

Recommended P/N 20593-0**E-01

PART NO.	Pos.	A	B	C	D
20593-008E-01#	8	7.50	3.50	4.55	8.10
20593-010E-01#	10	8.50	4.50	5.55	9.10
20593-012E-01#	12	9.50	5.50	6.55	10.10
20593-014E-01#	14	10.50	6.50	7.55	11.10
20593-018E-01#	18	12.50	8.50	9.55	13.10
20593-020E-01#	20	13.50	9.50	10.55	14.10
20593-022E-01#	22	14.50	10.50	11.55	15.10
20593-024E-01#	24	15.50	11.50	12.55	16.10
20593-030E-01#	30	18.50	14.50	15.55	19.10
20593-034E-01#	34	20.50	16.50	17.55	21.10
20593-036E-01#	36	21.50	17.50	18.55	22.10
20593-038E-01#	38	22.50	18.50	19.55	23.10
20593-040E-01#	40	23.50	19.50	20.55	24.10
20593-045E-01#	45	26.00	22.00	23.05	26.60
20593-050E-01#	50	28.50	24.50	25.55	29.10
◆20593-060E-01#	60	33.50	29.50	30.55	34.10

◆MARK MEANS NOT AVAILABLE.

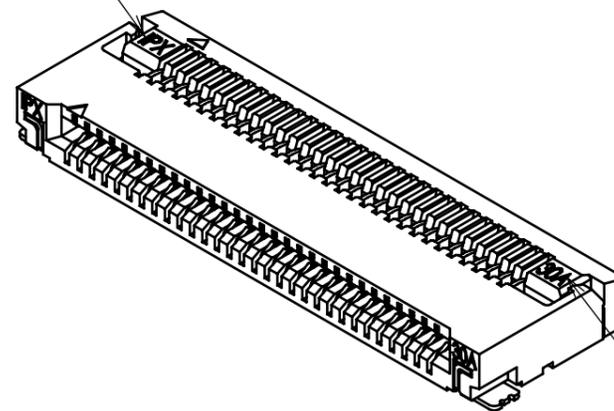
P/N : 20593-0**E- 01 M

