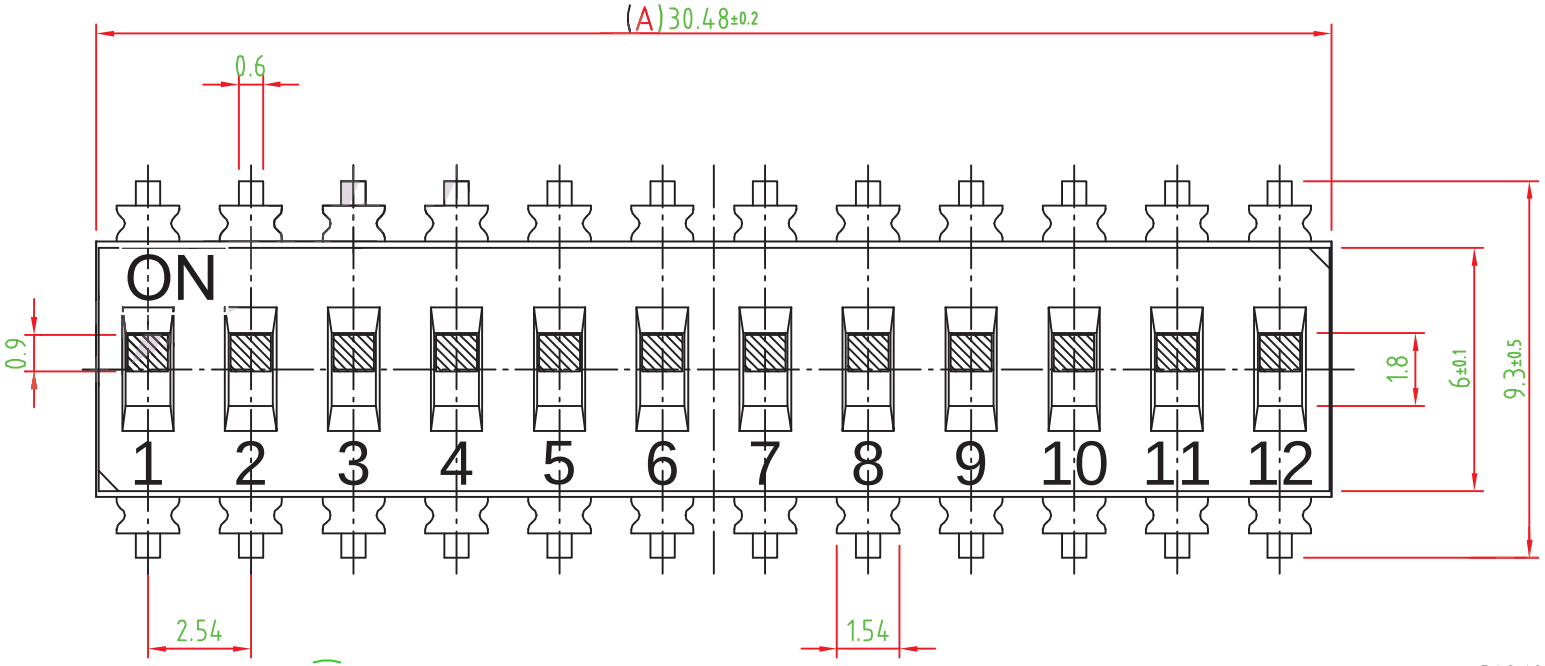
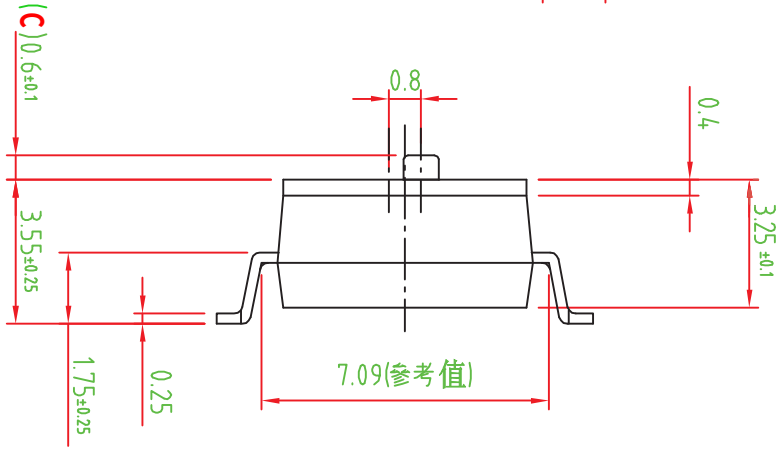
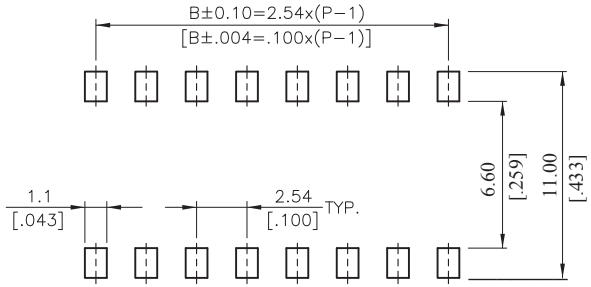
修改	記號	內容	修改者	日期
	1			







