



Quality & Service ISO9001 ISO14001

Company

Products

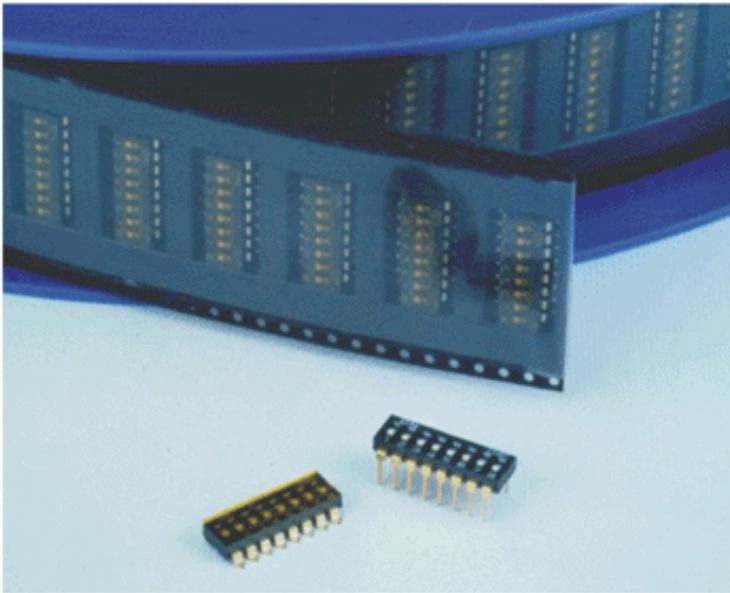
Activities

E-mail

# DIPTRONICS MANUFACTURING INC.

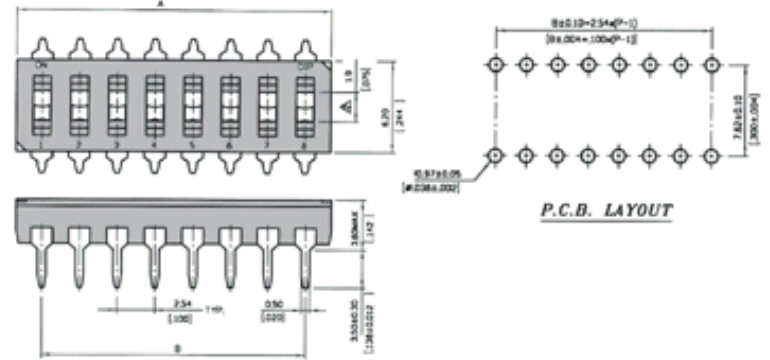
**DIP SWITCH**

**TACT SWITCH**

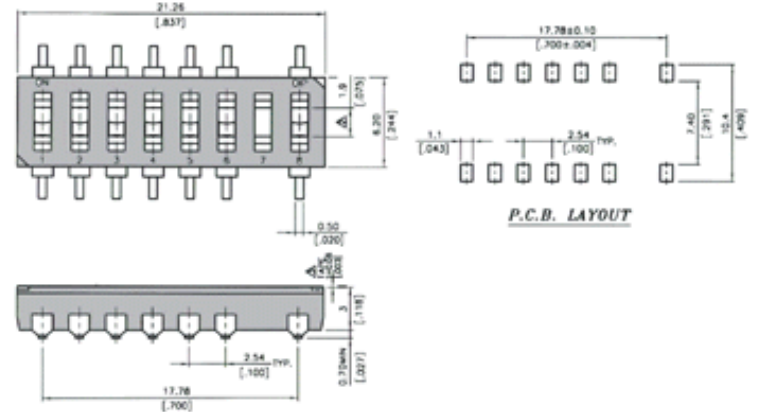


## DIMENSIONS

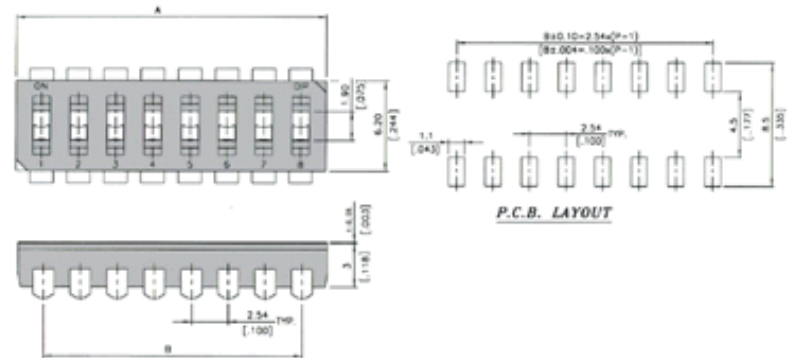
### NDI(R)



