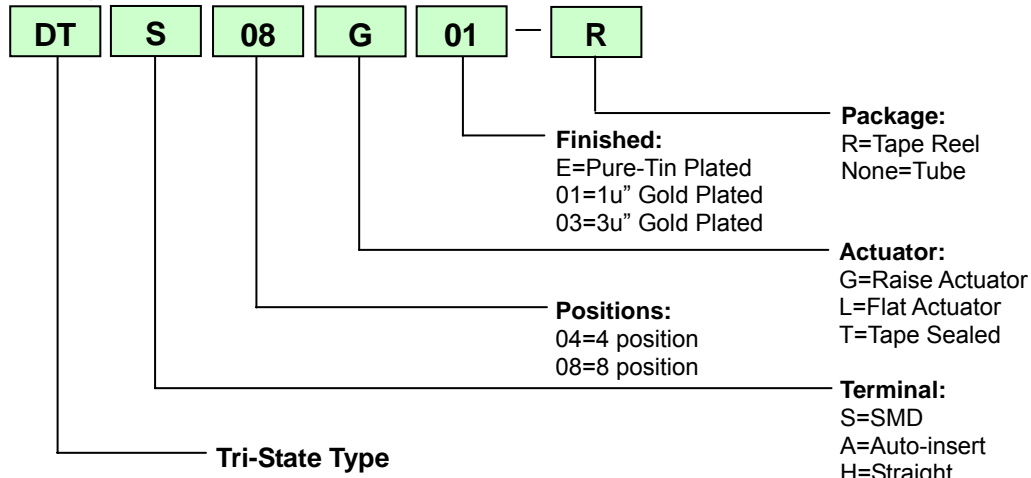


**Ordering Information:**



Pure-Tin plated allow customer special order only

**Specifications**

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

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### **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**

For lead free wave solder simulation of typical components, the solder bath temperature

Shall be maintained to 275°C.

The hold time in the solder shall be 10 +2/-0 seconds.

◆ **Keep all actuators in "OFF" position during soldering and cleaning process.**

### Classification Reflow Profiles

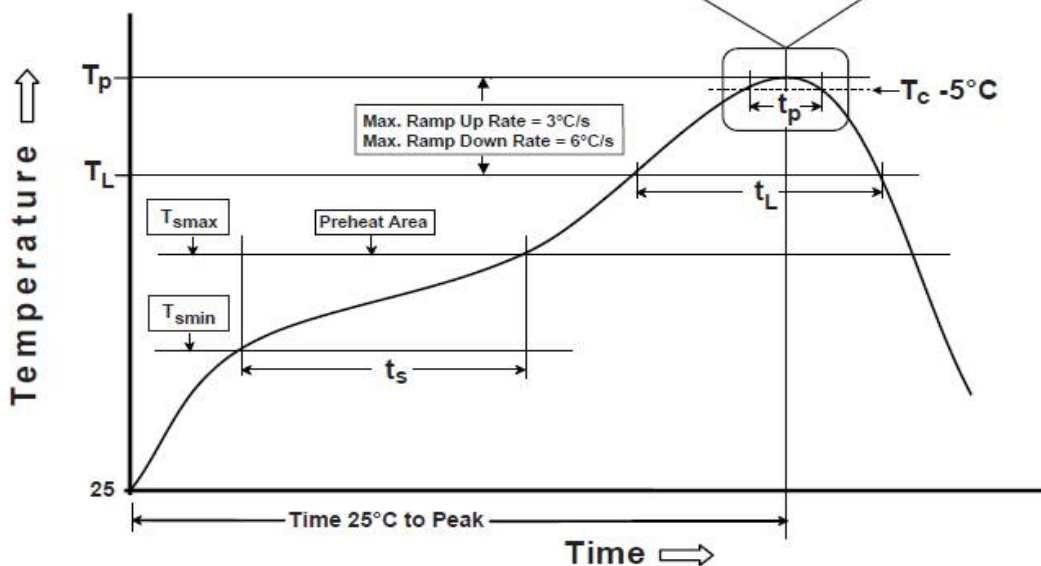
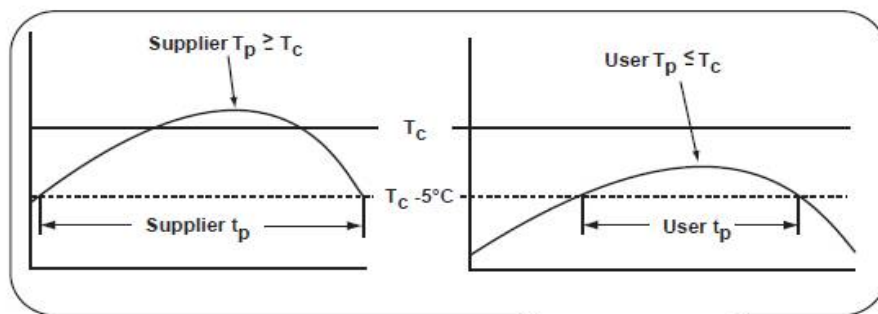
Profile Feature	Pb-Free Assembly
<b>Preheat / Soak</b>	
Temperature Min ( $T_{smin}$ )	150°C
Temperature Max ( $T_{smax}$ )	200°C
Time(ts) from ( $T_{smin}$ to $T_{smax}$ )	60 ~120 seconds
Ramp-up Rate ( $T_L$ to $T_p$ )	3°C/second max
Liquidous temperature ( $T_L$ )	217°C
Time ( $t_L$ ) maintained above to $T_L$	60 ~ 150 seconds
Peak package body temperature ( $T_p$ )	For users $T_p$ must not exceed the Classification temp:260°C (Package Thickness:1.6~2.5mm) For suppliers $T_p$ must equal or exceed the Classification temp:260°C (Package Thickness:1.6~2.5mm)
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.

