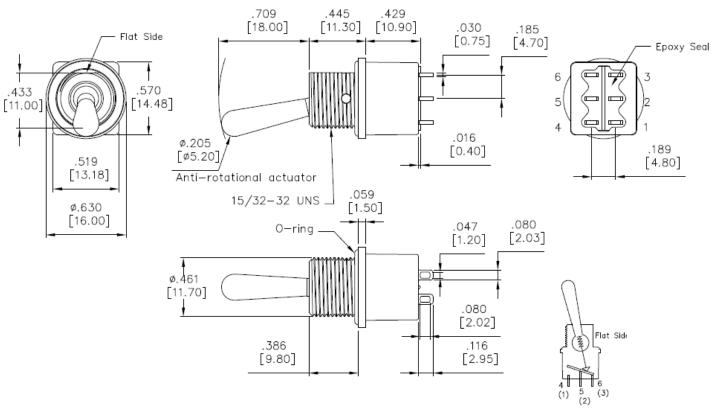


## Product Datasheet **Toggle Switch**Switch Sealed Toggle Miniature

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## Package Contain:

- 1 x Toggle Switch
- 1 x Hex Nut
- 1 x Washer
- 1 x O-ring

## Specification:

| SWITCH TYPE:                            |                               | 8200508   |
|---|-------------------------------|---|
| POLES/THROWS:                           |                               | DPDT  |
| SWITCH FUNCTIONS:                       |                               | ON-MOM.   |
| ELECTRICAL & MECHANICAL CHARACTERISTICS | CONTACT RATING:               | MAX. 5Amps @ 125VAC or 28VDC, 2A @ 250VAC   |
|   | ELECTRICAL LIFE:              | 50,000 make-and-break cycles at full load   |
|   | MECHANICAL LIFE:              | Min. 50,000 cycles without load   |
|   | CONTACT<br>RESISTANCE:        | 10m-ohms max. initial @ 2-4VDC, 100mA   |
|   | INSULATION<br>RESISTANCE:     | Apply 500VDC for 1min±5sec. After which measurement to be made between live parts and dead-metal parts shall result 1000M-ohms min.   |
|   | DIELECTRICAL<br>STRENGTH:     | 1,500VAC (50Hz-60Hz) RMS @ sea level shall result no damage to parts arcing or flashover  |
|   | OPERATING<br>TEMPERATURE:     | -30Celsius degree to +85Celsius degree  |
|   | SOLDERING ABILITY:            | Per MIL-STD-202F method 208D,max soldering temperature @ 260Celsius degree, flux 5-10sec, duration of solder immersion 5+/-1sec. shall result no antisoldering and the coverage of dipping into solder must be more than 90%  |
|   | TORQUE:                       | 20Nm max. applied to nut  |
|   | IP PROTECTION CLASS:          | Protected against water immersion - Immersion for 24 hours at a depth of 1 meter Per IEC 60529 IP-67  |
|   | SOLDERING HEAT<br>RESISTANCE: | Max soldering temperature @ 260Celsius degree, immersion time 5+/-1sec, frequency of soldering process @ 2 times max.   |
|   | SOLDERING<br>ABILITY:         | Per MIL-STD-202F method 208D,max soldering temperature @ 260Celsius degree, flux 5-10sec, duration of solder immersion 5+/-1sec. shall result no antisoldering and the coverage of dipping into solder must be more than 90%  |
|   | COLD TEST:                    | Stored at temperature –30(+/-3)Celsius degree for 48 hours, shall result no changes to switch's electrical performance  |
|   | HOT TEST:                     | Stored at temperature +85(+/-3)Celsius degree for 48 hours, shall result no changes to switch's electrical performance  |
|   | HUMIDITY TEST:                | Stored at temperature 85(+/-3)Celsius degree with relative humidity 90%~95% for 48 hours, shall result no changes to switch's electrical performance  |
|   | SALT SPRAY<br>RESISTANCE:     | Stored at temperature @ 35(+/-3)Celsius degree, and salt solution concentration of 5% with full air temperature @ 47(+/-3) Celsius degree and air pressure 1.0kg for 48 hours. The switch shall result no corrosion as well as no apparent changes to its functional performance. Per ASTM-B117 & JIS-Z371 STD. |



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| MATERIAL CHARACTERISTICS               | EXTERNAL SHELL:   | FR52 Nylon Black, flame retardant, heat stabilized (UL 94V-0)   |
|  | ACTUATOR:   | Brass, black finished with internal o-ring sealed standard  |
|  | BUSHING:  | Brass, black finished   |
|  | SWITCH BASE:  | Diallyl phthalate (DAP) (UL 94V-0)  |
|  | MOVABLE CONTACT:  | Copper alloy, silver plated   |
|  | TERMINAL CONTACT:   | Copper alloy, gold over silver plated   |
|  | ALL TERMINALS:  | Copper alloy, gold over silver plated   |
|  | SPRING:   | Piano wire  |
|  | TERMINAL SEAL:  | Epoxy sealed  |
|  | HARDWARE:   | Nut – brass, black finished   |
|  |   | Washer – steel, black finished  |
|  | ACCESSARY:  | Bushing o-ring (silicone) for panel seal  |
|  | HARDWARE:   | Nut – brass nickel plated   |
|  |   | Washer – steel nickel plated  |
| SOLDERING & CLEANING<br>RECOMMENDATION | HAND SOLDERING:   | Max. temperature @ 350Celsius degree (662F)with continuous soldering time @ 3sec. max. Recommend lead-free solder paste Sn96.5Ag3Cu0.5, soldering irons of 25-40 watts max. and solder of 0.030~0.040 dia.  |
|  | WAVE SOLDERING:   | No-clean flux wave soldering is recommended so the switch does not require washing after soldering process. Noted, not to have flux migrate inside the switch through the top of the housing or actuator to prevent contamination. Max temperature @ 260Celsius degree (500F) for 10 sec. |
|  | CLEANING PROCESS:   | The switch has IP67 protection against the effect of temporary immersion so it can withstand most common cleaning processes today. Cleaning agents are not allowed to enter into the body of the switch during flux removal process.  |
| PACKAGE                                | INTERNAL<br>PACKAGING:  | 1pcs per PE bag   |
|  | RoHS<br>IDENTIFICATIONS:  | Bag is attached with a label marking "RoHS"   |
| _ ∞ _                                  | The switch is suitable for power rated applications, rating recommendation is per aforementioned above (Contact rating section)   |   |
| PRODUCT<br>HANDLING<br>STORING         | Problem relates to terminal oxidization can be prevented by storing product in an environment that is dry and cool with the relative humidity less than 90%. Noted, prior to mounting products onto circuit board as well as for unused units, it is recommended to keep them in the bag and with the bag sealed. |   |