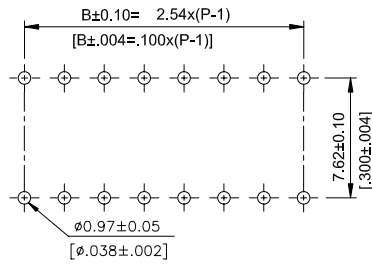
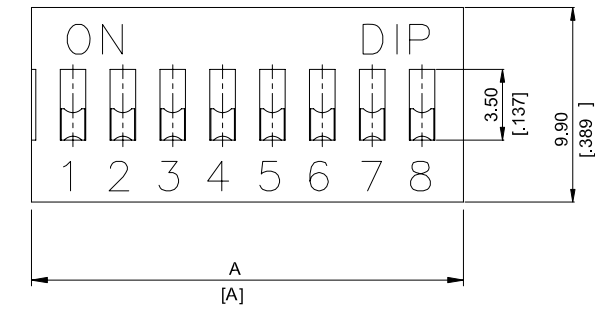
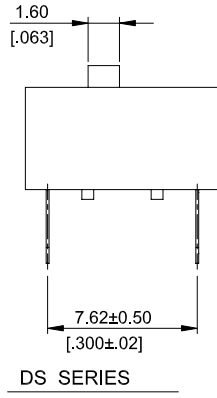
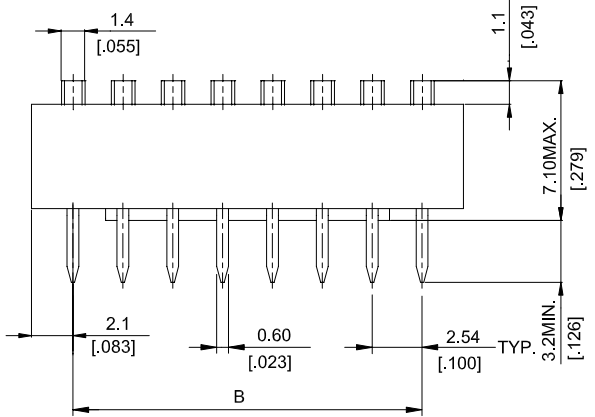


DIMENSIONS

DS(R)



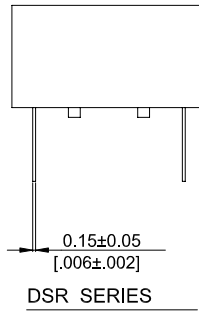
P.C.B. LAYOUT



DS SERIES

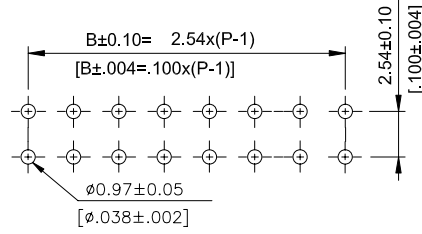
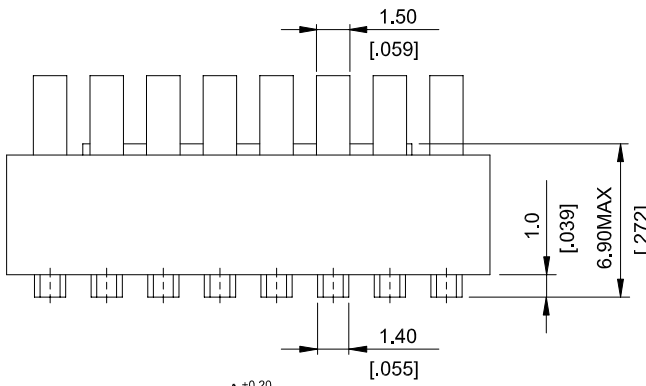
| | | | |
|------------------|-------------|--------------|--------------|
| DS -12 DSR-12 | 12 | 31.84[1.254] | 27.94[1.100] |
| DS -10 DSR-10 | 10 | 26.76[1.054] | 22.86[.900] |
| DS -09 DSR-09 | 9 | 24.22[.954] | 20.32[.800] |
| DS -08 DSR-08 | 8 | 21.68[.854] | 17.78[.700] |
| DS -07 DSR-07 | 7 |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

SCHEMATIC(TYP.)

