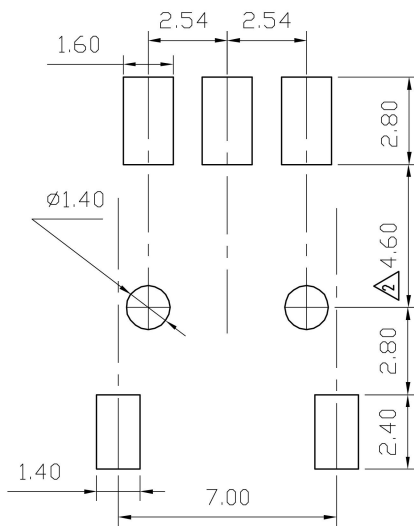
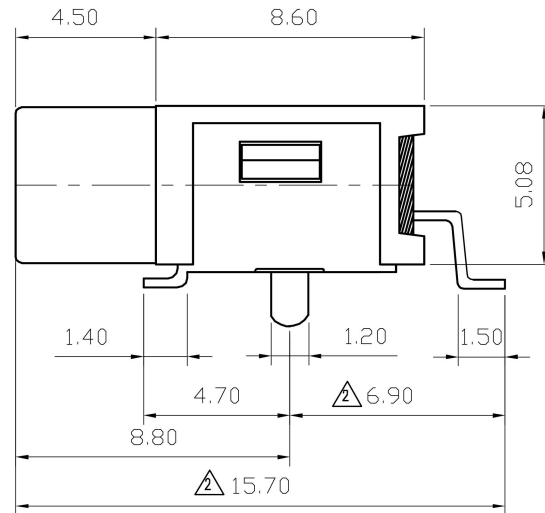
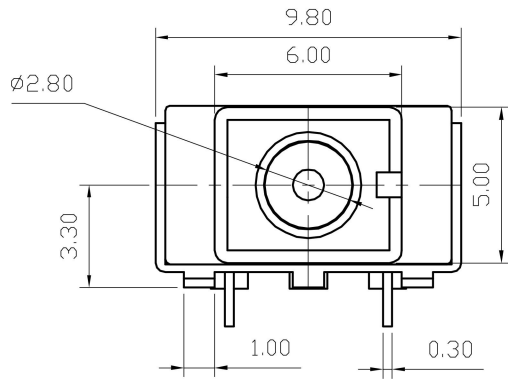


# DATA SHEET

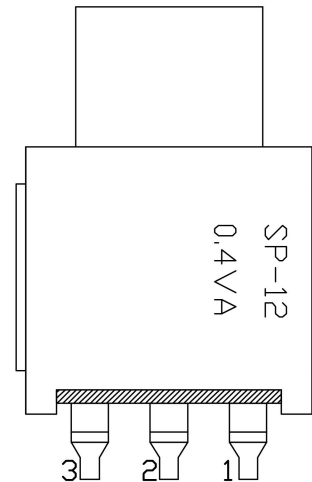
**SUNGMUN CODE :** SP-12FH-S-TR  
**DESCRIPTION :** PUSH SWITCH

## **SUNGMUN ELECTRONICS CO., LTD.**

Address 301-302,Bucheon Technopark 345, Seokcheon-ro, Ojeong-gu  
Bucheon-si, Gyeonggi-do, Korea  
TEL. +82-32-328-1941~4  
FAX +82-32-328-1945  
E-mail sungmun@sungmun.co.kr  
Website www.sungmun.com



P.C.B DIMENSION



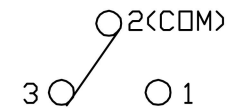
CIRCUIT

NORMAL DOWN

ON (ON)  
2-3 1-2

< > MOMENTARY

SCHEMATICS



NOTE: GENERAL TOLERANCE ±0.3			APPD	CHKD	DSGD	MODEL
△	16.06.22	(6.80-6.90), (4.5-4.6), (15.60-15.70)				<b>PUSH BUTTON SWITCH</b>
△	11.12.20	(6.40-6.80), (4.4-4.5), (15.20-15.60), (2.5-2.8)	LEE K.I	ROH J.P	PARK S.M	PART NAME <b>SP-12FH-S</b>
NO.	DATE	DESCRIPTION	SUNGMUN ELECTRONICS CO.,LTD			Rev.3