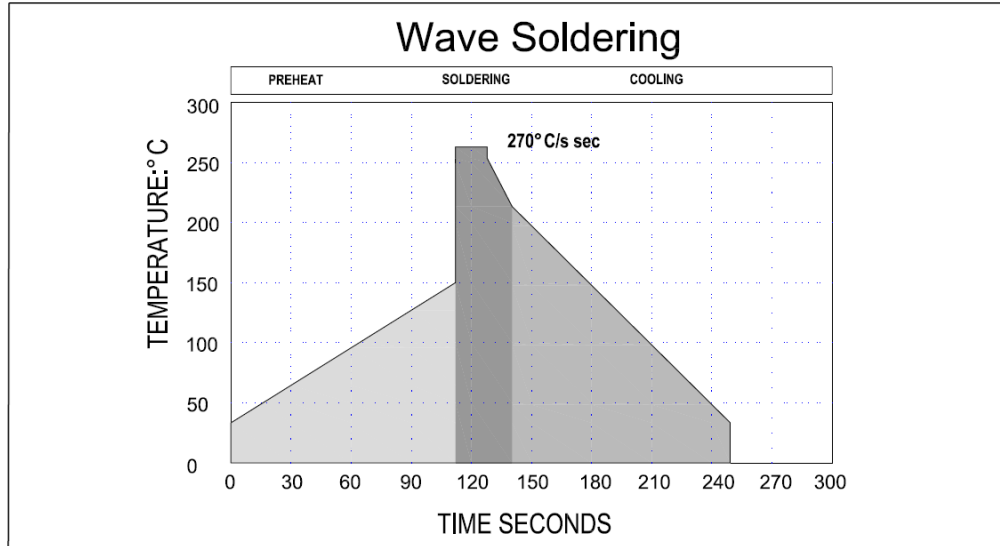
**Note 2:** Time within 5 °C of actual peak temperature ( $t_p$ ) specified for the reflow profiles is a “supplier” minimum and “user” maximum.

