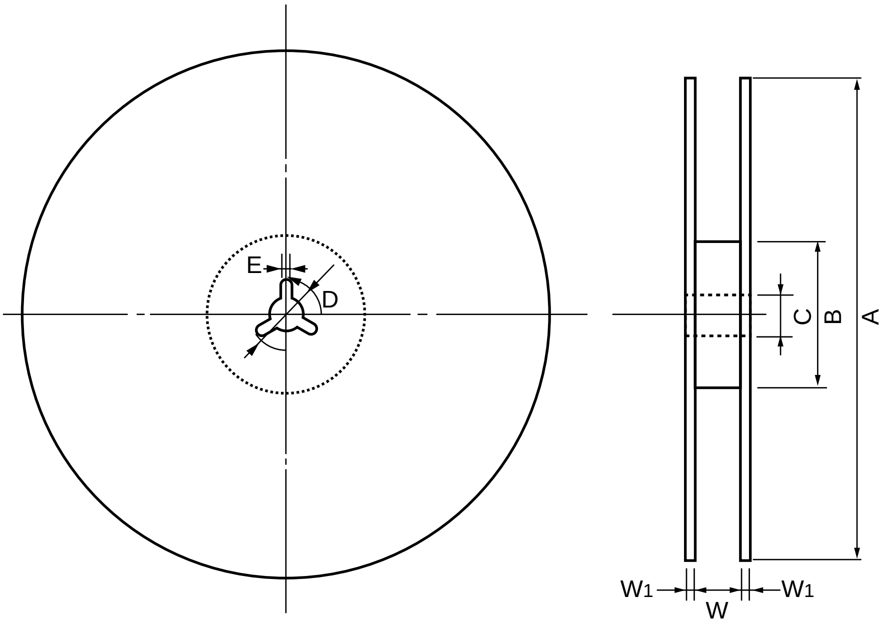
c) Power TSSOP8



(UNIT: mm)

SYMBOL	SIZE
A	ϕ 330±2.0
B	ϕ 100
C	ϕ 13±0.2
D	ϕ21±0.8
E	2.0±0.5
W	13.4
W_1	2.0±0.5

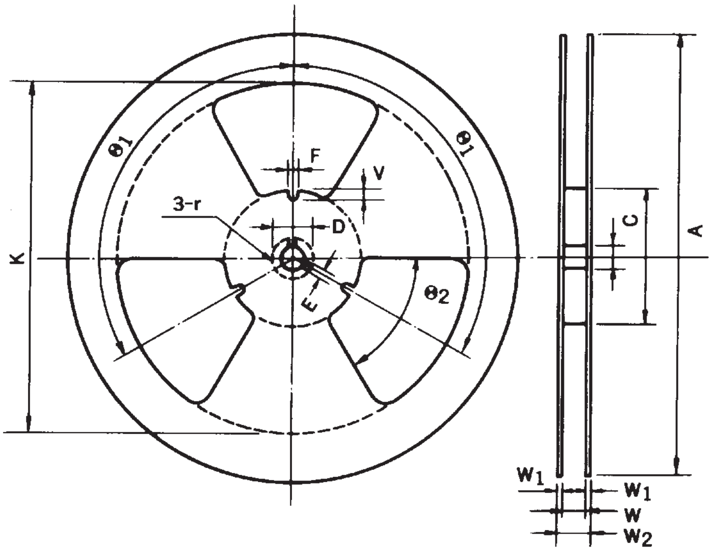
d) Power SOP8



(UNIT: mm)

SYMBOL	SIZE
A	ϕ 330±2.0
B	ϕ100
C	ϕ 13±0.2
D	ϕ21±0.8
E	2.0±0.5
W	13.4
W_1	2.0±0.5

e) TO-252(MP-3Z)