WITHOUT : 2,000pcs/REEL
WITH : 500pcs/REEL

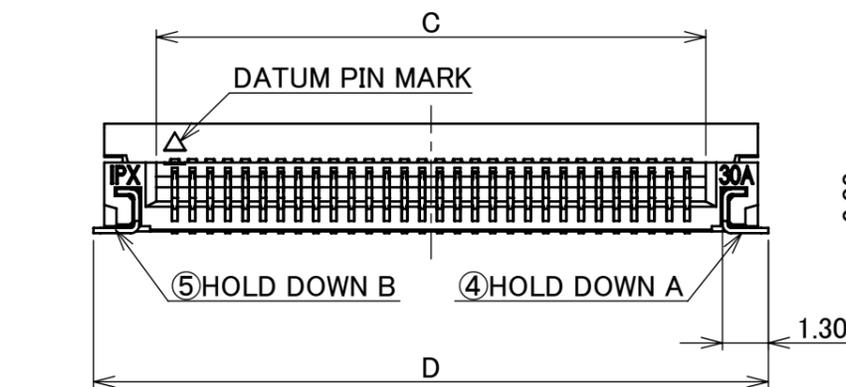
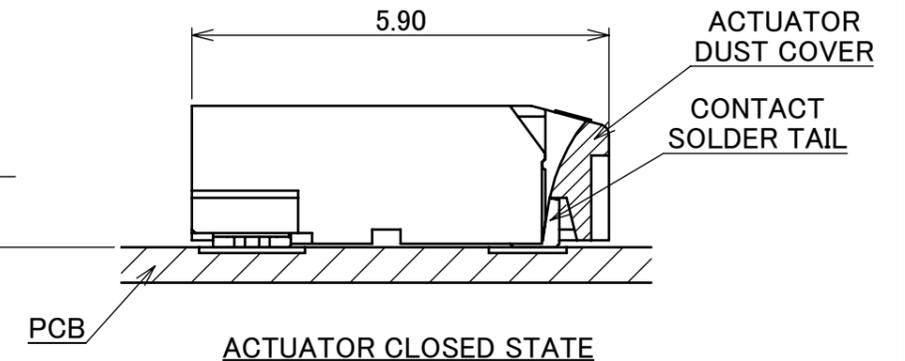
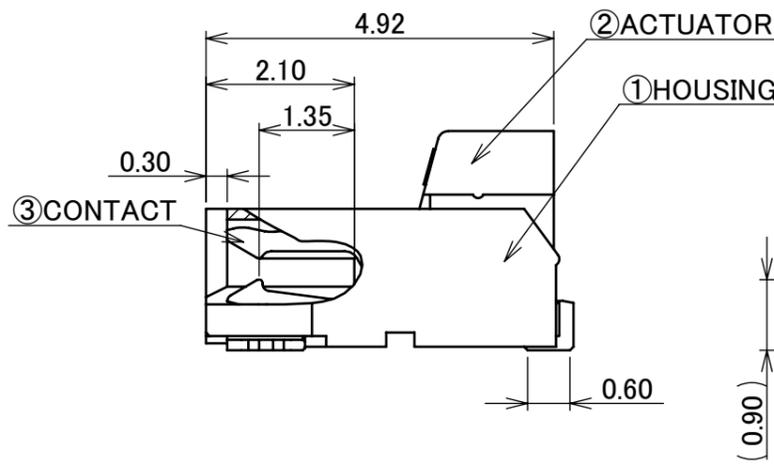
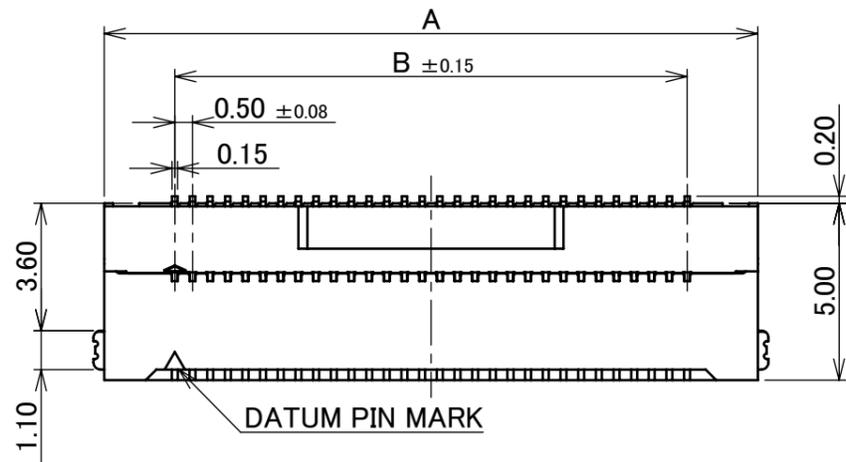
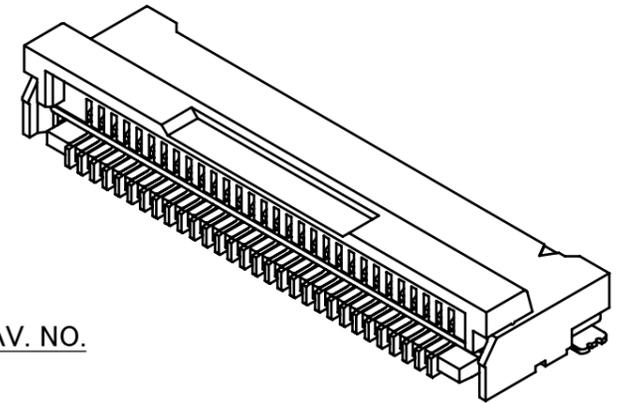
Pos.



LOGO MARK



POS. & CAV. NO.



NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
5	HOLD DOWN B	PHOSPHOR BRONZE	Sn 2.00 μ m MIN. OVER Ni 1.00 μ m MIN.
4	HOLD DOWN A	PHOSPHOR BRONZE	Sn 2.00 μ m MIN. OVER Ni 1.00 μ m MIN.
3	CONTACT	PHOSPHOR BRONZE	Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN.
2	ACTUATOR	LCP	UL94V-0, BLACK
1	HOUSING	LCP	UL94V-0, BEIGE

NOTES

1. CONTACT POINT : Top and Bottom



VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL NO. HIM-06004 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.