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

### Reflow Soldering Standard Conditions



### Classification Wave Soldering Profiles



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

### Switch Operation and Taping

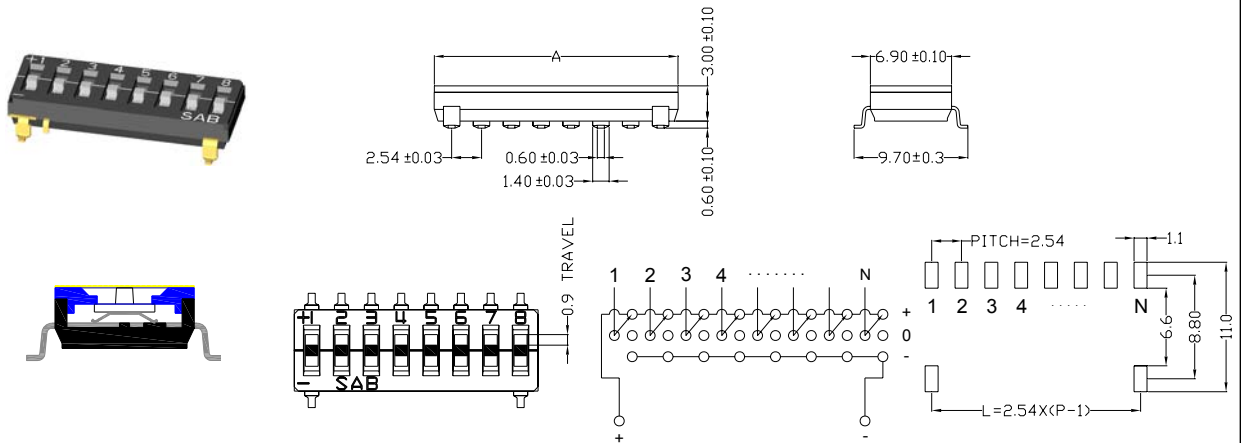
- (1) Use tweezers or ball-point pen for operation.
- (2) Flux cleaning should be done without removing the Tape.
- (3) If the tape is removed, it adheres less than before when it is placed back on, possibly causing flux inflow
- (4) Do Not Remove Tape sealed before Reflow processing
- (5) Ultrasonic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

- ⊗ All switches must set in OFF position when through Soldering process.
- ⊗ Any flux enters the switch may influence contact function.

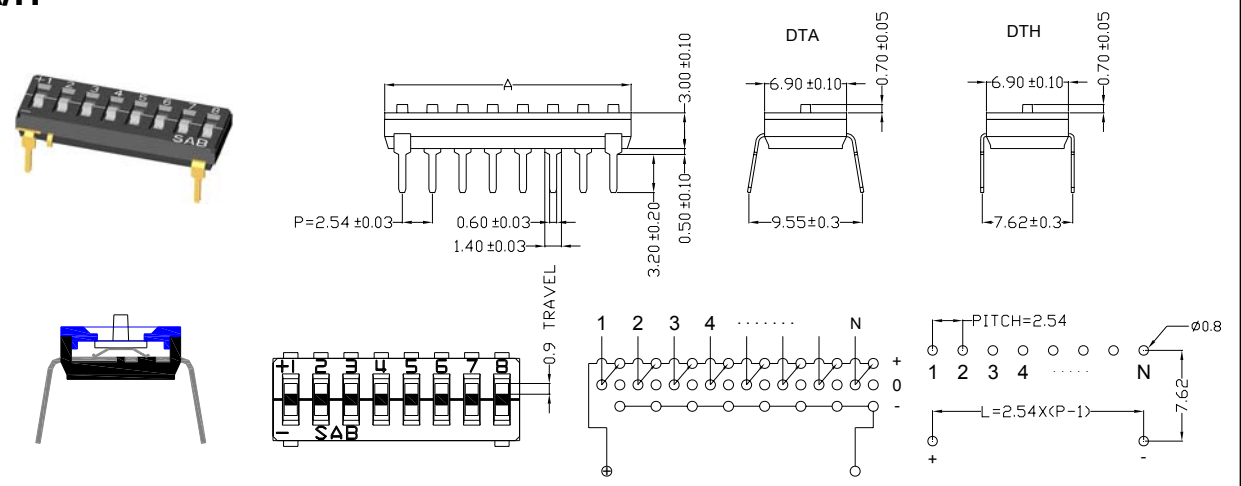
**Materials:**

- ◆ Cover .....PPS (UL 94V-0), Black
- ◆ Base .....PPS (UL 94V-0), Black
- ◆ Actuator DTS.....PA46 (UL 94V-0), White  
DTA/H.....PA66 (UL 94V-0), White
- ◆ Terminal Contact .....Gold Plated / Pure-Tin Plated
- ◆ Movable Contact .....Gold Plated / Pure-Tin Plated
- ◆ Terminal .....40u" +/-10u" Nickel Cover (Pure) Tin-Plated  
.....40u" +/-10u" Nickel Cover 1u" Gold-Plated  
.....40u" +/-10u" Nickel Cover 3u" Gold-Plated
- ◆ Tape .....Polyimide Film

**DTS**



**DTA/H**



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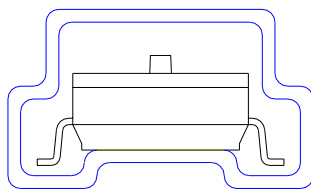
**Part Number Table:**

