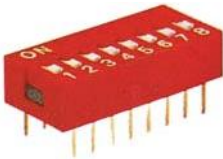
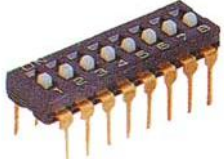
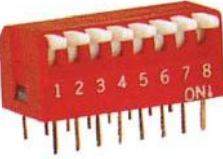
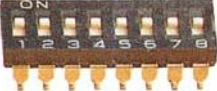


SPECIFICATIONS	PAGE	SPECIFICATIONS	PAGE
DS, DSR  Slide/2-10, 12Pos.	E01	NDI, NDIR  Machine insertable/1-10, 12Pos.	E03
DA  Right angle/2-10, 12Pos.	E01	RH  Rotary / 4x1, 3x3, 3x2/10&16 Pos	E05
DP, DPL  Piano/2-10, 12Pos.	E01	RV  Rotary / 4x1, 3x3, 3x2/10&16 Pos	E05
DM, DMR  Surface mounting/1-10, 12Pos.	E03	RM  Rotary / 3x3, 3x2/10&16 Pos	E05

SPECIFICATIONS

CONTACT RATING: 25mA @24 VDC (switching Rating)
 100mA @50VDC(non-switching Rating)
 ELECTRICAL LIFE:2,000 operations min. @ 24VDC,25mA
 CONTACT RESISTANCE: 50 mΩ max. initial
 INSULATION RESISTANCE: 100 MΩ min. at 500 VDC
 DIELECTRIC STRENGTH: 500 V AC /1 min
 OPERATION FORCE: 400 gf max. (DP series)
 1000 gf max. (DS & DA series)
 STORAGE TEMPERATURE: -40°C to 85°C
 CIRCUIT: SPST

MATERIALS

COVER: UL94V-0 PBT,Thermoplastic(Red.Black.Blue)
 BASE: UL94V-0 PBT, Thermoplastic(Black)
 ACTUATOR: UL94V-0 PBT, Thermoplastic(white)
 CONTACT PLATING: Gold plating over nickel
 TOP SEAL: Polyester film
 POTTING MATERIAL: Epoxy

INDEX

TOGGLE

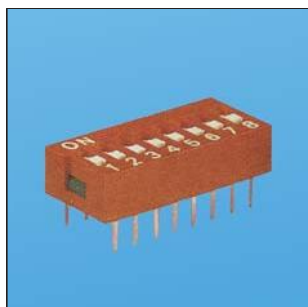
ROCKER

SLIDE

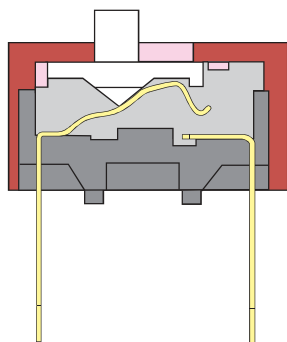
PUSH BUTTON

DIP

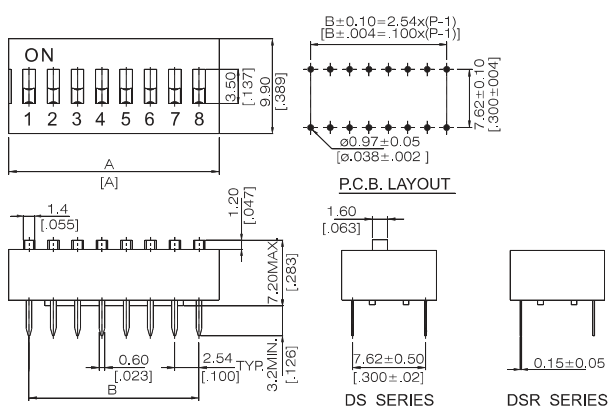
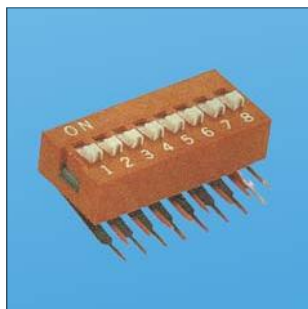
TACT

