



Specification

Electrical Ratings

- Contact Ratings:** 25mA, 24VDC
- Contact Resistance:** 50mΩ Max initially; 100mΩ after life
- Insulation Resistance:** 100MΩ min at 500VDC
- Dielectric Strength:** 500VDC per 1 min at 1MHz.

Environmental Ratings

- Operation Temperature:** -40 to 85
- Storage Temperature:** -40 to 85

Mechanical Ratings

- Mechanical Life:** 3,000 times for per actuator.
- Vibration:** MIL-STD-202F, Method 213
- Mechanical Shock:** MIL-STD-202F, Method 213
- Moisture Resistance:** MIL-STD-202F, Method 106
- Flux Cleaning:** using Freon (TF or TE) for getting excellent results.
- Operation Force:** 1,000g Maximum.
- Vibration:** per MIL-STD-202F, Method 204D, 10-50-10HZ, 20G/0.06 inch double amplitude, no mechanical damage, no change of switch setting after the best performed for 90 minutes in each of perpendicular direction.
- Shock:** per MIL-STD-202F, Method 213B, 1000G, 0.5ms half-sine waveform with no mechanical damage, no change of switch setting after test performed 5 times in each X, Y, Z direction.
- Thermal Shock:** MIL-STD-202F, Method 107G, for 5 cycles, (1 cycle: -55, 25, 85, 25) Condition A.
- Humidity:** per MIL-STD-202F Method 103B, in a dry oven at a temperature of 40 and to humidity of 90% to 95% at 240 hours test time.
- Life (heat proof):** per MIL-STD-202F Method 108A, Condition A & Condition B
- Switch Position:** all actuator in "OFF" position when shipping.

Precaution

Soldering

(1)Hand Soldering

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

(2)Reflow Soldering

- a: Gold-plated series available 2~3 times process.
- b: Tin-plated series available 1 time process.
- c: 260 ±5 within 60 sec for reflow. In-line or Batch system. Apply reflow soldering only once.
- d: Vapor Phase Heating (VPH) switch must with Tape sealed type

(3)Wave soldering

For lead free wave solder simulation of typical components, the solder bath temperature Shall be maintained to 275. The hold time in the solder shall be 10 +2/-0 seconds.

Flux Cleaning

- (1)Solvent: fluorine or alcohol type.
- (2)Do not apply ultrasonic cleaning.
- (3)L & G Type are unallow under Flux cleaning.
- (4)Do not operate the switch during soldering and cleaning.

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

Classification Reflow Profiles

Profile Feature	Pb-Free Assembly
Preheat / Soak	
Temperature Min (T _{smin})	150
Temperature Max (T _{smax})	200
Time(ts) from (T _{smin} to T _{smax})	60 ~120 seconds
Ramp-up Rate (T _L to T _p)	3 /second max
Liquidous temperature (T _L)	217
Time (t _L) maintained above to T _L	60 ~ 150 seconds
Peak package body temperature (T _p)	<p align="center">For SO&HT Series</p> For users T _p must not exceed the Classification temp:260 (Package Thickness:1.6~2.5mm) For suppliers T _p must equal or exceed the Classification temp:260 (Package Thickness:1.6~2.5mm)
	<p align="center">For DI/DT/DP/BS/BP/NP/DM/SI/BA Series</p> For users T _p must not exceed the Classification temp:250 (Package Thickness>2.5mm) For suppliers T _p must equal or exceed the Classification temp:250 (Package Thickness>2.5mm)
Time (tp) within 5 of specified classification Temperature (T _c)	30 seconds
Ramp-Down Rate (T _p to T _L)	6 /second max
Time 25 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 of actual peak temperature (tp) specified for the reflow profiles is a "supplier" minimum and "user" maximum.