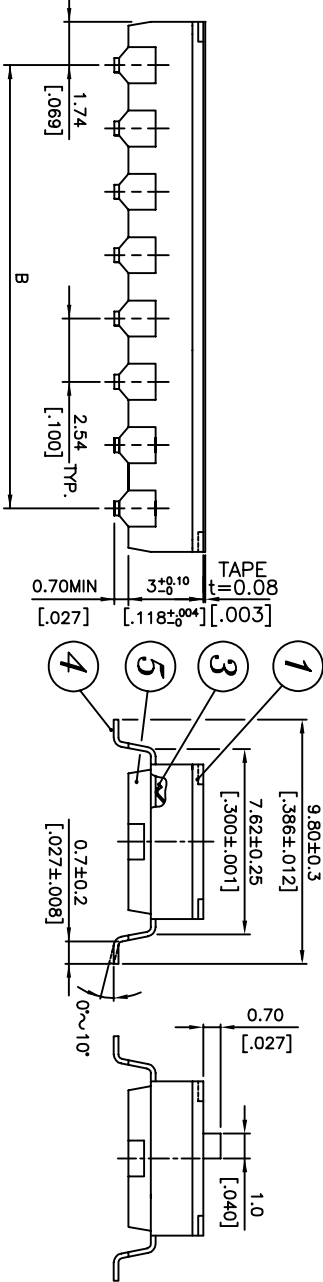
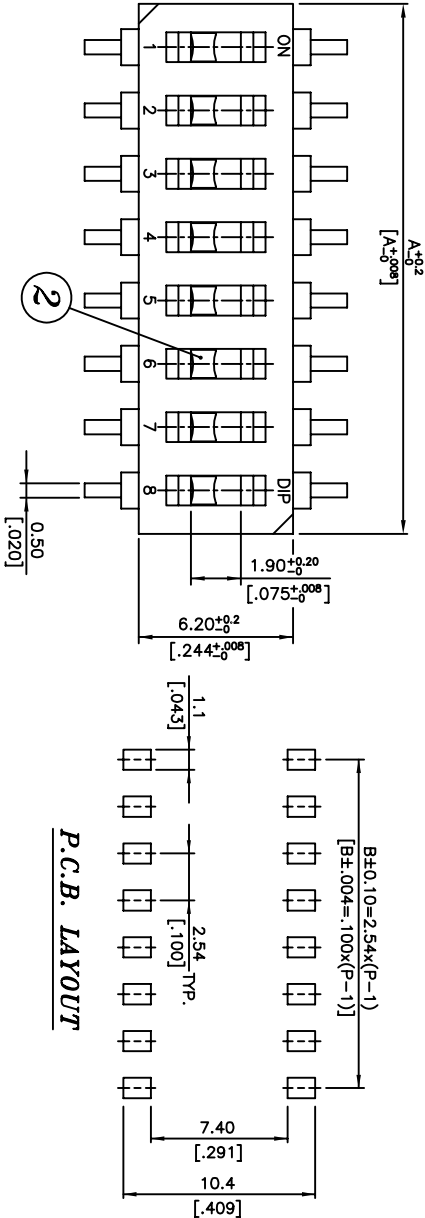
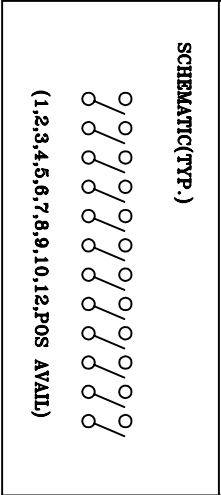


NOTE: 1. ALL DIMENSIONS ARE IN MILLIMETERS.  
ARE IN INCHES.  
2. GENERAL TOLERANCES 10mm OVER - ±0.20mm.  
3. DM(R)-02 / DM(R)-03 ARE WITHOUT "DIP" PRINTING.



DM -12(A) (P)-V	12	31.42[1.237]	27.94[1.100]
DMR-12(A) (P)-V			
DM -10(A) (P)-V	10	26.34[1.037]	22.86[.900]
DMR-10(A) (P)-V			
DM -09(A) (P)-V	9	23.80[.937]	20.32[.800]
DMR-09(A) (P)-V			
DM -08(A) (P)-V	8	21.26[.837]	17.78[.700]
DMR-08(A) (P)-V			
DM -07(A) (P)-V	7	18.72[.737]	15.24[.600]
DMR-07(A) (P)-V			
DM -06(A) (P)-V	6	16.18[.637]	12.70[.500]
DMR-06(A) (P)-V			
DM -05(A) (P)-V	5	13.64[.537]	10.16[.400]
DMR-05(A) (P)-V			
DM -04(A) (P)-V	4	11.10[.437]	7.62[.300]
DMR-04(A) (P)-V			
DM -03(A) (P)-V	3	8.56[.337]	5.08[.200]
DMR-03(A) (P)-V			
DM -02(A) (P)-V	2	6.02[.237]	2.54[.100]
DMR-02(A) (P)-V			
-	-	-	-
PROD. NO.	NO. OF POS.	DIM. A	DIM. B