DS,DSR SERIES
SLIDE TYPE DIP SWITCH

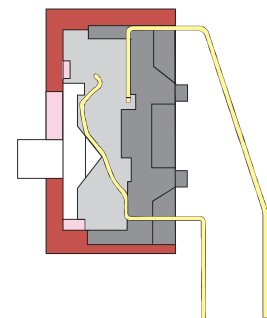
CONTACT SYSTEM



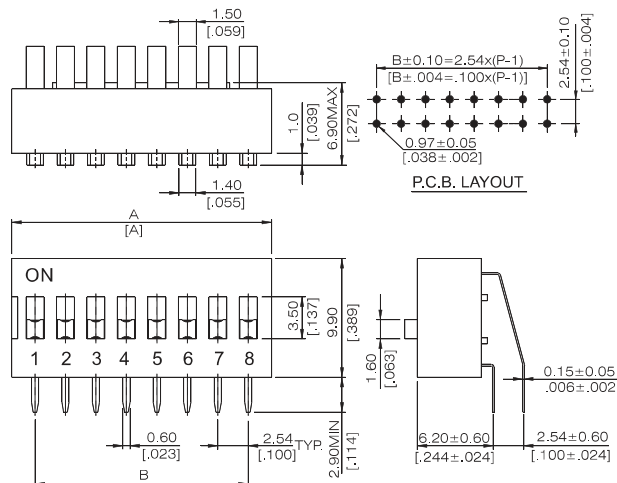
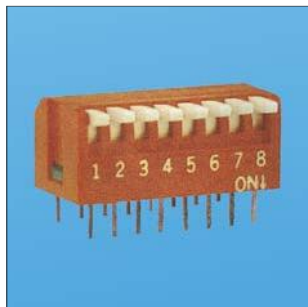
DIMENSIONS