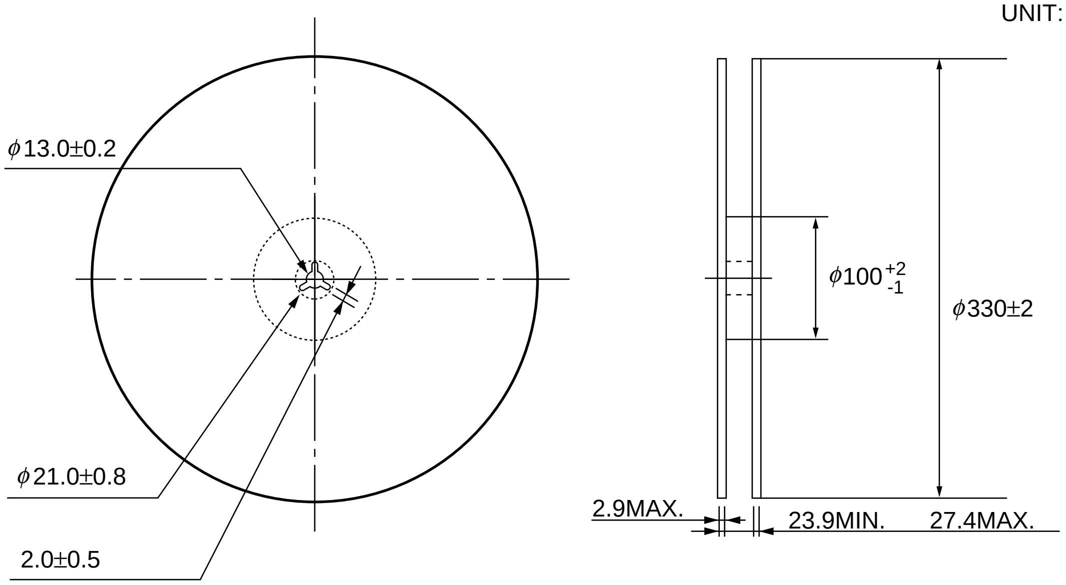


UNIT : mm

SYMBOL	SIZE
A	329
B	100
C	13±0.5
D	21±0.8
E	2.0±0.5
F	2
V	8
W	$16.4^{+2.0}_{-0}$
W_1	(2.5)
W_2	22.4 MAX.
K	260
r	1.0
Θ_1	120
Θ_2	60