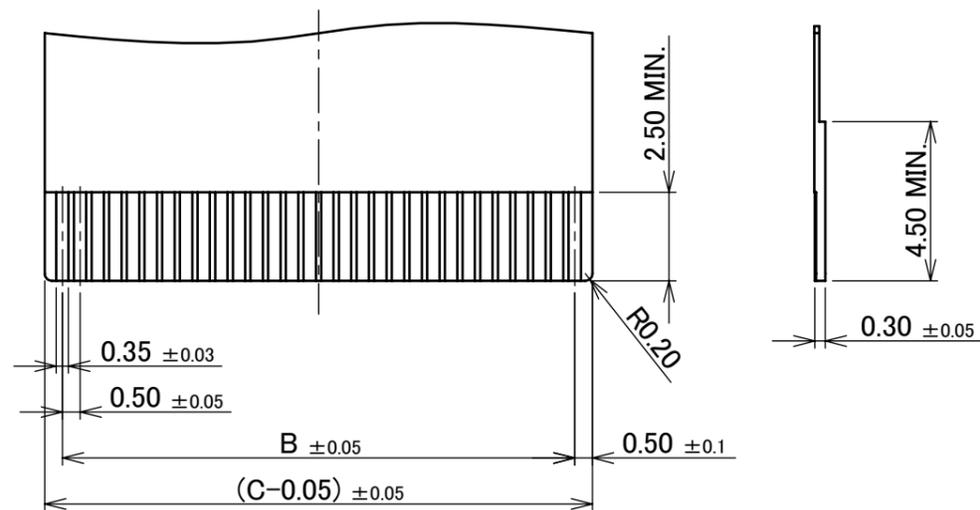
REV.	ECN	BY	DATE	APP.	DATE	DATE	DATE	DWG. No.	20593	SIZE	A3	SHEET	1/6	REV.	12
12	Z200580	M.M	June/05/'20	Y.S	ANGLE	±2°	6 OVER 30 MAX.	±0.3	PROJECTION	MINIFLEX® 5-BF III	SCALE	5:1	I-PEX	CUSTOMER COPY	
11	Z191435	K.H	Nov./01/'19	Y.S	6 MAX.	±0.2	30 OVER 120 MAX.	±0.5	SERIES No.		R1				UNIT
10	Z191257	S.Sh	Sept./19/'19	H.I	GENERAL TOLERANCE.			TITLE							
9	Z181342	T.O	Oct./15/'18	H.I	DWG.	H.Ikari	Mar./05/'14								
8	Z181028	T.O	Aug./03/'18	H.I	CHK.	J.Tateishi	Mar./05/'14								
7	Z171133	H.A	Sept/29/'17	H.I	APP.	E.Kawabe	Mar./05/'14								

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC/DC (PER CONTACT)
RATING AMPERAGE	0.5A AC/DC (PER CONTACT)/ 13A AC/DC(TOTAL)
OPERATING TEMPERATURE	233~358K(-40°C~+85°C)
OPERATING HUMIDITY	20~85%RH (NON-CONDENSING, NON-FREEZING)
CONTACT RESISTANCE	INITIAL: 50mohm MAX. / AFTER TEST: 70mohm MAX.
INSULATION RESISTANCE	100Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	20 CYCLES
ACTUATOR LOCKING FORCE (INITIAL / 20 CYCLES)	INITIAL / 20 CYCLES: 0.50N (51gf) × nN MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20 CYCLES)	INITIAL / 20 CYCLES: 0.10N (10gf) × nN MIN.
FPC/FFC RETENTION FORCE	INITIAL / 20 CYCLES: 0.18N (18gf) × nN MIN.
COPLANARITY	0.10mm MAX.
PRODUCT SPECIFICATION	PRS-1937
TEST REPORT	TR-14023
PACKING STANDARD	PST-14015
INSTRUCTION MANUAL	HIM-06004
APPEARANCE CRITERIA No.	QLS-A***