DA SERIES
RIGHT ANGLE TYPE DIP SWITCH

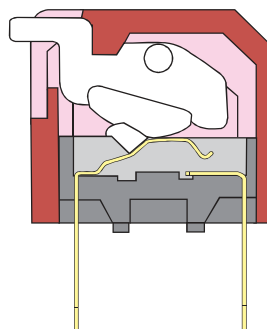
CONTACT SYSTEM



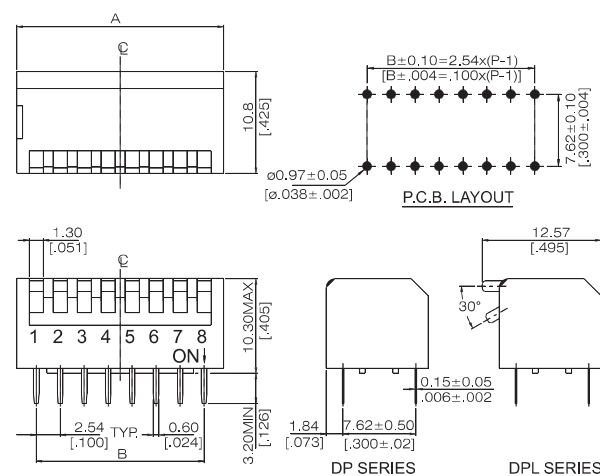
DIMENSIONS

DP,DPL SERIES
PIANO TYPE DIP SWITCH

CONTACT SYSTEM



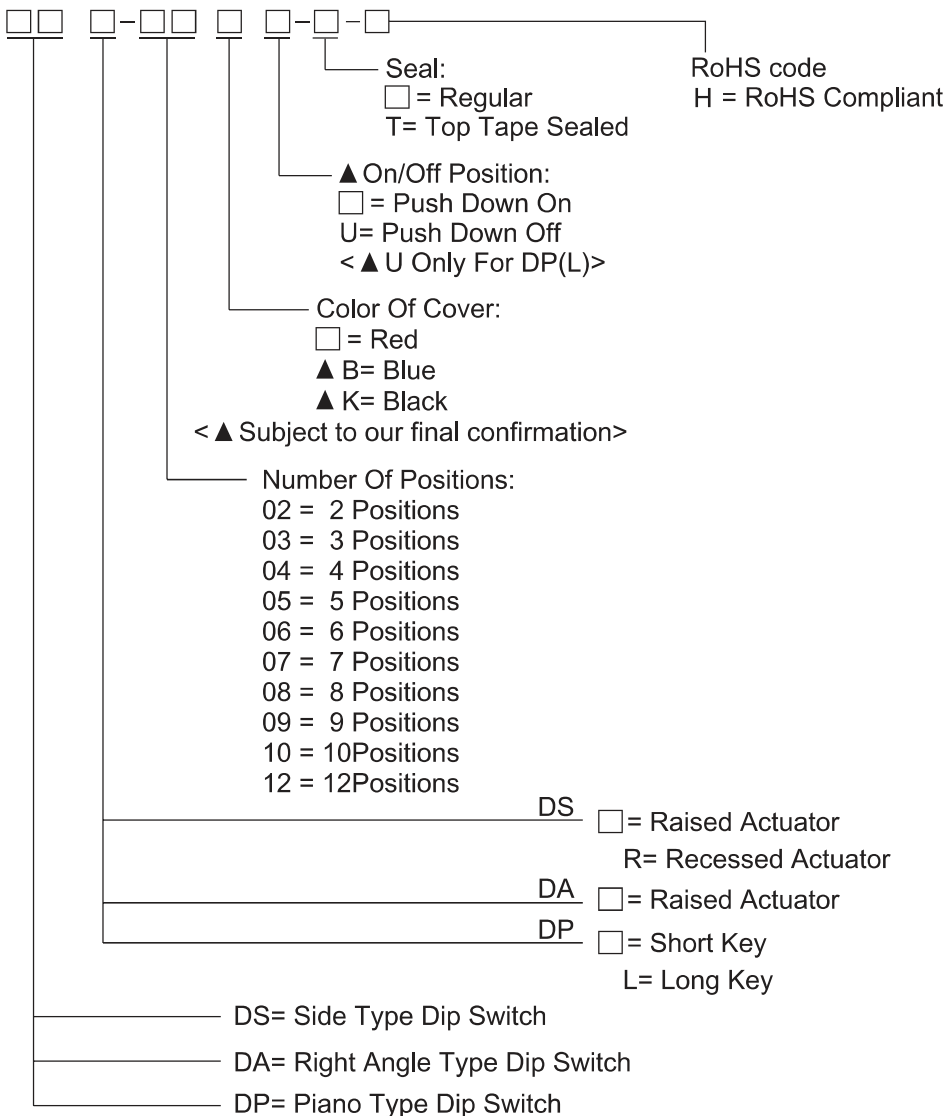
DIMENSIONS



SOLDERING AND CLEANING PROCESSES

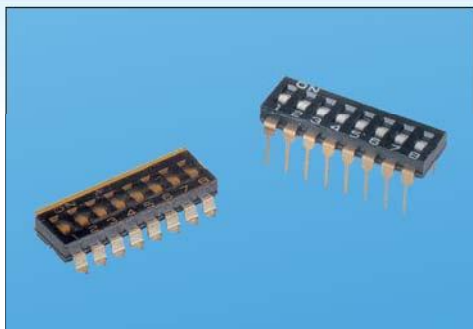
- △ Keep all switch contacts in their "OFF" position for all operations.
- △ WAVE SOLDERING: Recommended solder temperature at 500°F (260°C) max 5 seconds.
- △ HAND SOLDERING: Use a soldering iron of 30 Watts or less, controlled at 350°C approximately 5 seconds.
- △ Care should be exercised so that flux 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.