P.C.B. LAYOUT

POP數	01	02	03	04	05	06	07	08	09	10	12
A尺寸	2.54	5.08	7.62	10.16	12.70	15.24	17.78	20.32	22.86	25.40	30.48

C	尺寸
長推鈕	0.6
短推鈕	0

DEVETECH ELECTRONICS CO. LTD

中心孔距皆為±0.05

一般公差
0- 150 : ±0.05
>151- 300 : ±0.1
>301- 500 : ±0.2
>501-1000 : ±0.3

製圖	杨宜良	比例	5:1	日期	12/08/01
設計	杨宜良	單位	mm	材質	
校對	马国亮	全週倒角		數量	
審核	汤立东	視圖		處理	

圖號: CDM CDMR SERIES

所有倒角交界處均需消除譁角

設備	
機型	
圖名	本體端子成型

備註: 金屬毛邊+0.05以g

1.**Style:**

This specification describes "DUAL IN-LINE PACKAGE SWITCHES" mainly used as signal switch of electric devices with the general requirements of mechanical and electrical characteristics.

1.1 Operating Temperature Range : -20℃ ~ +85℃

1.2 Storage Temperature Range : -40℃ ~ +85℃

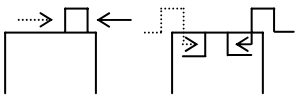
2. **Current Range :**

2.1 Non-Switching : 100mA, 50V DC

2.2 Switching : 25mA , 24V DC

3. **Type of Actuation:** Actuated by sliding

4. **Test Sequence :**

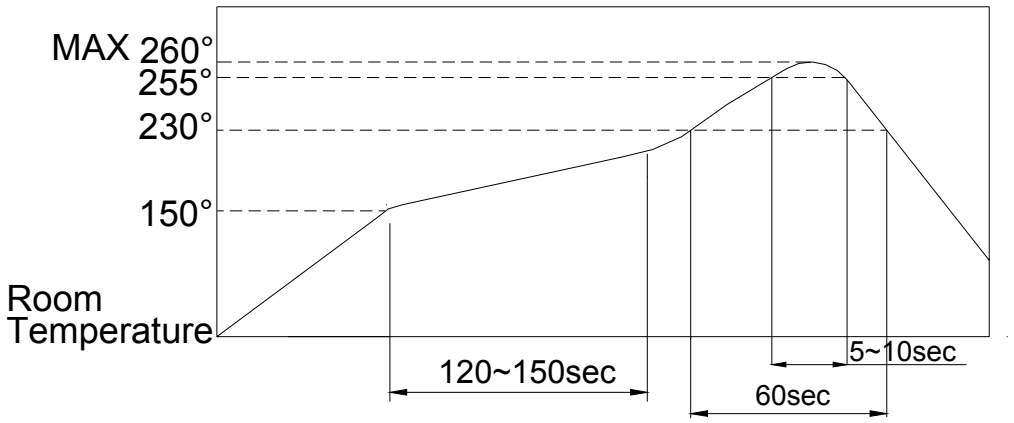
	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
ELECTRIC PERFORMANCE	1	Visual Examination	By visual examination check without any out pressure & testing.	There shall be no defects that affect the serviceability of the product.
	2	Contact Resistance	①To be measured between the two terminals associated with each switch pole. ②Measurements shall be made with a 1kHz shall current contact resistance meter.	50mΩ max. (initial)
	3	Insulation Resistance	500V DC, 1 minute ± 5 sec.	100MΩ min.
	4	Dielectric withstand-ing Voltage	500V AC (50Hz or 60 Hz) shall be applied between all the adjacent terminals and between the terminal and the frame for 1 minute.	There shall be no breakdown or flashover.
	5	Capacitance	1 MHz ± 10 kHz	5 pF max.
MECHANICAL PERFORMANCE	6	Operation Force	Applied in the direction of operation. ON→OFF OFF→ON 	1000gf max （9.8N max）