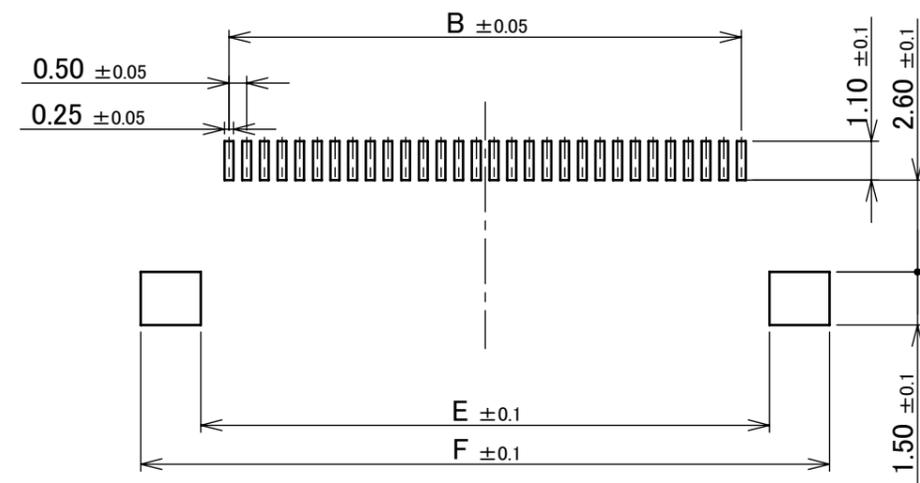
ANGLE	±2°	6 OVER 30 MAX.	±0.3	PROJECTION 	SERIES No. R1	CUSTOMER COPY
6 MAX.	±0.2	30 OVER 120 MAX.	±0.5			
GENERAL TOLERANCE.				TITLE MINIFLEX® 5-BF III	SCALE	UNIT mm
DWG.	DATE					
CHK.	DATE					
APP.	DATE					
				DWG. No.	20593	SIZE A3
				SHEET 2/6		REV. 12

PART No.	Pos.	B	C	E	F
20593-008E-01#	8	3.50	4.55	5.10	8.50
20593-010E-01#	10	4.50	5.55	6.10	9.50
20593-012E-01#	12	5.50	6.55	7.10	10.50
20593-014E-01#	14	6.50	7.55	8.10	11.50
20593-018E-01#	18	8.50	9.55	10.10	13.50
20593-020E-01#	20	9.50	10.55	11.10	14.50
20593-022E-01#	22	10.50	11.55	12.10	15.50
20593-024E-01#	24	11.50	12.55	13.10	16.50
20593-030E-01#	30	14.50	15.55	16.10	19.50
20593-034E-01#	34	16.50	17.55	18.10	21.50
20593-036E-01#	36	17.50	18.55	19.10	22.50
20593-038E-01#	38	18.50	19.55	20.10	23.50
20593-040E-01#	40	19.50	20.55	21.10	24.50
20593-045E-01#	45	22.00	23.05	23.60	27.00
20593-050E-01#	50	24.50	25.55	26.10	29.50
◆20593-060E-01#	60	29.50	30.55	31.10	34.50

◆ MARK MEANS NOT AVAILABLE.



