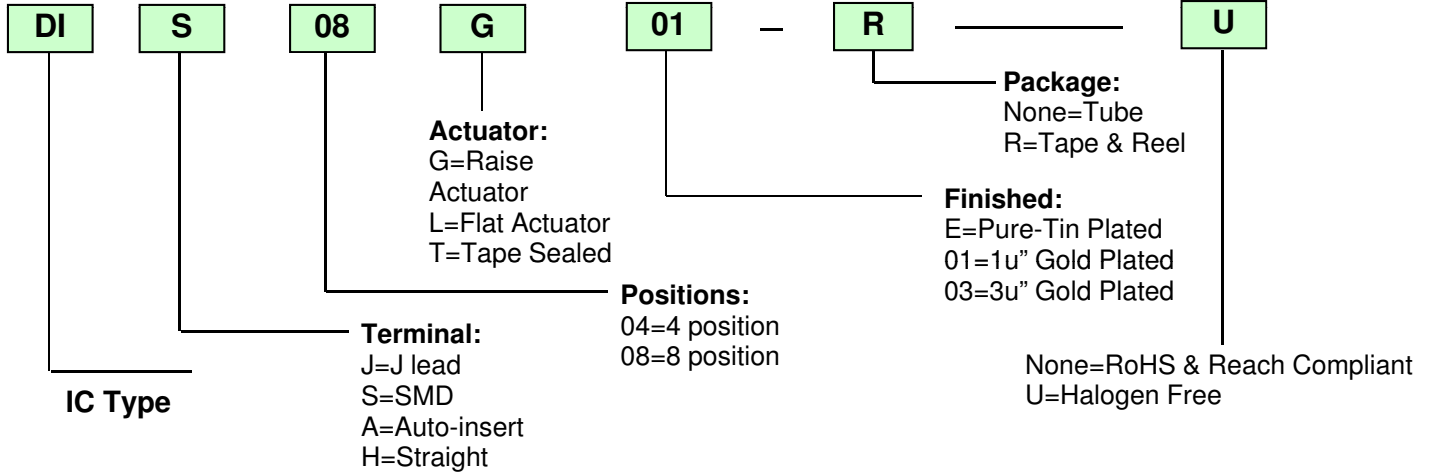


MODEL	SPECIFICATION DIP SWITCH RoHS&REACH Compliant / Halogen Free	SP-001	Page
DI series IC Type			1/4

Order Information



Specifications

◆ Contact Rating	Switching..... 25mA, 24VDC
	Non-Switching..... 100mA, 50VDC
◆ Contact Resistance	Initial..... 50mΩ/Max
	After Reliability Test..... 100mΩ/Max
◆ Insulation Resistance	..... 100MΩ/Min. at 500 VDC
◆ Dielectric Strength	..... 500VDC/ 1 mintue
◆ Operating Force	..... 1,000g/max
◆ Travel	..... 0.9mm
◆ Mechanical Life	..... 5,000 cycles (Min.)
◆ Electrical Life	..... 2,000 cycles /25mA, 24VDC
◆ Operating Temperature	..... -40°C ~ +85°C
◆ Storage Temperature	..... -40°C ~ +85°C

Materials

◆ Cover	RoHS&REACH Compliant.. Thermoplastic UL 94 rate, Black Halogen Free..... Thermoplastic UL 94 rate, Coffee
◆ Base	RoHS&REACH Compliant.. Thermoplastic UL 94 rate, Black Halogen Free..... Thermoplastic UL 94 rate, Coffee
◆ Actuator	..... Thermoplastic UL 94 rate, White
◆ Movable Contact	E type..... Tin-Plated
	01 type..... 1u" Gold-Plated
	03 type..... 3u" Gold-Plated
◆ Terminal Conatct	E type..... Tin-Plated
	01 type..... 1u" Gold-Plated
	03 type..... 3u" Gold-Plated
◆ Terminal	E type..... Tin-Plated
	01 type..... 1" Gold-Plated
	03 type..... 3u" Gold-Plated
◆ Tape	..... Polyimide Film

MODEL	SPECIFICATION	Page
DI series IC Type	DIP SWITCH RoHS&REACH Compliant / Halogen Free	SP-002 2/4

Soldering Information

◆ Hand Soldering

Soldering iron 30W or under at 350°C for 3 sec. max. or at 270°C for 5 sec. max.

◆ Reflow Soldering

- (1) Gold-plated series available 2~3 times process
- (2) Tin-plated series available 1 time process
- (3) Vapor Phase Heating (VPH) switch must with Tape sealed type

◆ Wave Soldering

- (1) For lead free wave solder simulation of typical components, the solder bath temperature shall be maintained to 270°C / 5~10 seconds.