### DM(R)



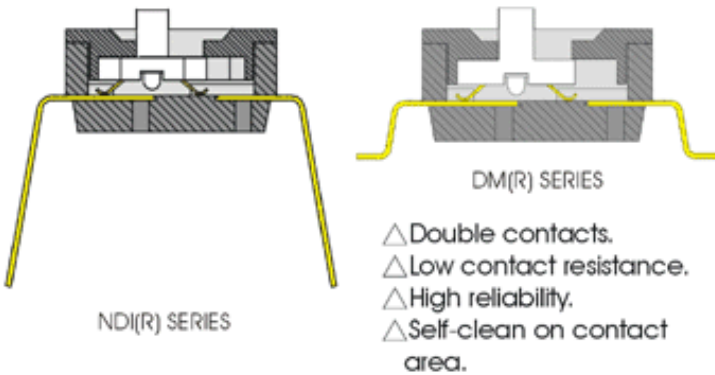
### DJ(R)



## TERMINAL TYPE



## CONTACT SYSTEM OF NDI(R) & DM(R) SERIES



- △ Double contacts.
- △ Low contact resistance.
- △ High reliability.
- △ Self-clean on contact area.

## FEATURES

1. Splay terminals allow for automatic insertion by IC insertion machine.
2. Straight terminals are available for manual insertion.
3. Insert molding of terminals and ultrasonic welding improve flux proofness and enable flux washing in whole by top tape sealing.
4. NDI series (raised actuator) and NDIR series (recessed actuator) available for different purposes.
5. Double contacts offers high reliability.
6. Vapor phase solderable. IR reflow solderable.

## PRODUCTS

- 5. Double contacts offers high reliability.
- 6. Vapor phase solderable, IR-reflow solderable.
- ▲ Terminal plating by gold give excellent results when soldering.
- ▲ Terminal plating: Tin / lead available too.

## MATERIALS

- △ BASE & COVER: UL94V-0 PPS HighTemp.  
Thermoplastic.  
Color: Black.
- △ ACTUATOR: UL94V-0 Nylon Thermoplastic.  
Color: White.
- △ CONTACT: Alloy Copper.
- △ TERMINAL: Brass.
- ▲ CONTACT PLATING: Gold plating over nickel.
- ▲ TERMINAL PLATING: Gold.(or Tin / lead available)
- △ TAPE PLATING: KAPTON

## SPECIFICATION

### MECHANICAL:

- Mechanical Life: 2000 operations per switch.
- Operation Force: 1000gf max.
- Stroke: 1.0mm
- Operation Temp: -20°C to 85°C.
- Storage Temp: -40°C to 85°C.
- Vibration Test: MIL-STD-202F METHOD 201A.  
Frequency: 10-55-10Hz/1 min.  
Directions: X,Y,Z, three mutually perpendicular directions.  
Time: 2 hours each direction.  
High reliability.
- Shock Test: MIL-STD- 202F METHOD 213B.  
CONDITION A.  
Gravity: 50G (peak value), 11 msec.  
Direction and times: 6 sides and 3 times in each direction.  
High reliability.

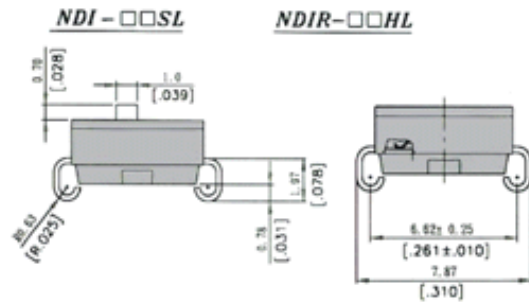
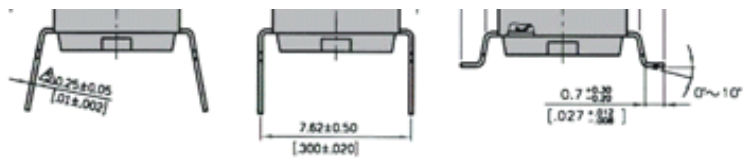
### ELECTRICAL

- Electrical Life: 2000 operations min. per switch 24VDC, 25mA
- Non-Switching Rating: 100mA, 50VDC,
- Switching rating: 25mA 24VDC.
- Contact resistance: (a) 50mΩ max.at initial.  
(b) 100mΩ max.after life test.
- Insulation Resistance: 100MΩ min. at 500VDC.
- Dielectric Strength: 500VAC/1 minute.
- Capacitance: 5pF max.
- Circuit: Single pole single throw.