RECOMMENDED FPC/FFC LAYOUT

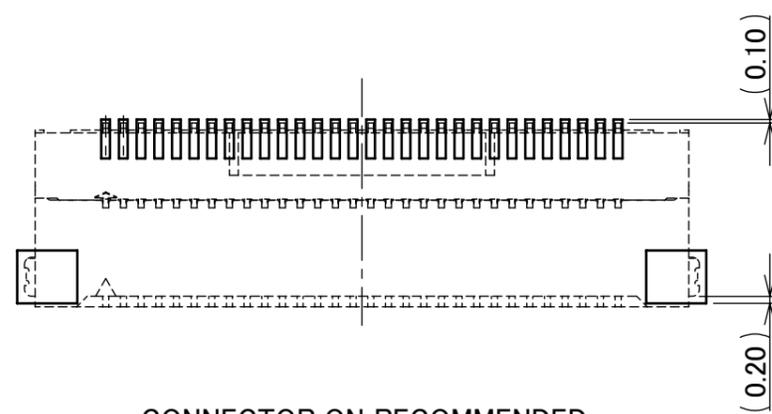


RECOMMENDED PCB LAYOUT & METAL MASK LAYOUT
METAL MASK THICKNESS : t=0.12mm

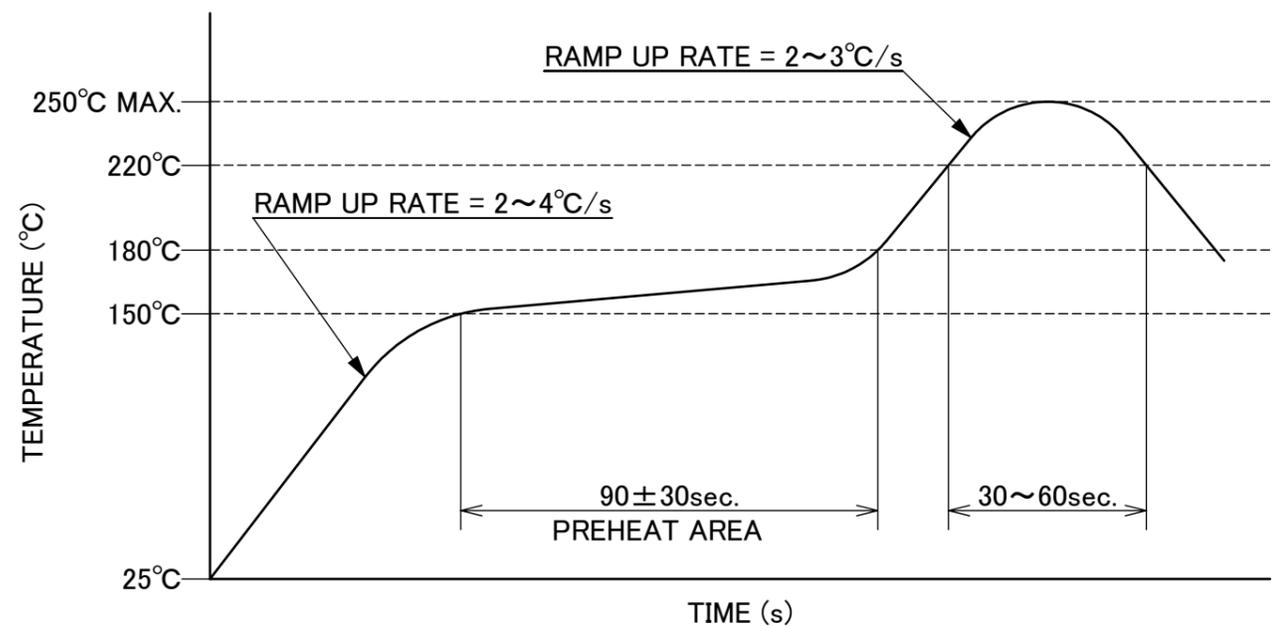
NOTES.

- THIS AREA CANNOT MOUNT ANOTHER COMPONENTS.
- SOLDER RESIST SHALL BE APPLIED TO PREVENT SHORT CIRCUITS WHEN PLACING SIGNAL LINES ON GROUND AREA.

ANGLE	±2°	6 OVER 30 MAX.	±0.3	PROJECTION ⊕	SERIES No. R1	CUSTOMER COPY
6 MAX.	±0.2	30 OVER 120 MAX.	±0.5			
GENERAL TOLERANCE.				TITLE MINIFLEX® 5-BF III	SCALE 5:1	UNIT mm
DWG.	DATE					
CHK.	DATE					
APP.	DATE					
				DWG. No.	20593	SIZE A3
				SHEET 3/6		REV. 12