### 1. Electrical Characteristics :

- 1-1 Rating: 0.4VA at 28V AC or DC Max.
- 1-2 Contact Resistance: Max 50 mΩ
- 1-3 Insulation Resistance: Min 500 MΩ at DC 500V
- 1-4 Withstanding Voltage: 1 minute at AC 500V
- 1-5 Life Cycle: 20,000 cycles
- 1-6 Operating Temperature: -25°C ~ +80°C

### 2. Mechanical Characteristics :

- 2-1 Operating Force: 250±100gf
- 2-2 Travel: 1.1mm
- 2-3 Insulator: Fiberglass reinforced polyamide.
- 2-4 Terminal: Brass, Gold plate.

### 3. High, Low Temperature Test :

- 3-1 Test Condition: 80°C±3°C for 48 hours  
-25°C±3°C for 48 hours
- 3-2 Insulation Resistance: Min 500 MΩ at DC 500V
- 3-3 Withstanding Voltage: 1 minute at AC 500V
- 3-4 Contact Resistance: Max 50 mΩ

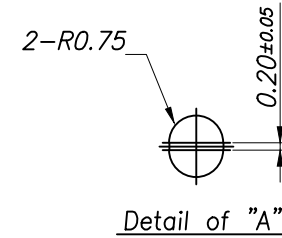
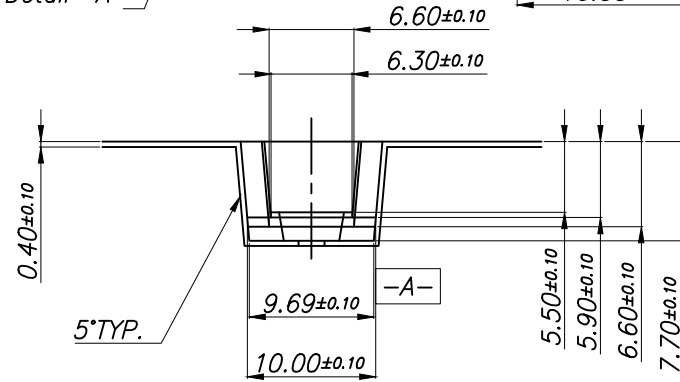
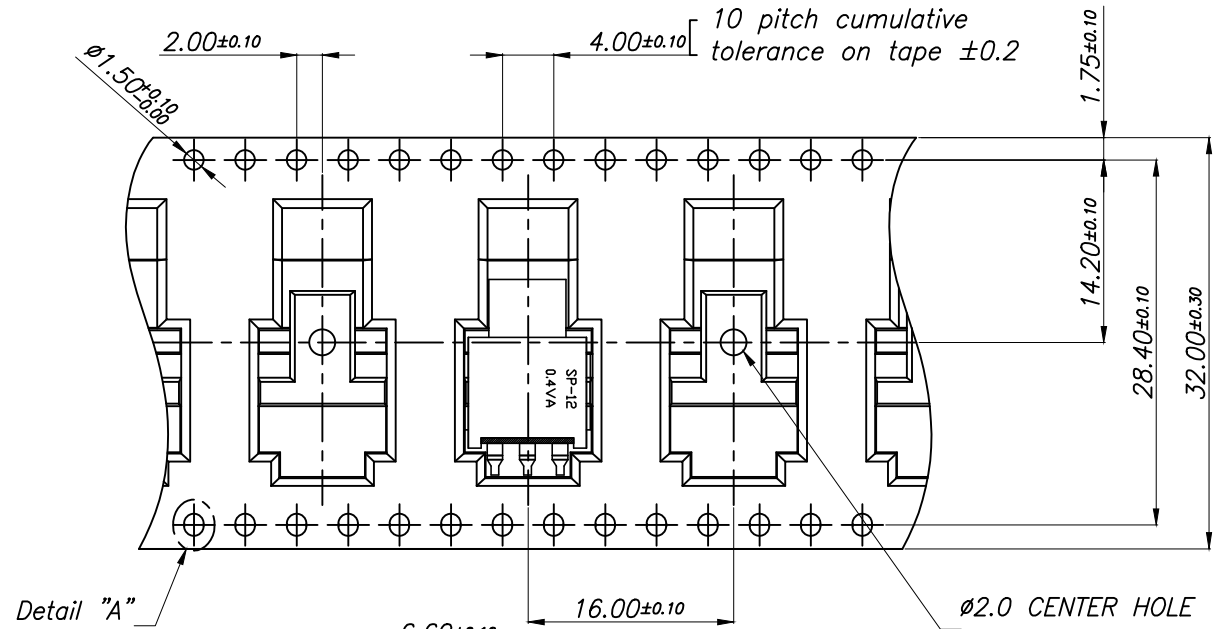
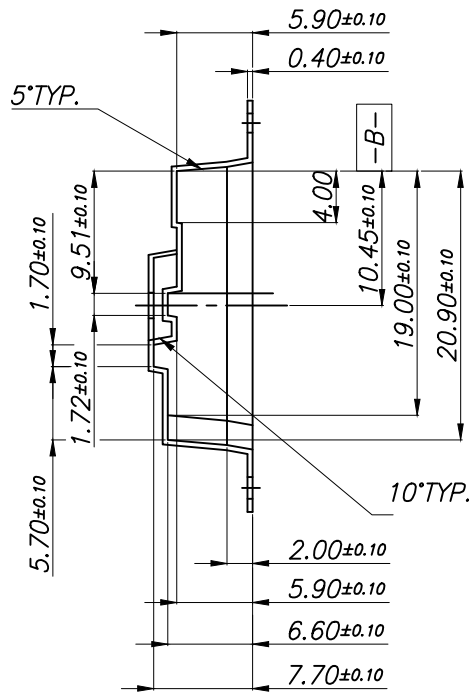
### 4. Humidity Test :