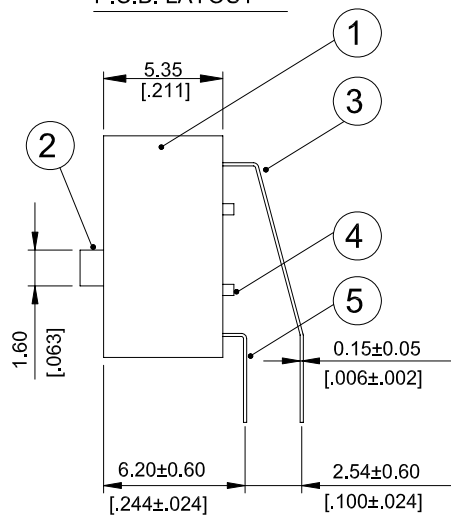
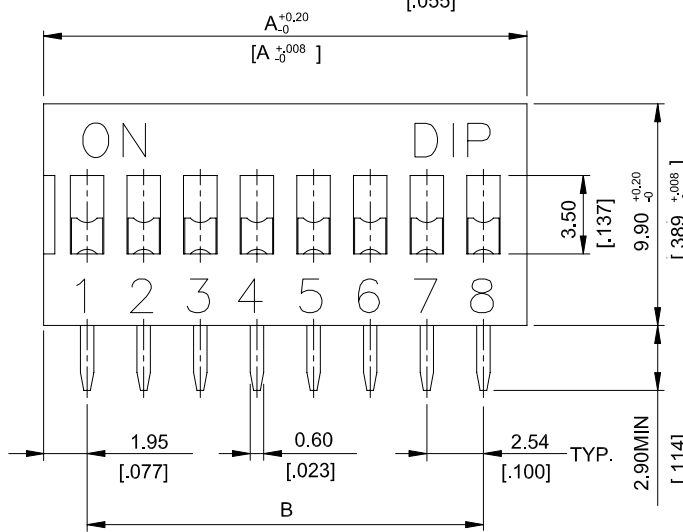