No. Pos.	Dim. "A"	Auto Insert Pure-Tin Lead Raise Actuator Tube Package	Auto Insert 1u" Gold Lead Raise Actuator Tube Package	SMD 3u" Gold Lead Tape Sealed Tube Package
4	10.60	DTA04GE	DTA04G01	DTS04T03
6	15.68	DTA06GE	DTA06G01	DTS06T03
7	18.22	DTA07GE	DTA07G01	DTS07T03
8	20.76	DTA08GE	DTA08G01	DTS08T03
9	23.30	DTA09GE	DTA09G01	DTS09T03
10	25.84	DTA10GE	DTA10G01	DTS10T03
12	30.92	DTA12GE	DTA12G01	DTS12T03

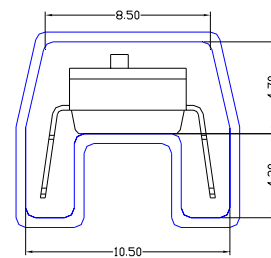
**Tube Package:**

POLE	4	7	8	9	10	12
TUBE	48	28	25	22	20	17
BOX	4800	2800	2500	2200	2000	1700
CTN 1	9600	5600	5000	4400	4000	3400
CTN 2	19200	11200	10000	8800	8000	6800

**DTS**



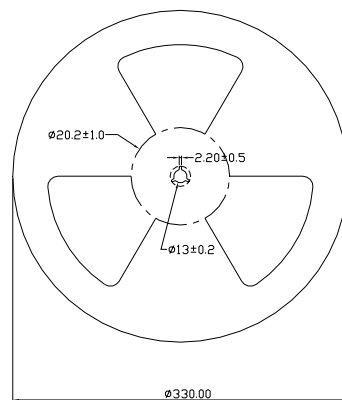
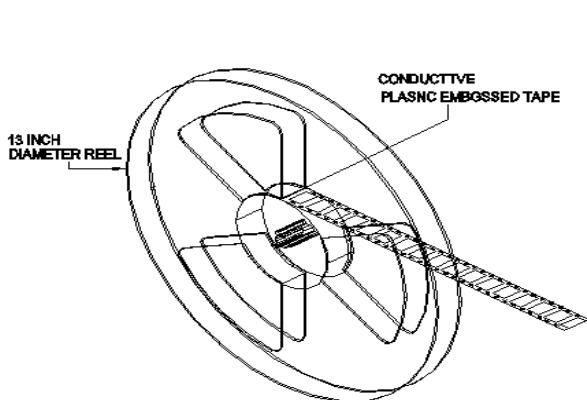
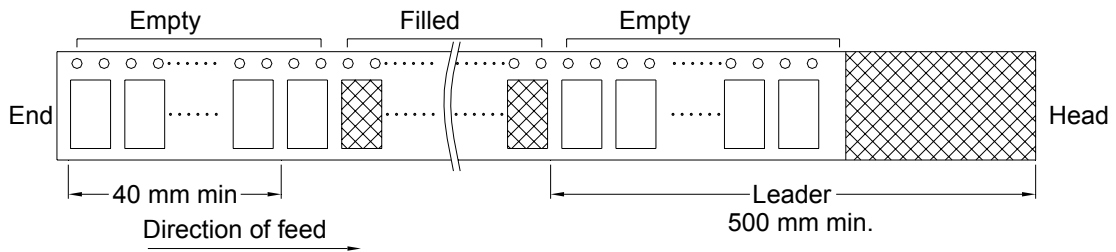
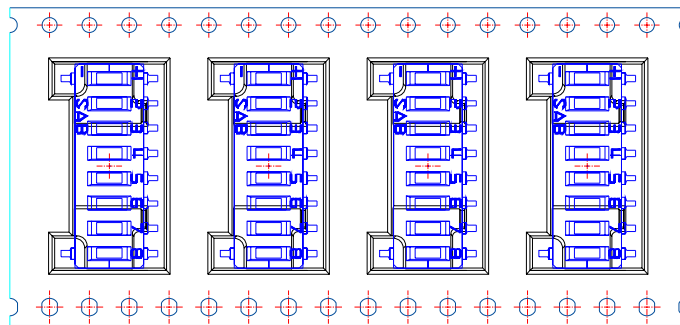
**DTA/H**