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN LAYOUT



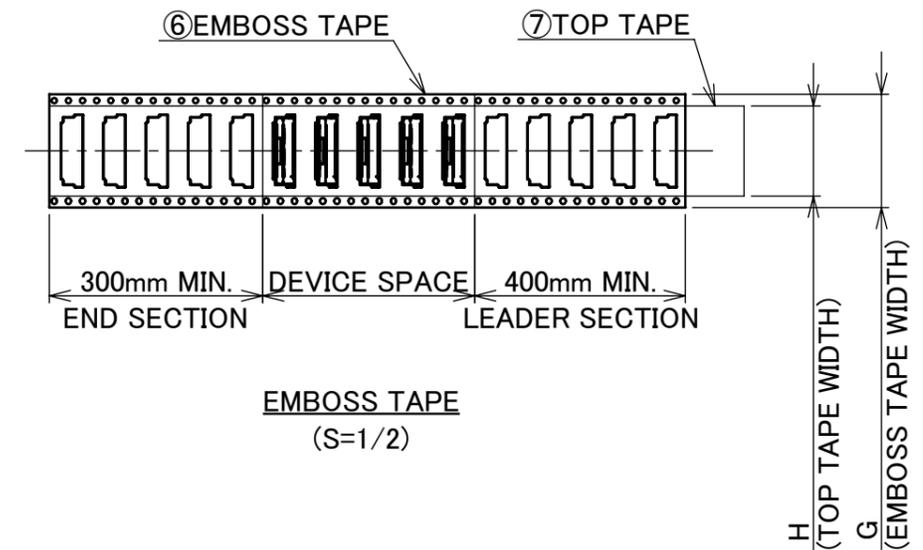
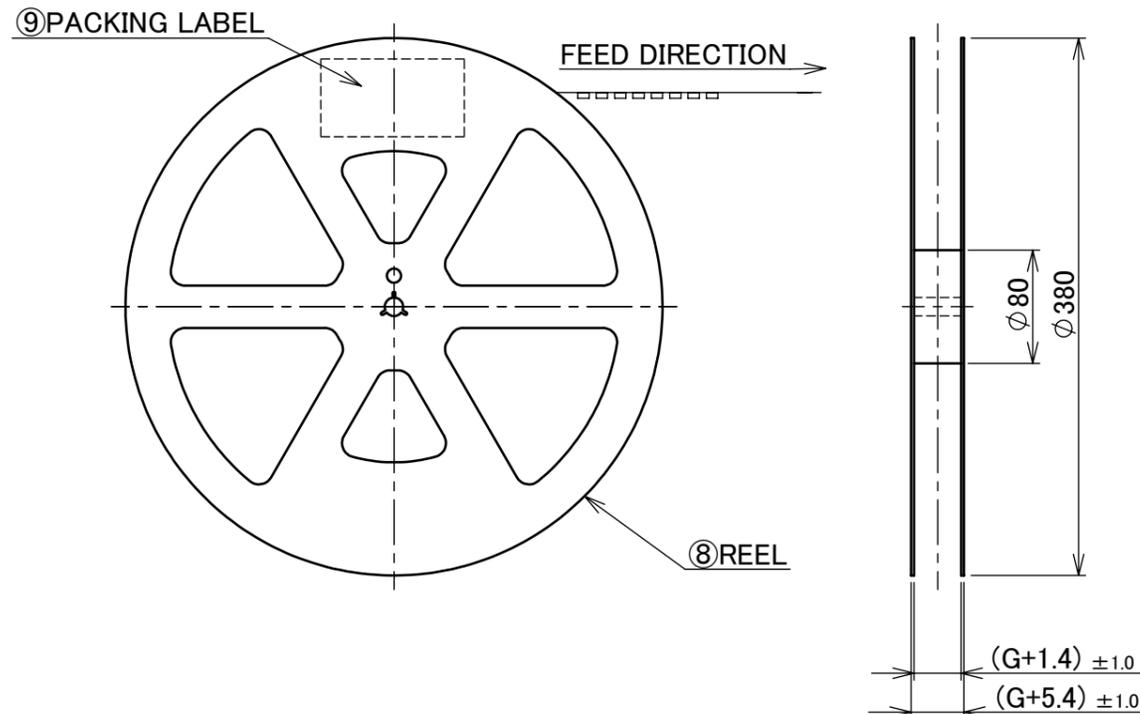
REFLOW TEMPERATURE PROFILE
 SENJU METAL INDUSTRY CO., LTD. : M705-SHF(Sn96.5 Ag3.0 Cu0.5)

ANGLE	±2°	6 OVER 30 MAX.	±0.3	PROJECTION 	SERIES No. R1	CUSTOMER COPY	
6 MAX.	±0.2	30 OVER 120 MAX.	±0.5				
GENERAL TOLERANCE.				TITLE		SCALE	
DWG.	DATE			MINIFLEX® 5-BF III		5:1	
CHK.	DATE					UNIT	
APP.	DATE			DWG. No. 20593		mm	
						SIZE	SHEET 4/6 REV. 12
						A3	

DEVICE P/N	G	H	QTY. PER EMBOSS REEL (PIECES / REEL)	QTY. PER PACKING CARTON (REELS / CARTON)
20593-008E-01	16.00	13.30	2000 / REEL	5 / CARTON = 10000
20593-010E-01				
20593-012E-01				
20593-014E-01				
20593-018E-01				
20593-020E-01				
20593-022E-01				
20593-024E-01				
20593-030E-01				
20593-033E-01				
20593-034E-01	32.00	25.50	4 / CARTON = 8000	
20593-036E-01	44.00	32.30	3 / CARTON = 6000	
20593-038E-01				
20593-040E-01				
20593-045E-01				
20593-050E-01				
20593-055E-01				
20593-060E-01	56.00	49.40	2 / CARTON = 4000	

DEVICE P/N	QTY. PER EMBOSS REEL (PIECES / REEL)	QTY. PER PACKING CARTON (REELS / CARTON)
20593-008E-01M	500 / REEL	1 / CARTON = 500
20593-010E-01M		
20593-012E-01M		
20593-014E-01M		
20593-018E-01M		
20593-020E-01M		
20593-022E-01M		
20593-024E-01M		
20593-030E-01M		
20593-033E-01M		
20593-034E-01M		
20593-036E-01M		
20593-038E-01M		
20593-040E-01M		
20593-045E-01M		
20593-050E-01M		
20593-055E-01M		
20593-060E-01M		