The table copy from IPC/JEDEC J-STD-020 D.1

Profile Feature	Pb-Free Assembly
Preheat / Soak	
Temperature Min (T_{smin})	150°C
Temperature Max (T_{smax})	200°C
Time(t_s) from (T_{smin} to T_{smax})	60 ~120 seconds
Ramp-up Rate (T_L to T_p)	3°C /second max
Liquidous temperature (T_L)	217°C
Time (t_L) maintained above to T_L	60 ~ 150 seconds
Peak package body temperature (T_p)	For users T_p must not exceed the Classification temp:250°C (Package Thickness>2.5mm) For suppliers T_p must equal or exceed the Classification temp:250°C (Package Thickness>2.5mm)
Time (t_p) within 5°C of specified classification temperature (T_c)	30 seconds
Ramp-Down Rate (T_p to T_L)	6°C /second max
Time 25°C to Peak Temperature	8 minutes max
* Tolerance for peak profile temperature(T_p) is defined as a supplier minimum and a user maximum	

Note 1: All temperatures refer to topside of the package, measured on the package body surface.

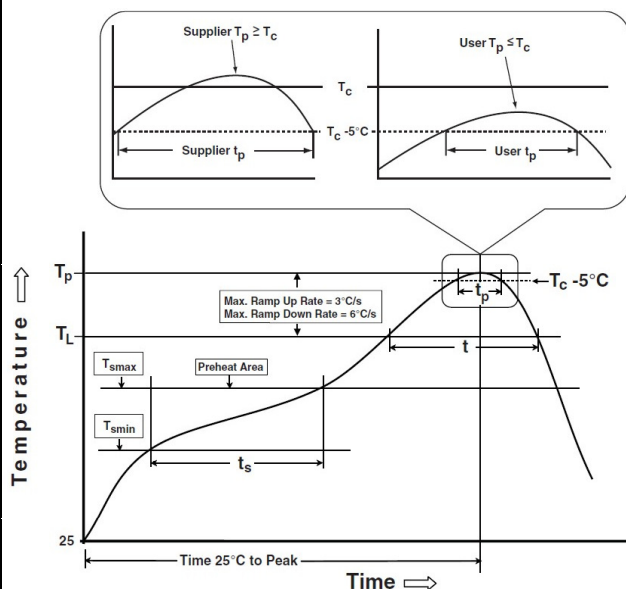
Note 2: Time within 5 °C of actual peak temperature (t_p) specified for the reflow profiles is a "supplier" minimum and "user" maximum.

Switch Operation and Taping

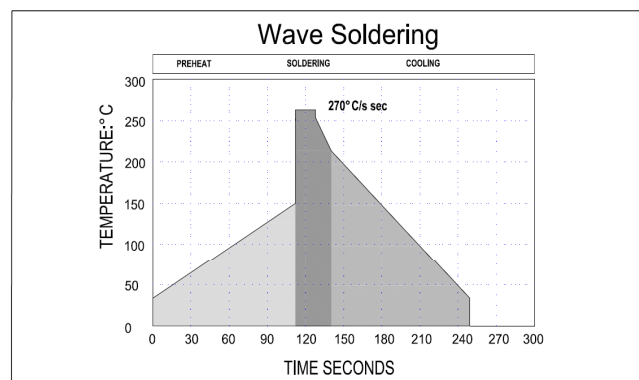
- (1) Use tweezers for operation
- (2) Flux cleaning should be done without removing the Tape.
- (3) If the tape is removed, it adheres less than before when it is placed back on, possibly causing flux inflow.
- (4) Do Not Remove Tape sealed before Reflow processing.
- (5) Ultrasonic cleaning not recommended without Tape sealed.

※ Any flux enters the switch may influence contact function.