符號	原尺寸	修改後尺寸	變更日期	SCALE (比例) : 4 : 1	TITLE	圖名	SWITCH	SIZE
1	Ⓐ			TOLERANCE (公差) : 0.00 mm ± 0.25mm	DWG NO.		DMR-05T-V	圖紙 A4
2	Ⓑ			0.0 mm ± 0.40mm	REV.	圖號		UNIT inch
3	Ⓒ				版本	DATE	JUL - 06 - 2007	單位 mm
4	Ⓓ				CHECKED BY	日期		SHEET 1 of 1
5	Ⓔ			FILE NAME : Y0557	審核	RICHARD	DRAWN BY	張數
							製圖	FION

德利威電子股份有限公司  
DAILYWELL ELECTRONICS CO.,LTD.

**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°C ~ +85°C

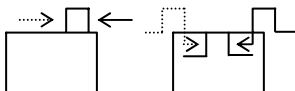
1.2 Storage Temperature Range : -40°C ~ +85°C

**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 :**

ELECTRIC PERFORMANCE	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
	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.
MECHANICAL PERFORMANCE	5	Capacitance	1 MHz ± 10 kHz	5 pF max.
	6	Operation Force	Applied in the direction of operation. ON→OFF OFF→ON 	1000gf max ( 9.8N max )

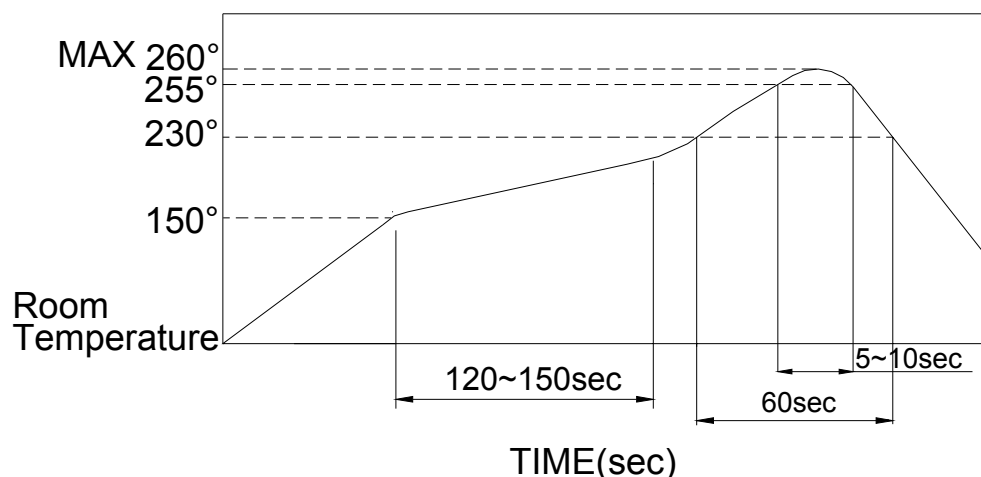
MECHANICAL PERFORMANCE	7	Stop Strength	A static load of 1 kgf is applied in the operating direction and pulling direction operated for a period of 15 seconds.			There shall be no sign of damage mechanically.
	8	Soldering Heat Resistance	1.Soldering Temperature :			As shown in item 2~6
			PROD SERIES	TEMP	TIME	
			THROUGH HOLE TYPE NDI(R)-V	260℃±5℃	5±1 sec.	
			SMT TYPE DM(R) 、DL(R)-V	SEE PAGE 4/4		
			2.Duration of Solder Immersion: 5±1 sec. 3.Frequency of Soldering Process: 2 times max. (PCB is 1.6mm in thickness.)			
9	Vibration	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.			As shown in item 2~6	
10	Shock	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			As shown in item 2~6	
11	Solderability	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			No anti-soldering and the coverage of dipping into solder must more than 75% was requested.	

DM(R) 、NDI(R) 、DL(R)-V SPECIFICATION	FILE No.	:	E-V-AD05
	REV.	:	B
	Page	:	3 / 4

WEATHER-PROOF	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)
		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 : 85℃±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:

### ■ Condition for Soldering –DM(R) 、DL(R) –V Series



- 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°C.

### ■ Manual Soldering

Soldering Temperature	Max.350°C
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