◆ MARK MEANS NOT AVAILABLE



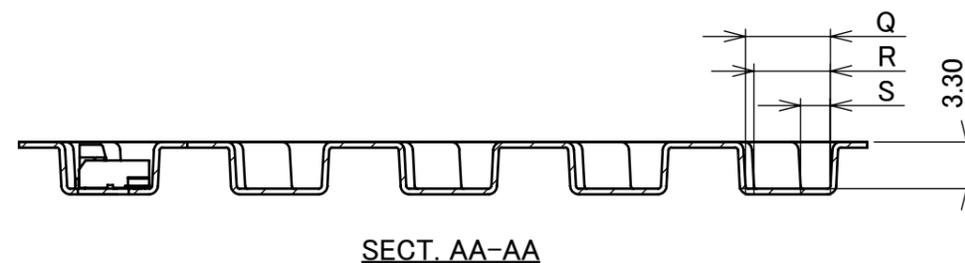
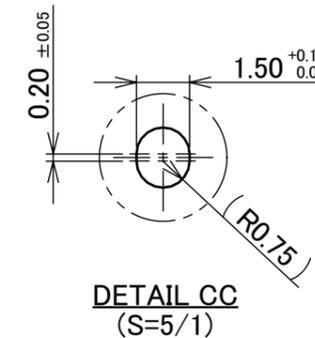
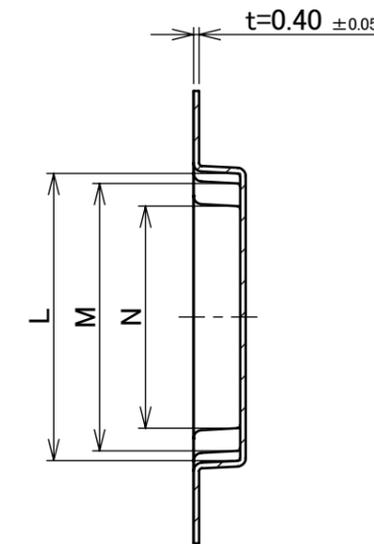
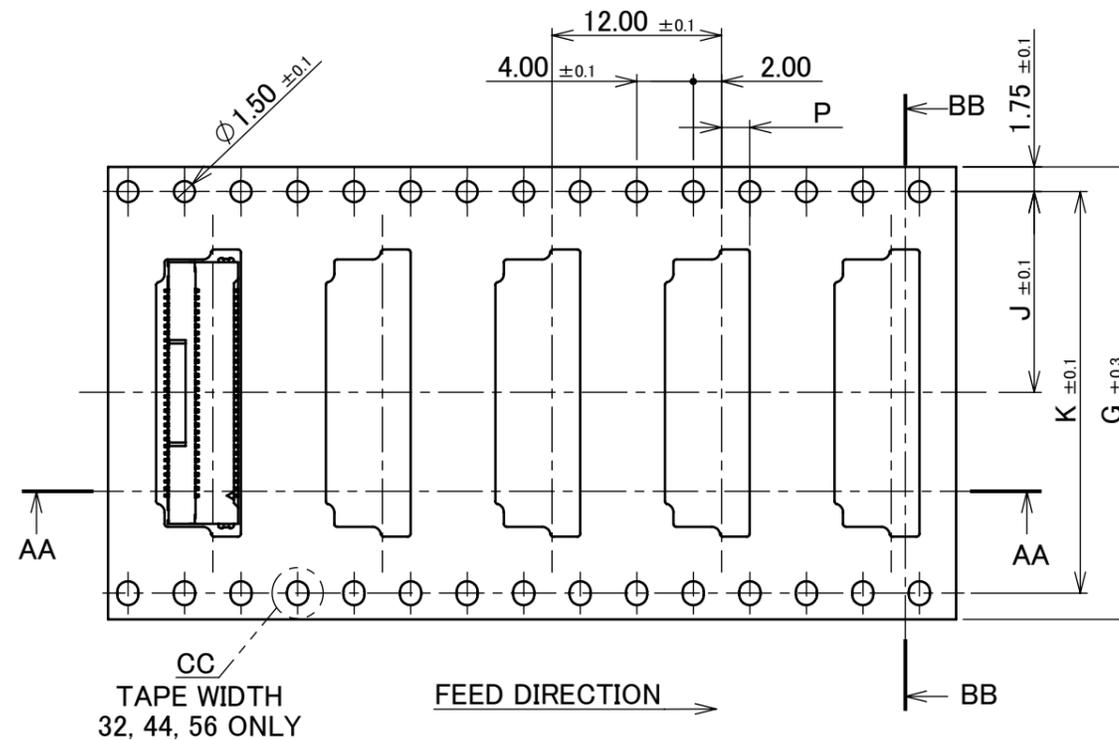
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
9	PACKING LABEL	-	-
8	REEL	PS	-
7	TOP TAPE	PET t=0.061 TRANSPARENCY	ADHESIVE TYPE
6	EMBOSS TAPE	PS t=0.4 TRANSPARENCY	-

