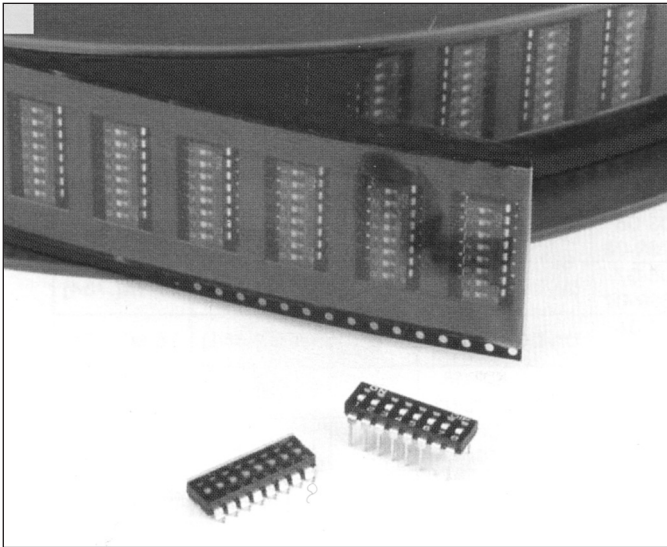
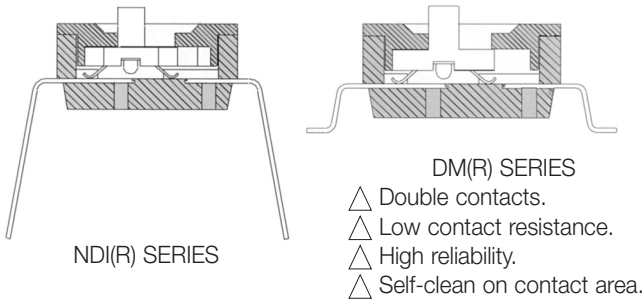


**NDI(R), DM(R), DJ(R) & DL(R) SERIES**  
Machine Insertable Type



**CONTACT SYSTEM**

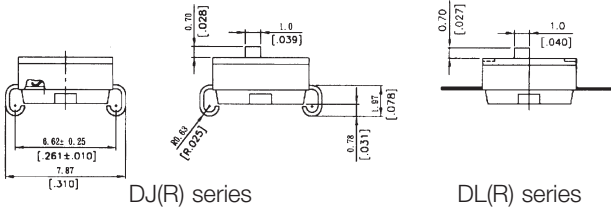


**FEATURES**

1. Splay terminals allow for automatic insertion by IC insertion machine.
  2. Straight terminals are available for manual insertion.
  3. Raised and recessed actuators available for different purpose.
  4. Double contacts offers high reliability.
  5. Vapor phase solderable, IR-reflow solderable.
- ▲ Terminal gold plated gives excellent result when soldering.

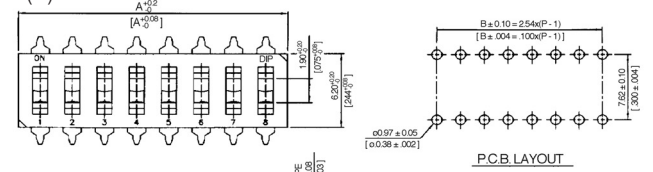
**MATERIALS**

- △ BASE & COVER: UL94V-O PPS High Temp. Thermoplastic. Color: Black.
- △ ACTUATOR: UL94V-O Nylon Thermoplastic. Color: White.
- △ CONTACT: Alloy Copper with gold plated.
- △ TERMINAL: Brass with gold plated.
- ▲ CONTACT PLATING: Gold plated over nickel.
- ▲ TERMINAL PLATING: Gold plated.
- △ TAPE: Kapton.

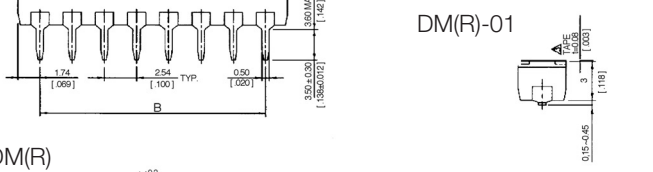


**DIMENSIONS**

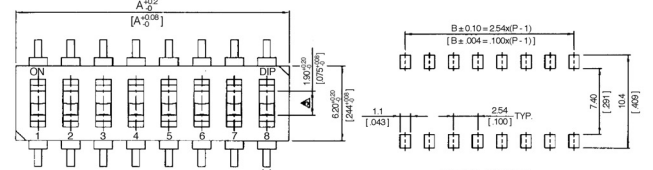
**NDI(R)**



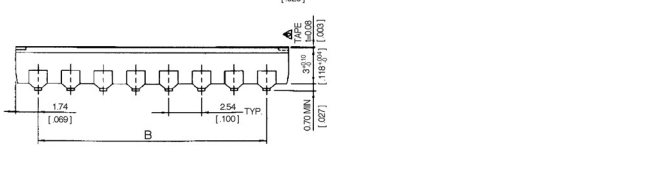
**DM(R)**



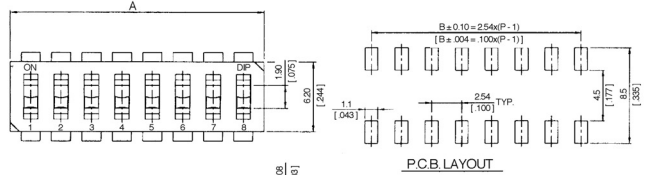
**DJ(R)**



**DL(R)**



**TERMINAL TYPE**



**General Tolerance: ± 0.2 mm (± 0.008")**



## SPECIFICATION

### Mechanical

- Mechanical Life: 2000 operations per switch.
- Operation Force: 1000 gf max.
- Stroke: 1.0 mm
- 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 213 B.  
CONDITION A.  
Gravity: 50G (peak value), 11 msec.  
Direction and times: 6 sides and 3 times in each direction.  
High reliability.