- 4-1 Test Condition: Measured 3 hours after exposure to ambient after 96 hours exposure at  
40°C±2°C, 90-95% R.H
- 4-2 Insulation Resistance: Min 10 MΩ
- 4-3 Withstanding Voltage: 1 minute at AC 500V
- 4-4 Contact Resistance: Max 50 mΩ

### 5. Solder Condition :

- 5-1 Within 5 sec. at 270°C

MOLD NO. 32M/M-19



NOTES: (UNLESS OTHERWISE SPECIFIED)

1. 10 SPROCKET HOLE PITCH CUMULATIVE TOL  $\pm 0.2$
2. CAMBER NOT TO EXCEED 1mm IN 100mm.
3. MATERIAL : BLACK CONDUCTIVE POLYSTYRENE.
4.  $A_o$  &  $B_o$  MEASURED ON A PLANE 0.3mm ABOVE THE BOTTOM OF THE POCKET.
5.  $K_o$  MEASURED FROM A PLANE ON THE INSIDE BOTTOM OF THE POCKET TO THE TOP SURFACE OF THE CARRIER.
6. POCKET POSITION RELATIVE TO SPROCKET HOLE MEASURED AS TRUE POSITION OF POCKET, NOT POCKET HOLE.
7. ALL DIMENSIONS ARE IN MILLIMETERS.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		SCALE	NON SCALE		TITLE <b>Reel PACKING</b>	
		DATE	2003.10.21			
TOLERANCE		DRAWN	DESIGNED	CHECKED	APPROVED	ITEM
DECIMALS	ANGULAR	W.J LEE	J.P. ROH	K.J. LEE		Push Button Switch
X.X $\pm 0.13$	$\pm 1^\circ$					MODEL NO
X.XX $\pm 0.10$		SUNGUN ELECTRONICS CO.,LTD				
DO NOT SCALE DRAWING						
UNIT	mm					
THIRD ANGLE PROJECTION						