<table>
<tr><td rowspan="6">MECHANICAL PERFORMANCE</td><td>7</td><td>Stop Strength</td><td colspan="3">A static load of 1 kgf is applied in the operating direction and pulling direction operated for a period of 15 seconds.</td><td>There shall be no sign of damage mechanically.</td></tr>
<tr><td rowspan="4">8</td><td rowspan="4">Soldering Heat Resistance</td><td colspan="3">1.Soldering Temperature :</td><td rowspan="4">As shown in item 2~6</td></tr>
<tr><td>PROD SERIES</td><td>TEMP</td><td>TIME</td></tr>
<tr><td>THROUGH HOLE TYPE
NDI(R)-V</td><td>260℃±5℃</td><td>5±1 sec.</td></tr>
<tr><td>SMT TYPE
DM(R)、DL(R)-V</td><td colspan="2">SEE PAGE 4/4</td></tr>
<tr><td colspan="4">2.Duration of Solder Immersion:
5±1 sec.
3.Frequency of Soldering Process:
2 times max.
(PCB is 1.6mm in thickness.)</td></tr>
<tr><td>9</td><td>Vibration</td><td colspan="3">Shall be vibrated in accordance with Method 201A of MIL-STD-202F
①Frequency: 10-55-10 Hz 1 min/cycle.
②Direction: 3 vertical directions including the direction of operation.
③Test Time: 2 hours each direction.</td><td>As shown in item 2~6</td></tr>
<tr><td>10</td><td>Shock</td><td colspan="3">Shall be shocked in accordance with Method 213B condition A of MIL-STD-202F
①Acceleration: 50G.
②Action Time : 11 ± 1 m sec.
③Testing Direction: 6 sides.
④Test cycle : 3 times in each direction</td><td>As shown in item 2~6</td></tr>
<tr><td>11</td><td>Solderability</td><td colspan="3">①THROUGH HOLE TYPE Soldering Temperature:245±3℃
Lead-Free solder : M705E JIS Z 3282 Class A
(Tin 96.5%，Silver 3%，Copper 0.5%)
②Flux: 5-10 seconds.
③Duration of solder Immersion:
3±0.5 sec.
④ SMT TYPE SEE PAGE 4/4</td><td>No anti-soldering and the coverage of dipping into solder must more than 75% was requested.</td></tr>
</table>

DURABILITY	**12**	Operation Life	Measurements shall be made following the test set forth below: ①25 mA, 24V DC resistive load ②Rate of Operation: 15~20 cycles/ minute ③Cycle of Operation: 2000 cycles.	1.As show in item 3,4 2.Contact Resistance: 100mΩ max. (final-after test)
WEATHER-PROOF	13	Resistance Low Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made : 1.Temperature : -40℃±3℃ 2.Time: 96 hours	As shown in item 2~6
	14	Resistance High Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made : 1.Temperature : 85℃±2℃ 2.Time: 96 hours	1.As shown in item 3~6 2.Contact Resistance: 100mΩ max.
	15	Resistance Humidity	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made : ①Temperature : 40℃±2℃ ②Relative Humidity :90~95% ③Time: 96 hours	1.As shown in item 4,6 2.Contact Resistance: 100mΩ max. 3.Insulation Resistance: 10MΩ min.

5. SOLDERING CONDITIONS:

■



■ The condition mentioned above is the temperature on the Cu foil of the P.C.B surface.
There are cases where board's temperature greatly differs from switch's surface temperature depending on board's material, size, thickness, etc. Care, therefore, should be used not to allow switch's surface temperature to exceed 260℃.

■ Manual Soldering

Soldering Temperature	Max.350℃
Continuous Soldering Time	Max. 5 seconds

■ Precautions in Handling

1. Care should be exercised so that flux from the upper part of the printed circuit board does not adhere to the switch.
2. Don't clean the switch body except with top tape sealed type, which can only spray of cleaning method from top of s/w.
3. Please make sure that there is no flux rose over the surface of the PCB