Classification Reflow Soldering Profiles



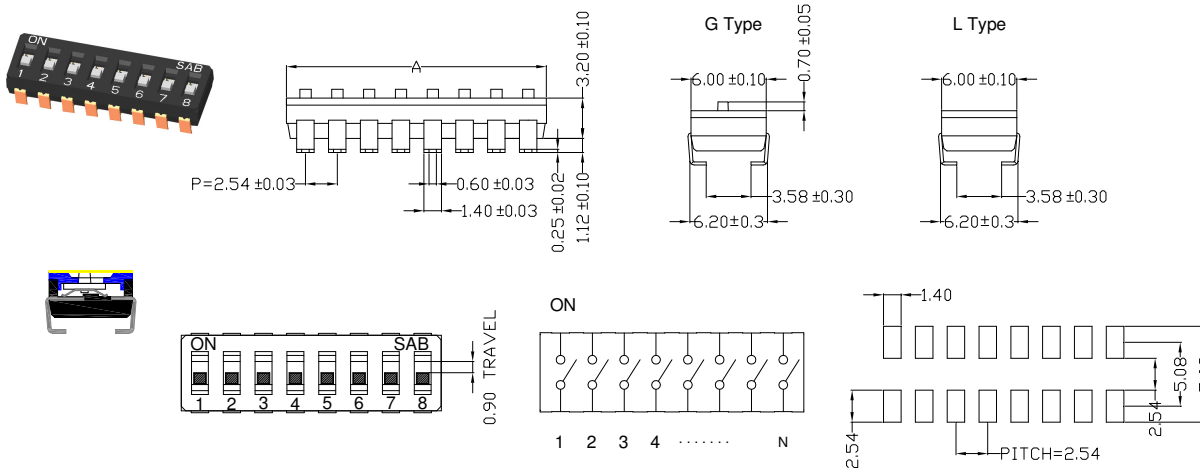
Classification Wave Soldering Profiles



Maximum dwell time in the solder wave (270°C) shall not exceed 5 seconds.

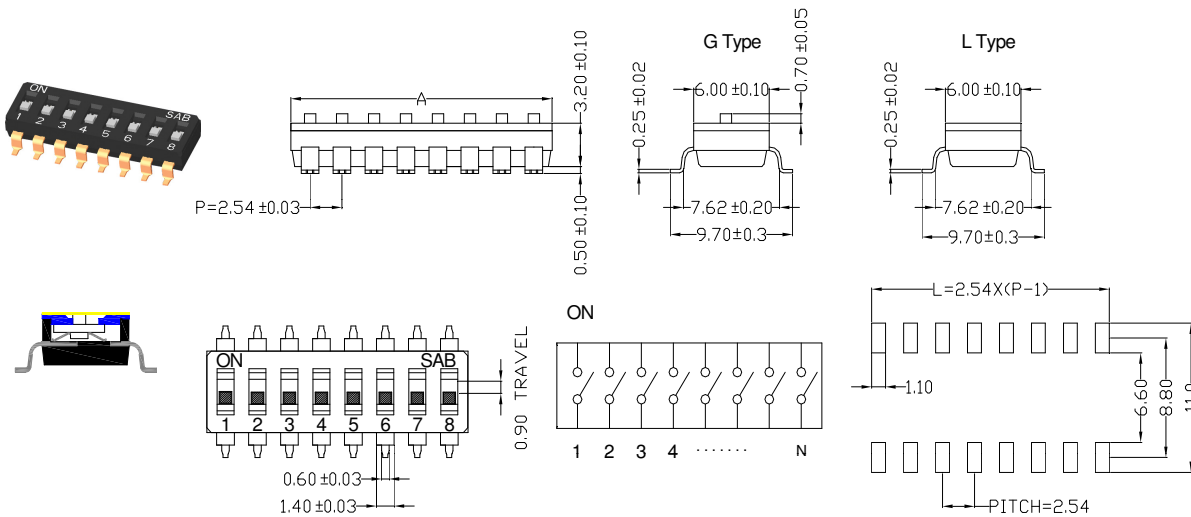
MODEL	SPECIFICATION DIP SWITCH RoHS&REACH Compliant / Halogen Free	SP-003	Page
DI series IC Type			3/4

DIJ



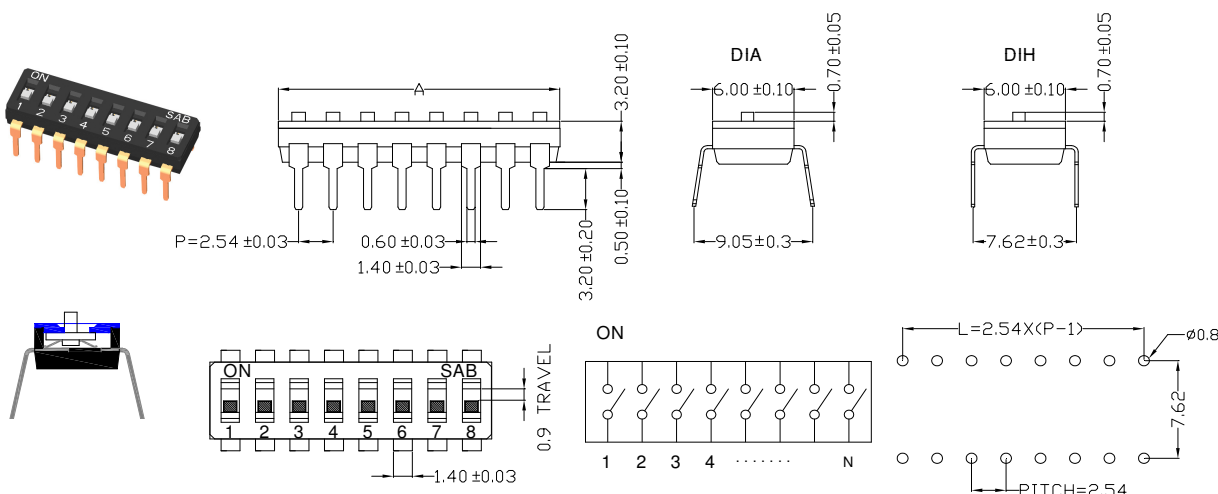
No. Pos.	Dim. "A"
1	2.98
2	5.52
3	8.06
4	10.60
5	13.14
6	15.68
7	18.22
8	20.76
9	23.30
10	25.84
12	30.92