HOW TO ORDER



MODELS

DS — 12 DSR — 12	DA — 12	DP — 12 DPL — 12	12	31.84[1.254]	27.94[1.100]
DS — 10 DSR — 10	DA — 10	DP — 10 DPL — 10	10	26.76[1.054]	22.86[.900]
DS — 09 DSR — 09	DA — 09	DP — 09 DPL — 09	09	24.22[.954]	20.32[.800]
DS — 08 DSR — 08	DA — 08	DP — 08 DPL — 08	08	21.68[.854]	17.78[.700]
DS — 07 DSR — 07	DA — 07	DP — 07 DPL — 07	07	19.14[.754]	15.24[.600]
DS — 06 DSR — 06	DA — 06	DP — 06 DPL — 06	06	16.60[.654]	12.70[.500]
DS — 05 DSR — 05	DA — 05	DP — 05 DPL — 05	05	14.06[.554]	10.16[.400]
DS — 04 DSR — 04	DA — 04	DP — 04 DPL — 04	04	11.52[.454]	7.62[.300]
DS — 03 DSR — 03	DA — 03	DP — 03 DPL — 03	03	8.98[.354]	5.08[.200]
DS — 02 DSR — 02	DA — 02	DP — 02 DPL — 02	02	6.44[.254]	2.54[.100]
PROD. NO.			NO.OF POS.	DIM. A (DP,DPL)	DIM. B (DS,DSR,DA)
SCHEMATIC(TYP.)					
(2,3,4,5,6,7,8,9,10,12, POS AVAIL)					



FEATURES

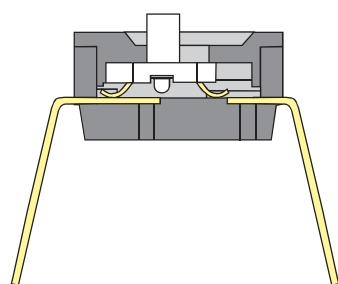
1. Splay terminals allow for automatic insertion by IC insertion machine.
2. Straight terminals are available for manual insertion.
3. Insert molding of terminals and ultrasonic welding improve flux proofness and enable flux washing in whole by top tape sealing.
4. NDI series (raised actuator) and NDIR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

SPECIFICATIONS

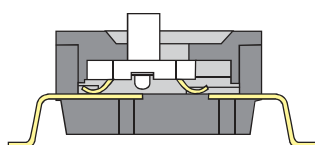
CONTACT RATING: 25mA @24 VDC (switching Rating)
100mA @50VDC(non-switching Rating)
ELECTRICAL LIFE: 2000 operations min. @ 24VDC, 25mA
CONTACT RESISTANCE: 50 mΩ max. initial
INSULATION RESISTANCE: 100 MΩ min. at 500 VDC
DIELECTRIC STRENGTH: 500 V AC /1 min
OPERATION FORCE: 1000 gf max
STORAGE TEMPERATURE: -40°C to 85°C
CIRCUIT: SPST

MATERIALS

COVER: UL94V-0 PPS, Thermoplastic(Black)
BASE: UL94V-0 PPS, Thermoplastic(Black)
ACTUATOR: UL94V-0 Nylon, Thermoplastic(white)
CONTACT PLATING: Gold plating over nickel
TERMINAL PLATING: Gold plated