## SOLDERING AND CLEANING PROCESSES

- For best results, please follow these recommendation:
- △ Keep all switch contacts in their "OFF" position for all operations.

▲ WAVE SOLDERING: Recommended solder



**DJ SERIES**      **DJR SERIES**  
General Tolerance: ± 0.2mm (± 0.008")

## MODELS

DJ-12	DM-12	NDI-12	12	31.42[1.237]	27.94[1.100]
DJR-12	DMR-12	NDIR-12			
DJ-10	DM-10	NDI-10	10	26.34[1.037]	22.86[.900]
DJR-10	DMR-10	NDIR-10			
DJ-09	DM-09	NDI-09	9	23.80[.937]	20.32[.800]
DJR-09	DMR-09	NDIR-09			
DJ-08	DM-08	NDI-08	8	21.26[.837]	17.78[.700]
DJR-08	DMR-08	NDIR-08			
DJ-07	DM-07	NDI-07	7	18.72[.737]	15.24[.600]
DJR-07	DMR-07	NDIR-07			
DJ-06	DM-06	NDI-06	6	16.18[.637]	12.70[.500]
DJR-06	DMR-06	NDIR-06			
DJ-05	DM-05	NDI-05	5	13.64[.537]	10.16[.400]
DJR-05	DMR-05	NDIR-05			
DJ-04	DM-04	NDI-04	4	11.10[.437]	7.62[.300]
DJR-04	DMR-04	NDIR-04			
DJ-03	DM-03	NDI-03	3	8.56[.337]	5.08[.200]
DJR-03	DMR-03	NDIR-03			
DJ-02	DM-02	NDI-02	2	6.02[.237]	2.54[.100]
DJR-02	DMR-02	NDIR-02			
DJ-01	DM-01	NDI-01	1	3.48[.137]	—
DJR-01	DMR-01	NDIR-01			
PROD.NO.			NO.OF POS.	DIM.A	DIM.B
SCHEMATIC(TYP)					
(1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, P OS AVAIL)					

## HOW TO ORDER

□ □ □ □ - □ □ □ - □ - □

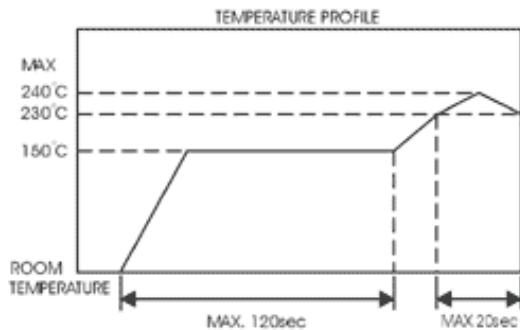
- ▲ Package Style  
□ = Tube  
T/R = Tape & Reel
- ▲ SEAL:  
□ = Regular  
T = Top Tape Sealed
- Shape Of Terminal:  
□ = Regular  
S = Splay Terminal  
H = Straight Terminal  
□ = Gold Plated  
P = Tin / Lead Plated
- Number Of Positions :  
01 = 1 Position  
02 = 2 Positions  
03 = 3 Positions  
04 = 4 Positions  
05 = 5 Positions  
06 = 6 Positions  
07 = 7 Positions  
08 = 8 Positions  
09 = 9 Positions  
10 = 10 Positions

## PRODUCTS

operations.

△ **WAVE SOLDERING:** Recommended solder temperature at 500°F (260°C) max. 5 seconds. For through hole type.

△ **HAND SOLDERING:** Use a soldering iron of 30 watts, controlled at 608°F (320°C) approximately 2 seconds while applying solder.



△ Reflow Temperature Profile.

△ Care should be exercised so that flux from the upper part of the printed circuit board does not adhere to the switch.

△ Do not clean the switch body except with top tape sealed type, which can only spray of cleaning method from top s/w.

07 = 7 Positions  
10 = 10 Positions  
12 = 12 Positions

Actuator Type:

□ = Raised Actuator  
R = Recessed Actuator

NDI = Machine Insertable Type Dip Switch

DM = Surface Mounting Type Dip Switch

DJ = Surface Mounting Type Dip Switch

Example: DMR-08-T is a Surface Mounting Type Dip Switch Recessed Actuator 8 Position, with Top Tape Sealed.

NDIR-08-T is a Machine Insertable Type Dip Switch Recessed Actuator 8 Position, with Top Tape Sealed.

## PACKING

All DIP switches are shipped in standard IC tubes or DMR in Tape & Reel Package with all poles in the "OFF" position.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.  
\*MORE UPDATE INFORMATION, PLEASE CONSULT DIPTRONICS.