### Electrical

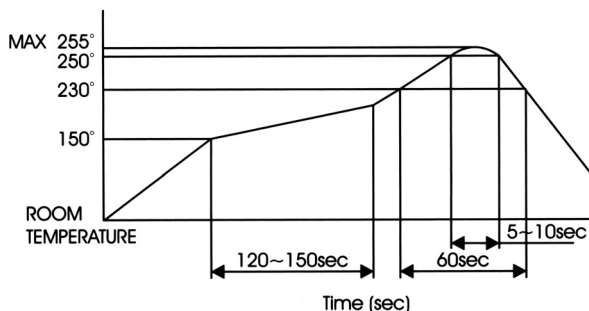
- Electrical Life: 2000 operations min. per switch 24VDC, 25 mA.
- Non-switching Rating: 100 mA, 50VDC.
- Switching rating: 25 mA, 24VDC.
- Contact Resistance: (a) 50 mΩ max. at initial.  
(b) 100 mΩ max. after life test.
- Insulation Resistance: (at 500 VDC) 100 MΩ min.
- Dielectric Strength 500VAC/1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

## SOLDERING PROCESSES

For best results, please follow these recommendations:

- △ Keep all switch contacts in their "OFF" position for all 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 350 °C approximately 5 seconds while applying.
- △ Reflow soldering: When applying reflow soldering, the peak temperature of the reflow oven should be set to 260 °C.
- △ Any flux enters the switch may fail the conductivity.
- △ Do not clean the switch body except top tape sealed type, which only suitable for spray cleaning method from top of the S/W.

### Temperature profile



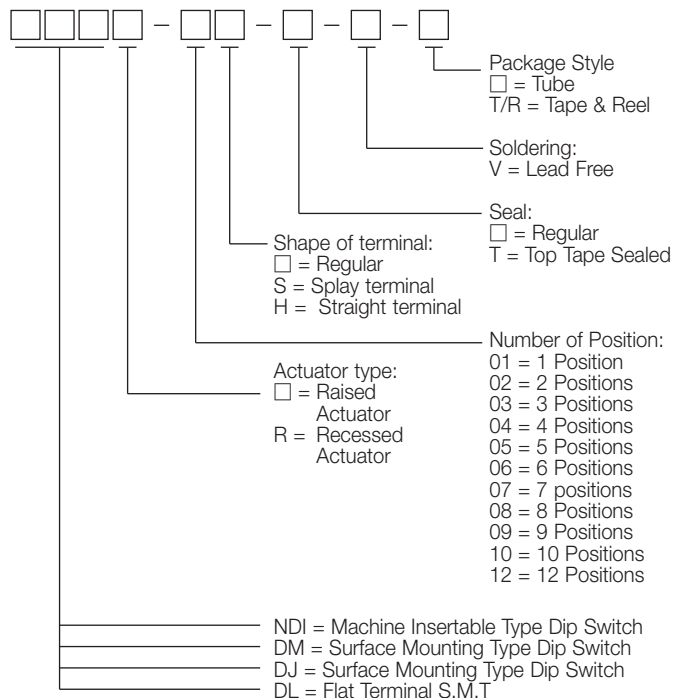
## MODELS

DJ-12	DM-12	NDI-12	DL-12	12	31.42(1.237)	27.94(1.100)
DJR-12	DMR-12	NDIR-12	DLR-12			
DJ-10	DM-10	NDI-10	DL-10	10	26.34(1.037)	22.86(.900)
DJR-10	DMR-10	NDIR-10	DLR-10			
DJ-09	DM-09	NDI-09	DL-09	9	23.80(.0937)	20.32(.800)
DJR-09	DMR-09	NDIR-09	DLR-09			
DJ-08	DM-08	NDI-08	DL-08	8	21.26(.837)	17.78(.700)
DJR-08	DMR-08	NDIR-08	DLR-08			
DJ-07	DM-07	NDI-07	DL-07	7	18.72(.737)	15.24(.600)
DJR-07	DMR-07	NDIR-07	DLR-07			
DJ-06	DM-06	NDI-06	DL-06	6	16.18(.637)	12.70(.500)
DJR-06	DMR-06	NDIR-06	DLR-06			
DJ-05	DM-05	NDI-05	DL-05	5	13.64(.537)	10.16(.400)
DJR-05	DMR-05	NDIR-05	DLR-05			
DJ-04	DM-04	NDI-04	DL-04	4	11.10(.437)	7.62(.300)
DJR-04	DMR-04	NDIR-04	DLR-04			
DJ-03	DM-03	NDI-03	DL-03	3	8.56(.337)	5.08(.200)
DJR-03	DMR-03	NDIR-03	DLR-03			
DJ-02	DM-02	NDI-02	DL-02	2	6.02(.237)	2.54(.100)
DJR-02	DMR-02	NDIR-02	DLR-02			
	DM-01	NDI-01	DL-01	1	3.48(.137)	.....
	DMR-01	NDIR-01	DLR-01			
	Prod. No.			No.Of pos.	Dim.A	Dim.B

Schematic (Typ.)



## HOW TO ORDER



## PACKING

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