DSR SERIES

DA



P.C.B. LAYOUT

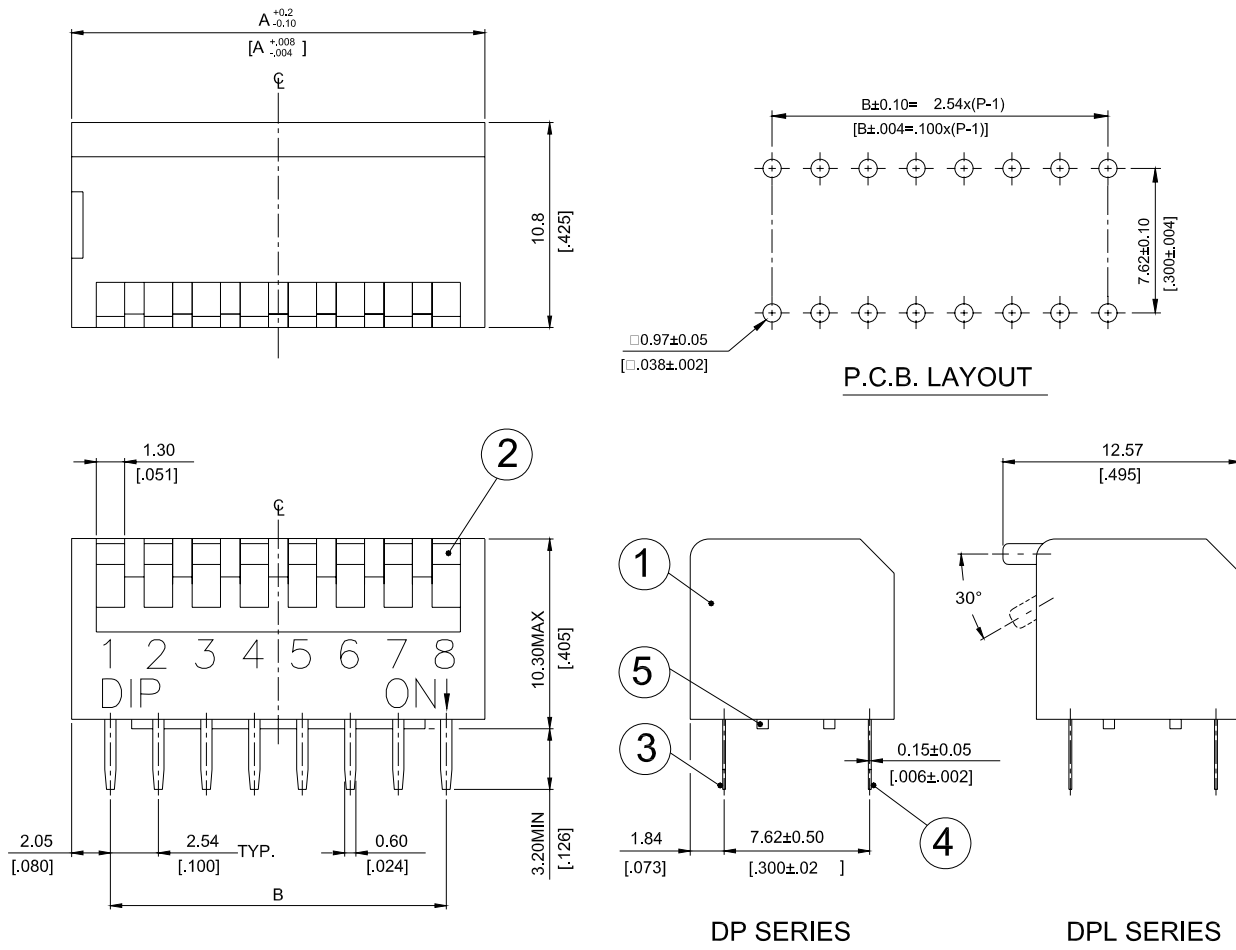


| | | | |
|-----------|-------------|--------------|--------------|
| DA-12 | 12 | 31.84[1.254] | 27.94[1.100] |
| DA-10 | 10 | 26.76[1.054] | 22.86[.900] |
| DA-09 | 9 | 24.22[.954] | 20.32[.800] |
| DA-08 | 8 | 21.68[.854] | 17.78[.700] |
| DA-07 | 7 | 19.14[.754] | 15.24[.600] |
| DA-06 | 6 | 16.60[.654]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

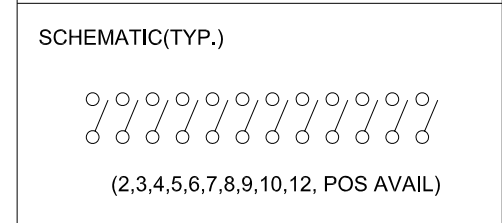
SCHEMATIC(TYP.)



DP(L)



| | | | |
|------------------|-------------|--------------|--------------|
| DP -12 DPL-12 | 12 | 32.04[1.261] | 27.94[1.100] |
| DP -10 DPL-10 | 10 | 26.96[1.061] | 22.86[.900] |
| DP -09 DPL-09 | 9 | 24.42[.961] | 20.32[.800] |
| DP -08 DPL-08 | 8 | 21.88[.861] | 17.78[.700] |
| DP -07 DPL-07 | 7 | 19.34[.761] | 15.24[.600] |
| DP -06 DPL-06 | 6 | 16.80[.661] | 12.70[.500] |
| DP -05 DPL-05 | 5 | 14.26[.561] | 10.16[.400] |
| DP -04 DPL-04 | 4 | 11.72[.461] | 7.62[.300] |
| DP -03 DPL-03 | 3 | 9.18[.361] | 5.08[.200] |
| DP -02 DPL-02 | 2 | 6.64[.261] | 2.54[.100] |
| PROD. NO. | NO. OF POS. | DIM. A | DIM. B |



HOW TO ORDER



Package Style:
 = Tube

Soldering:
V = Lead Free Solderable

Seal:
 = Regular
T = Top Tape Sealed

▲ On/Off Position
 = Push Down On
U = Push Down Off
<▲ U Only For DP(L) >

Color Of Cover
 = Red
▲B = Blue
▲K = Black
<▲ Subject to our final confirmation >

Number Of Positions:
02 = 2 Positions **07 = 7 Positions**
03 = 3 Positions **08 = 8 Positions**
04 = 4 Positions **09 = 9 Positions**
05 = 5 Positions **10 = 10 Positions**
06 = 6 Positions **12 = 12 Positions**

DS = Raised Actuator
 = Recessed Actuator

DA = Raised Actuator

DP = Short Key
 = Long Key

DS = Slide Type Dip Switch
DA = Right Angle Type Dip Switch
DP = Piano Type Dip Switch

SPECIFICATION

△MECHANICAL

Mechanical Life: 2,000 operations per switch.
Operation Force: 400gf max. (DP Series)
1,000gf max. (DS & DA Series)
Stroke: 2.0mm
Operation Temperature: -20°C to +70°C
Storage Temperature: -40°C to +85°C

△ELECTRICAL

Electrical Life: 2,000 operations per switch 24VDC,25mA
Non-Switching Rating: 100mA , 50VDC
Switching Rating: 25mA , 24VDC
Contact Resistance: 50mΩ max. at initial
Insulation Resistance:{at 500 VDC} 100MΩ min.
Dielectric Strength: 500VAC / 1 minute
Circuit: SPST

MATERIALS

△BASE: UL94V-0 PBT Thermoplastic
Color: Black
△COVER UL94V-0 PBT Thermoplastic
Color: Red, Black, Blue
△ACTUATOR: UL94V-0 PBT High Thermoplastic
Color: White
△CONTACT: Phosphor bronze with gold plating over nickel
△TOP SEAL: Polyester Film
△POTTING MATERIAL: Epoxy

SOLDERING PROCESS

△Keep all switch contacts in their “OFF” position for all operations.