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

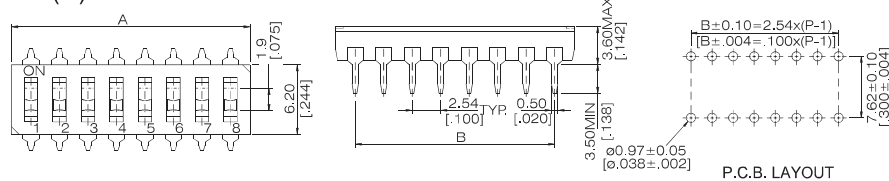
NDI(R) SERIES



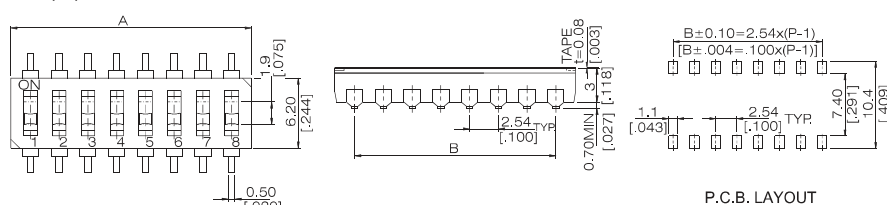
DM(R) SERIES

DIMENSIONS

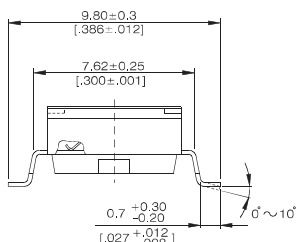
NDI(R)



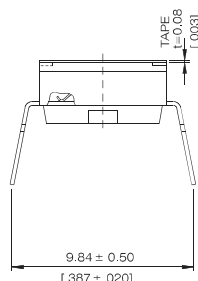
DM(R)



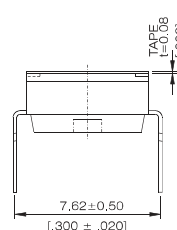
TERMINAL TYPE



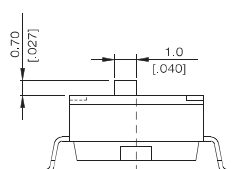
DMR SERIES



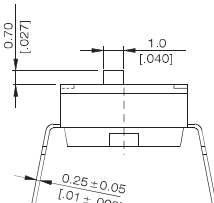
NDIR - □□ S



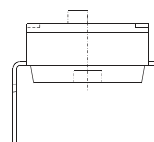
NDIR - □□ H



DM SERIES



NDI - □□ S

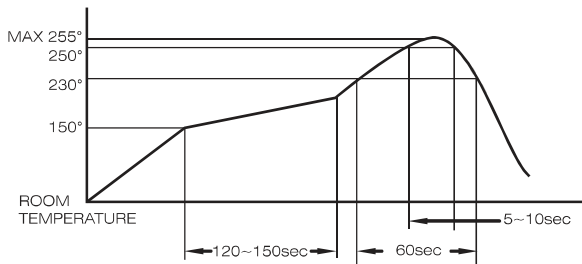


NDI - □□ H

General Tolerance: ±0.2mm(±0.008")