### Tape & Reel package

◆ DTA/H/S

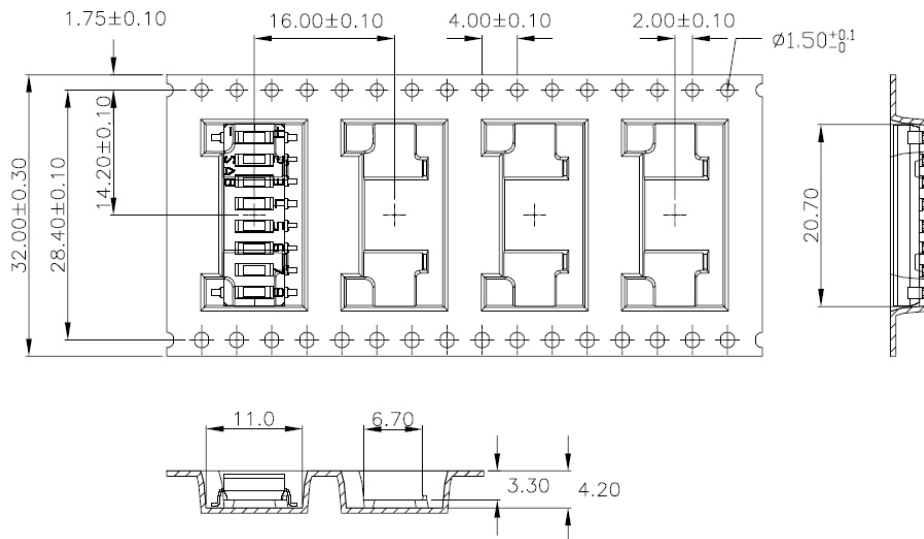
POLE	04	07	08	09	10	12
Pitch (mm)	16	16	16	16	16	16
Width (mm)	24	32	32	44	44	44
REEL	800	800	800	800	800	800



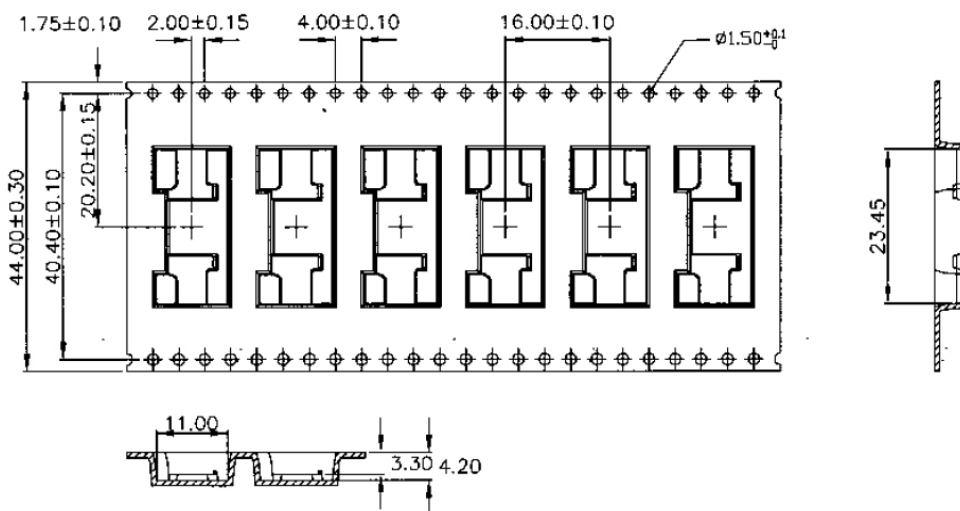
**Carry Tape Table:**

P/N.	Pitch(mm)	Thickness(mm)	Width (mm)	Sellotape(mm)	@REEL/BOX	Q'ty/Reel
DTS04	16	0.35	24	21.3	4	800
DTS06	16	0.35	24	21.3		800
DTS07	16	0.35	32	25.5	3	800
DTS08	16	0.35	32	25.5		800
DTS09	16	0.4	44	37.5	2	800
DTS10	16	0.4	44	37.5		800
DTS12	16	0.4	44	37.5		800

**32mm**



**44mm**





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**Box Dimension:**

- ◆ Tube.....56cm × 12cm × 12cm
- ◆ Tape & Reel.....34cm x 12cm x 33cm

**Carton Dimension:**

- ◆ Tube
  - CTN 1 / 2 Boxes.....58.5cm x 26.5cm x 16cm
  - CTN 2 / 4 Boxes.....58.5cm x 26.5cm x 24cm
- ◆ Tape & Reel.....34cm x 26cm x 35cm

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