△WAVE SOLDERING: Recommended 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 max 5 seconds.

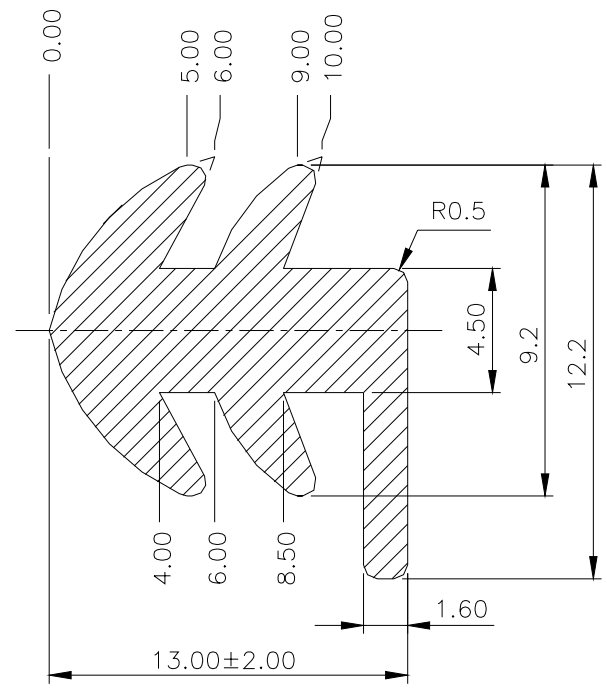
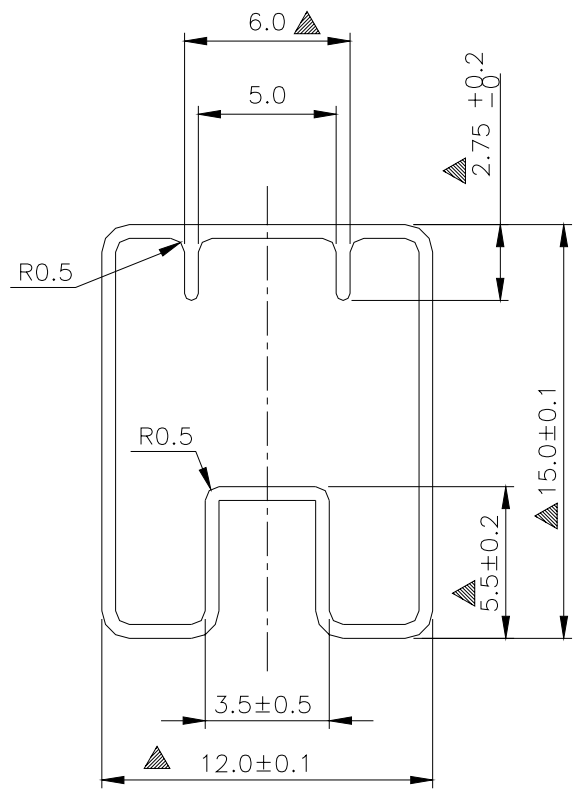
△Make sure switch is in “OFF” position during soldering process, or it will decrease the operating force and meanwhile increase the contact resistance.

△Do not wash the switch body except top tape sealed type, which suitable for spray cleaning method from top of the s/w.