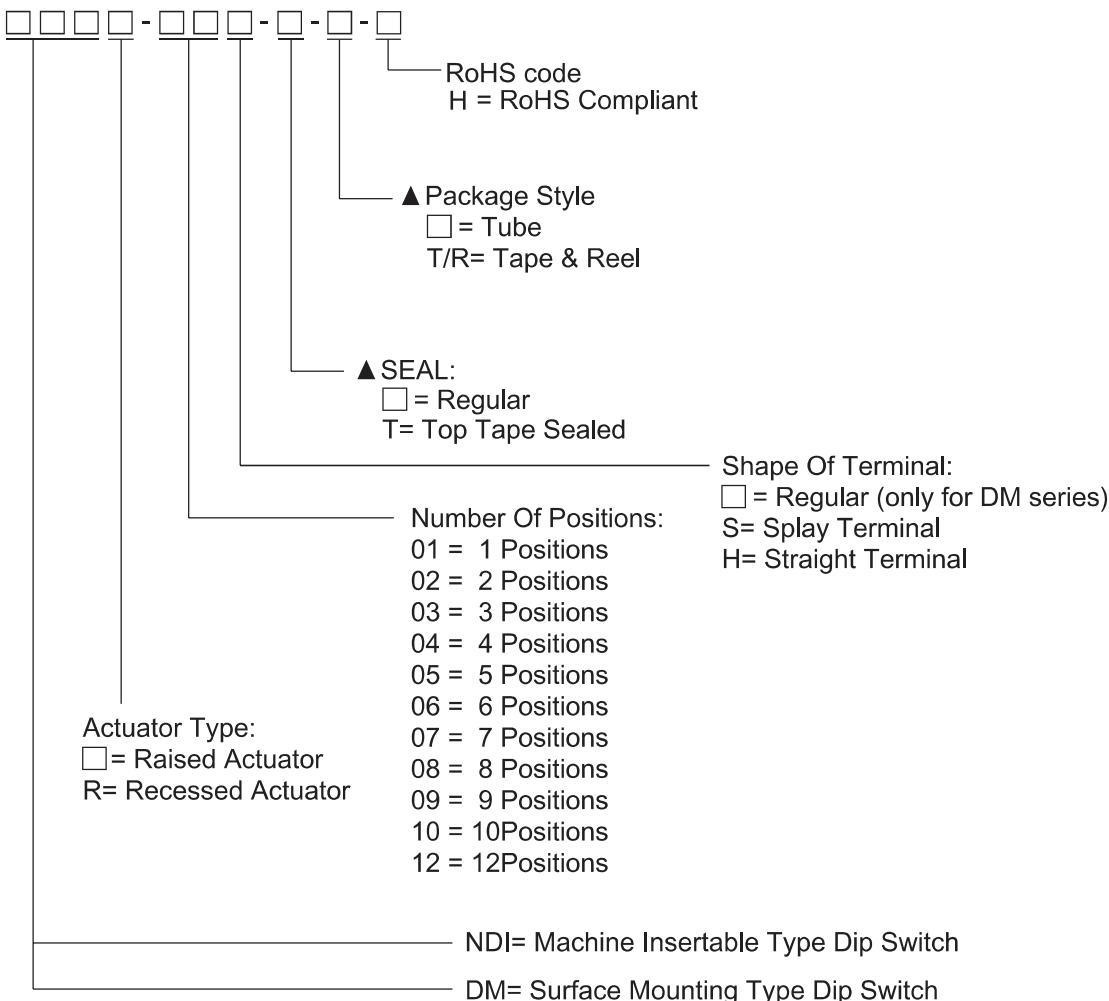
SOLDERING AND CLEANING PROCESSES

- △ 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 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.

HOW TO ORDER



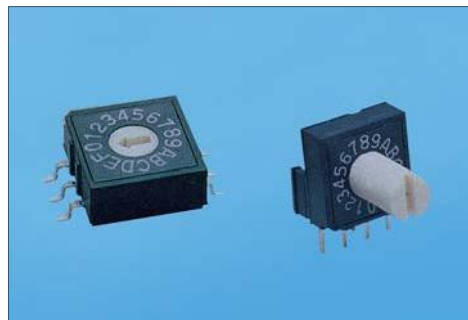
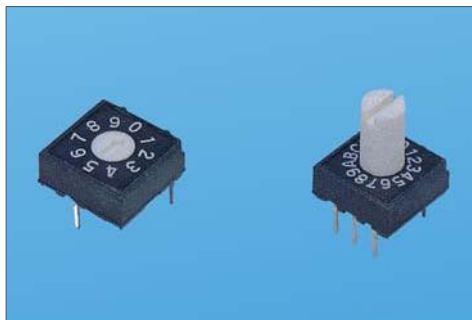
MODELS