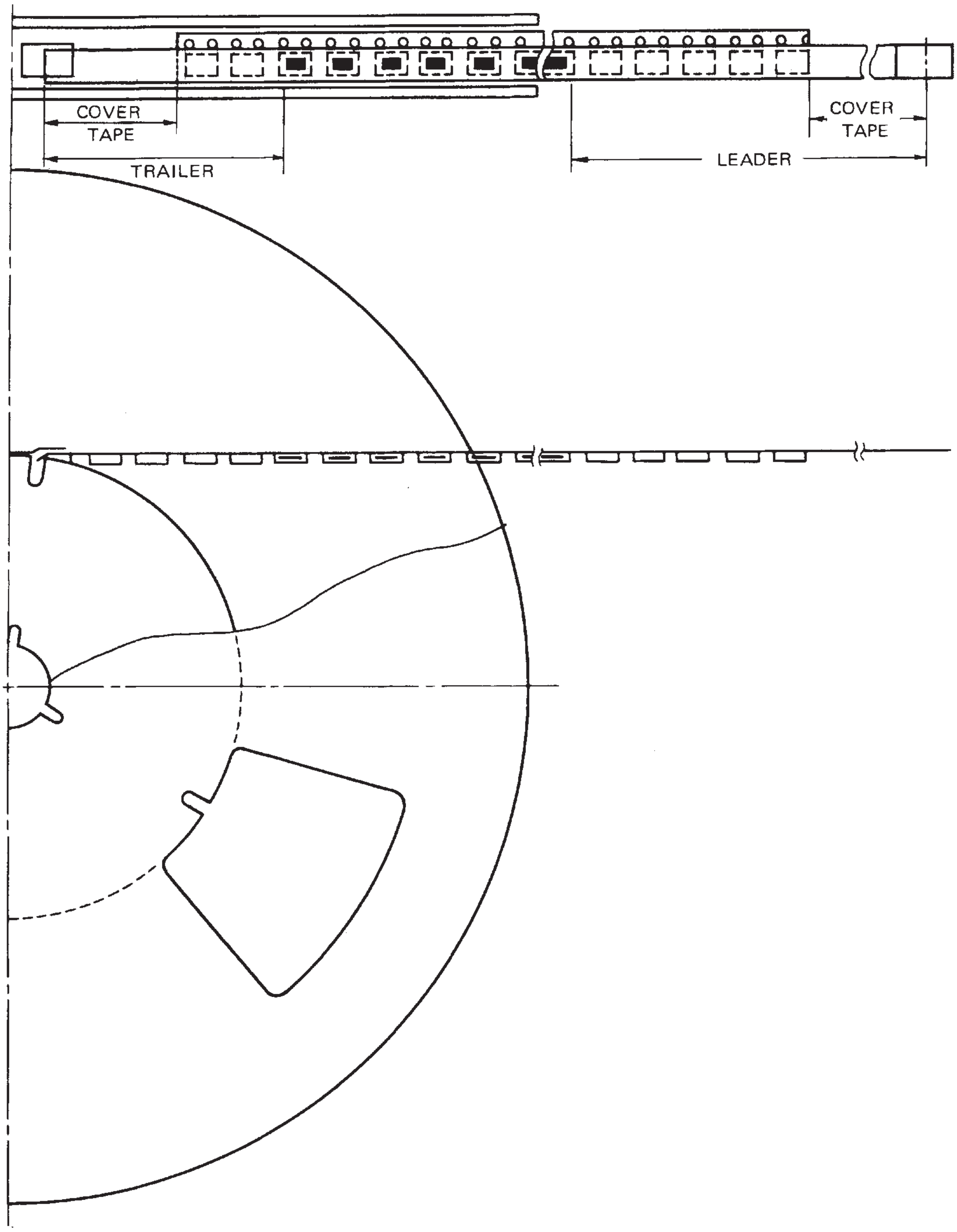
f) TO-263

UNIT: mm



PACKAGING

LEADER AND TRAILER

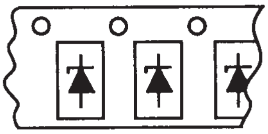


ITEM		SPECIFICATION	REMARKS
Leader	Cover Tape	Cover tape without carrier 200 mm MIN.	Tip taped to rool
	Carrier Tape	Empty pocket 10 MIN.	Take up direction as the above
Trailer	Carrier Tape	Empty pocket 10 MIN.	

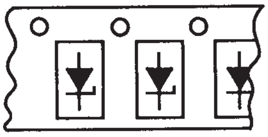
DEVICE ORIENTATION

As shown below

1) 2-PIN ULTRA SUPER, SUPER, POWER MINI MOLD

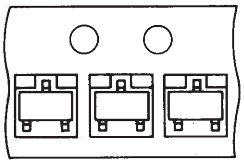


T1 TYPE

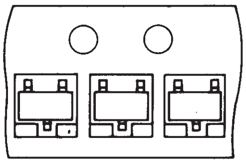


T2 TYPE

2) 3-PIN ULTRA SUPER/SUPER/MINI MOLD/MINI MOLD(Thin Type)



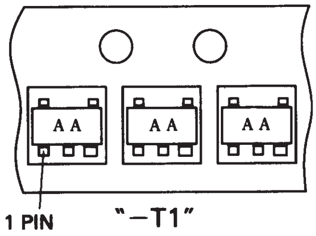
T1 TYPE
−T1B TYPE*



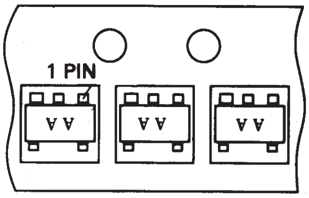
T2 TYPE
−T2B TYPE*

• Applied to 3-PIN MINI MOLD/3-PIN MINI MOLD (Thin Type)

5/6-PIN SUPER MINI MOLD
5/6-PIN MINI MOLD
6-PIN MINI MOLD(Thin Type)

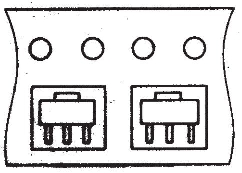


“−T1”

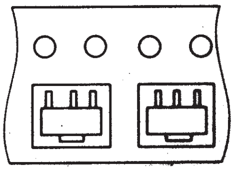


“−T2”

3) 3-PIN POWER MINI MOLD/SC-84

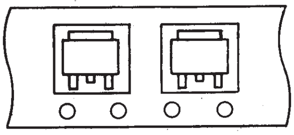


T1 TYPE

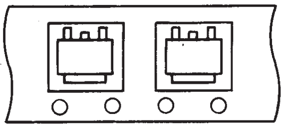


T2 TYPE

4) TO-252



E1 TYPE



E2 TYPE

5) TO-263