DIS



No. Pos.	Dim. "A"
1	2.98
2	5.52
3	8.06
4	10.60
5	13.14
6	15.68
7	18.22
8	20.76
9	23.30
10	25.84
12	30.92

DIA-H



No. Pos.	Dim. "A"
1	2.98
2	5.52
3	8.06
4	10.60
5	13.14
6	15.68
7	18.22
8	20.76
9	23.30
10	25.84
12	30.92

MODEL	SPECIFICATION DIP SWITCH RoHS&REACH Compliant / Halogen Free	SP-004	Page
DI series IC Type			4/4

Tube Package

POLE	1	2	3	4	5	6	7	8	9	10	12
TUBE	174	95	65	48	39	33	28	25	22	20	17
BOX	17400	9500	6500	4800	3900	3300	2800	2500	2200	2000	1700
CTN 1	34800	19000	13000	9600	7800	6600	5600	5000	4400	4000	3400
CTN 2	69600	38000	26000	19200	15600	13200	11200	10000	8800	8000	6800

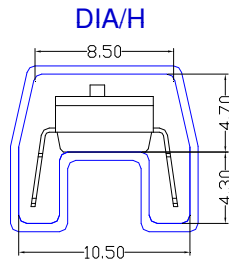
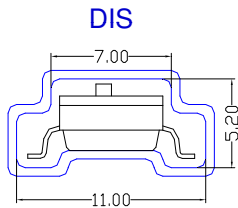
Tape & Reel Package

◆ DIS

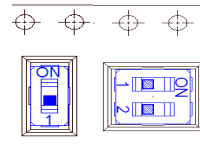
POLE	01	02	03	04	05	06	07	08	09	10	12
Pitch (mm)	8	8	16	16	16	16	16	16	16	16	16
Width (mm)	16	16	16	24	24	24	32	32	44	44	44
G type / Reel	1500	1500	800	800	800	800	800	800	800	800	800
L type / Reel	2000	2000	1000	1000	1000	1000	1000	1000	1000	1000	1000

◆ DIJ

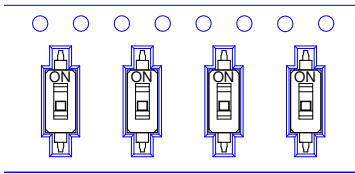
POLE	01	02	03	04	05	06	07	08	09	10	12
Pitch (mm)	8	12	12	12	12	12	12	12	12	12	12
Width (mm)	16	16	16	24	24	24	32	32	44	44	44
G type / Reel	1500	900	900	900	900	900	900	900	900	900	900
L type / Reel	1600	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100



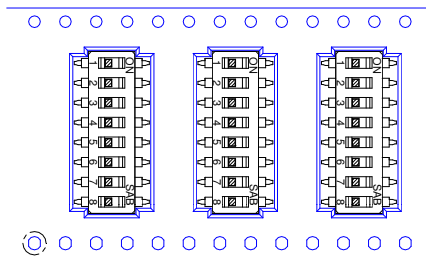
DIJ01/DIJ02



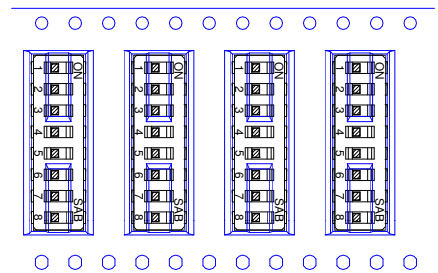
DIS01/DIS02



DIS03~12



DIJ03~12



Box Dimension

- ◆ Tube 57.0cm x 13.0cm x 12.5cm
- ◆ Tape & Reel 34.5cm x 34.5cm x 15.0cm

Carton Dimension

- ◆ Tube
 - 2 Boxes..... 58.5cm x 29.0cm x 15.0cm
 - 4 Boxes..... 58.5cm x 28.0cm x 27.0cm
- ◆ Tape & Reel
 - 1 Box..... 34.5cm x 34.5cm x 15.0cm
 - 2 Boxes..... 36.0cm x 27.5cm x 37.0cm