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

SPECIFICATIONS

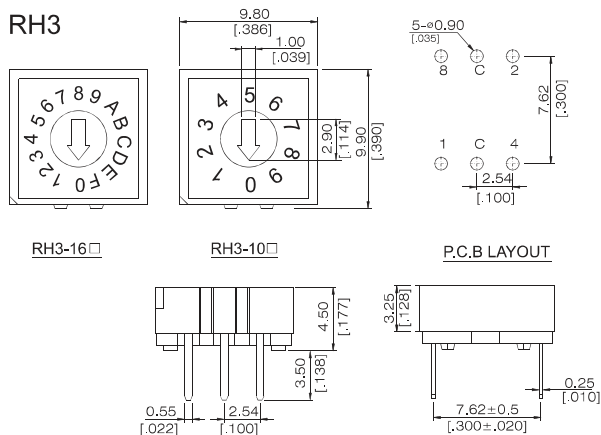
CONTACT RATING: 24VDC, 25mA (switching Rating)
50VDC, 100mA (non-switching Rating)
ELECTRICAL LIFE: Contact Resistance.
200mΩ max. 20,000 cycles.
CONTACT RESISTANCE: 100 mΩ max. (initial)
INSULATION RESISTANCE: 100 MΩ min. at 250 VDC
OPERATION FORCE: (200gf.cm) max

STORAGE TEMPERATURE: -40°C to 85°C
SOLDERABILITY: 230±5°C 3±sec. 75%
SOLDER RESISTANCE: Automatic Soldering
HUMIDITY: 40±2°C 90~95% RH for 96 hours.
THERMAL TEST: 85±2°C FOR 96 hours
COLD TEST: -40°C±2°C for 96 hours

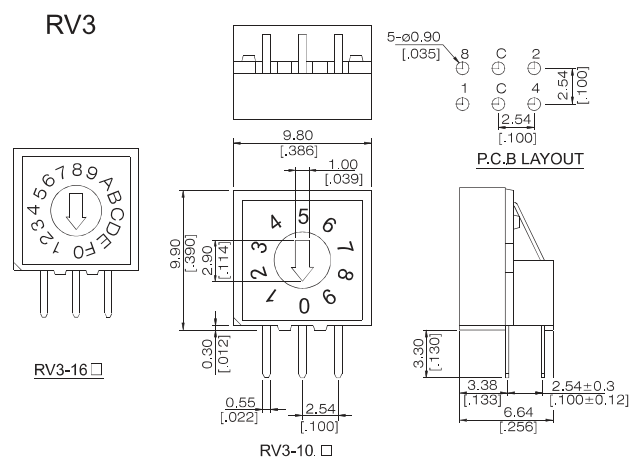


DIMENSIONS

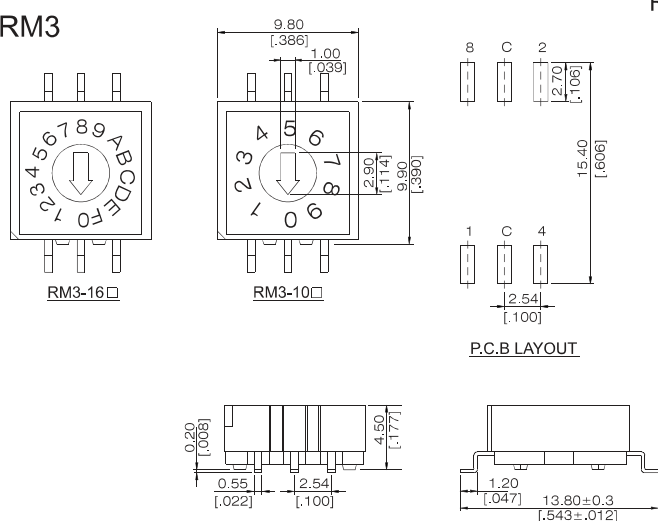
RH3



RV3



RM3



HOW TO ORDER

R ☐ ☐ ☐ ☐ - ☐ ☐ ☐ ☐ - ☐

RoHS code
H = RoHS Compliant

Package Style:
☐ = Tube Package
T/R = Tape & Reel

R = Real Codes.

Number Of Steps:
10 = 10 Steps.
16 = 16 Steps.

Soldering Plating
A = Terminal:
Gold plated over nickel

Actuator Type:
☐ = Recessed Actuator
H = High Actuator
M = 3.2 mm

Number of Terminals
4 = 4x1
3 = 3x3
2 = 3x2

Terminal Type
H = Through Hole
V = Right angle
M = S.M.T