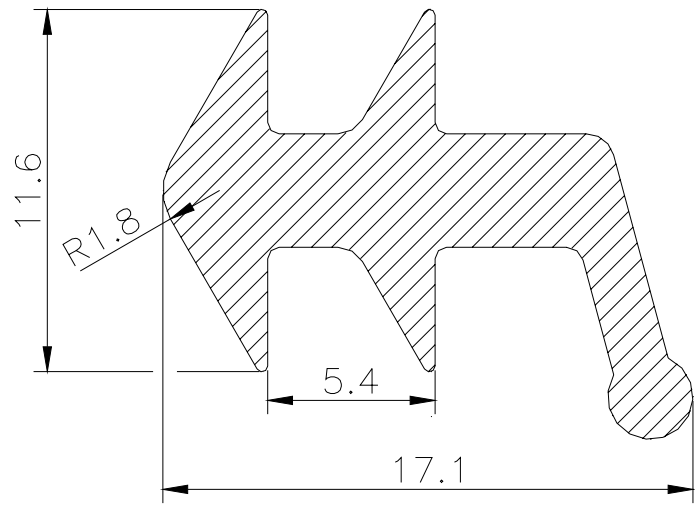
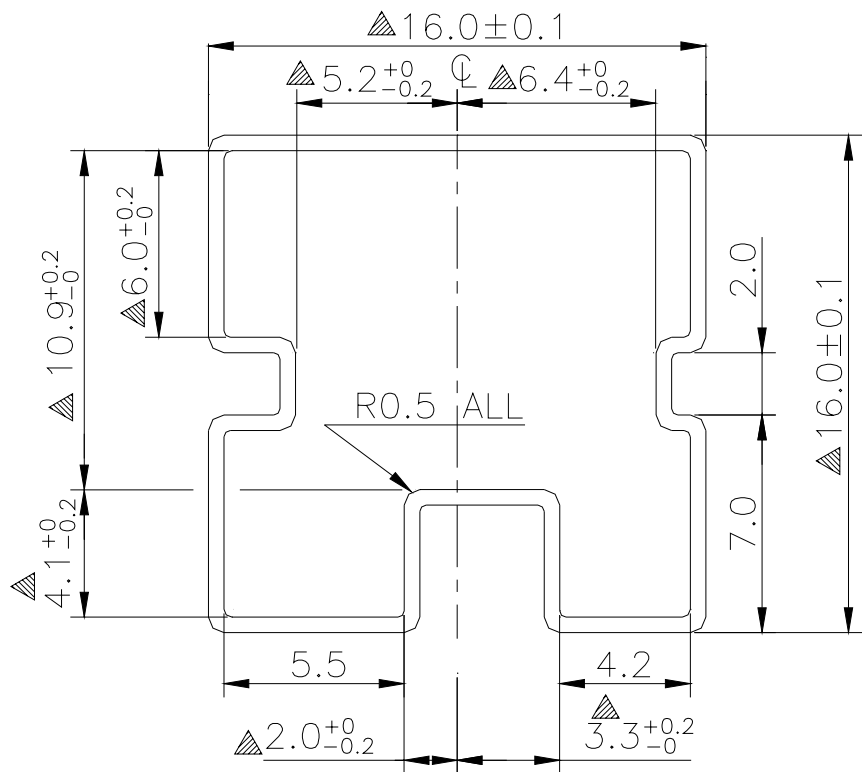
PACKING

| Part Number | Number Per Tube | Part Number | Number Per Tube |
|-------------|-----------------|-------------|-----------------|
| DS(R)-02 | 72 | DS(R)-02-T | 70 |
| DS(R)-03 | 51 | DS(R)-03-T | 50 |
| DS(R)-04 | 40 | DS(R)-04-T | 39 |
| DS(R)-05 | 32 | DS(R)-05-T | 32 |
| DS(R)-06 | 27 | DS(R)-06-T | 28 |
| DS(R)-07 | 24 | DS(R)-07-T | 24 |
| DS(R)-08 | 21 | DS(R)-08-T | 21 |
| DS(R)-09 | 19 | DS(R)-09-T | 19 |
| DS(R)-10 | 17 | DS(R)-10-T | 17 |
| DS(R)-12 | 14 | DS(R)-12-T | 14 |
| DP(L)-02 | 70 | DP(L)-02-T | 65 |
| DP(L)-03 | 50 | DP(L)-03-T | 49 |
| DP(L)-04 | 39 | DP(L)-04-T | 39 |
| DP(L)-05 | 32 | DP(L)-05-T | 32 |
| DP(L)-06 | 27 | DP(L)-06-T | 27 |
| DP(L)-07 | 24 | DP(L)-07-T | 24 |
| DP(L)-08 | 21 | DP(L)-08-T | 21 |
| DP(L)-09 | 19 | DP(L)-09-T | 19 |
| DP(L)-10 | 17 | DP(L)-10-T | 17 |
| DP(L)-12 | 14 | DP(L)-12-T | 14 |
| DA-02 | 73 | DA-02-T | 70 |
| DA-03 | 52 | DA-03-T | 50 |
| DA-04 | 40 | DA-04-T | 39 |
| DA-05 | 33 | DA-05-T | 32 |
| DA-06 | 28 | DA-06-T | 28 |
| DA-07 | 24 | DA-07-T | 24 |
| DA-08 | 21 | DA-08-T | 21 |
| DA-09 | 19 | DA-09-T | 19 |
| DA-10 | 17 | DA-10-T | 17 |
| DA-12 | 14 | DA-12-T | 14 |

DS(R)



DP(L)



DA