- NOTES.
- TAPING SPECIFICATION FOLLOWS JIS C 0806 (IEC 60286-3).
 - MAKE EMPTY SECTION OF LEADER AND END ON EACH END OF THE TAPE.
 - TOP TAPE SHALL NOT STICK OUT FROM EMBOSS TAPE.
 - TOP TAPE SHALL NOT COVER FEED HOLE.

ANGLE	±2°	6 OVER 30 MAX.	±0.3	PROJECTION	SERIES No.	CUSTOMER COPY
6 MAX.	±0.2	30 OVER 120 MAX.	±0.5		R1	
GENERAL TOLERANCE.				TITLE	SCALE	
DWG.	DATE			MINIFLEX® 5-BF III	1:5	
CHK.	DATE				UNIT	
APP.	DATE			DWG. No.	mm	
				20593	SIZE	
					A3	
					SHEET 5/6 REV. 12	

DEVICE P/N		G	J	K	L	M	N	P	Q	R	S	
	20593-008E-01	20593-008E-01M	16.00	7.50	-	9.30	7.90	4.65	1.80	5.80	5.20	1.90
	20593-010E-01	20593-010E-01M	24.00	11.50	-	10.30	8.90	5.65	2.00	6.00	5.40	2.10
	20593-012E-01	20593-012E-01M				11.30	9.90	6.65	1.80	5.80	5.20	1.90
	20593-014E-01	20593-014E-01M				12.30	10.90	7.65	1.80	5.80	5.20	1.90
	20593-018E-01	20593-018E-01M				14.30	12.90	9.65	1.80	5.80	5.20	1.90
	20593-020E-01	20593-020E-01M				15.30	13.90	10.65	2.00	6.00	5.40	2.10
	20593-022E-01	20593-022E-01M				16.30	14.90	11.65	1.80	5.80	5.20	1.90
	20593-024E-01	20593-024E-01M				17.30	15.90	12.65	1.80	5.80	5.20	1.90
	20593-030E-01	20593-030E-01M	32.00	14.20	28.40	20.30	18.90	15.65	1.80	5.80	5.20	1.90
◆	20593-033E-01	20593-033E-01M				21.80	20.40	17.15	2.00	6.00	5.40	2.10
	20593-034E-01	20593-034E-01M				22.30	20.90	17.65	1.80	5.80	5.20	1.90
	20593-036E-01	20593-036E-01M	44.00	20.20	40.40	23.30	21.90	18.65	1.80	5.80	5.20	1.90
	20593-038E-01	20593-038E-01M				24.30	22.90	19.65	1.80	5.80	5.20	1.90
	20593-040E-01	20593-040E-01M				25.30	23.90	20.65	1.80	5.80	5.20	1.90
	20593-045E-01	20593-045E-01M				27.80	26.40	23.15	1.80	5.80	5.20	1.90
	20593-050E-01	20593-050E-01M				30.30	28.90	25.65	2.00	6.00	5.40	2.10
◆	20593-055E-01	20593-055E-01M				32.80	31.40	28.15	2.00	6.00	5.40	2.10
◆	20593-060E-01	20593-060E-01M	56.00	26.20	52.40	35.30	33.90	30.65	2.00	6.00	5.40	2.10

◆ MARK MEANS NOT AVAILABLE



ANGLE	±2°	6 OVER 30 MAX.	±0.3	PROJECTION ⊕	SERIES No. R1	CUSTOMER COPY
	6 MAX.	±0.2	30 OVER 120 MAX.			
GENERAL TOLERANCE.				TITLE MINIFLEX® 5-BF III		SCALE 2:1
DWG.	DATE			DWG. No. 20593		UNIT mm
CHK.	DATE					SIZE A3
APP.	DATE					
						SHEET 6/6
						REV. 12