

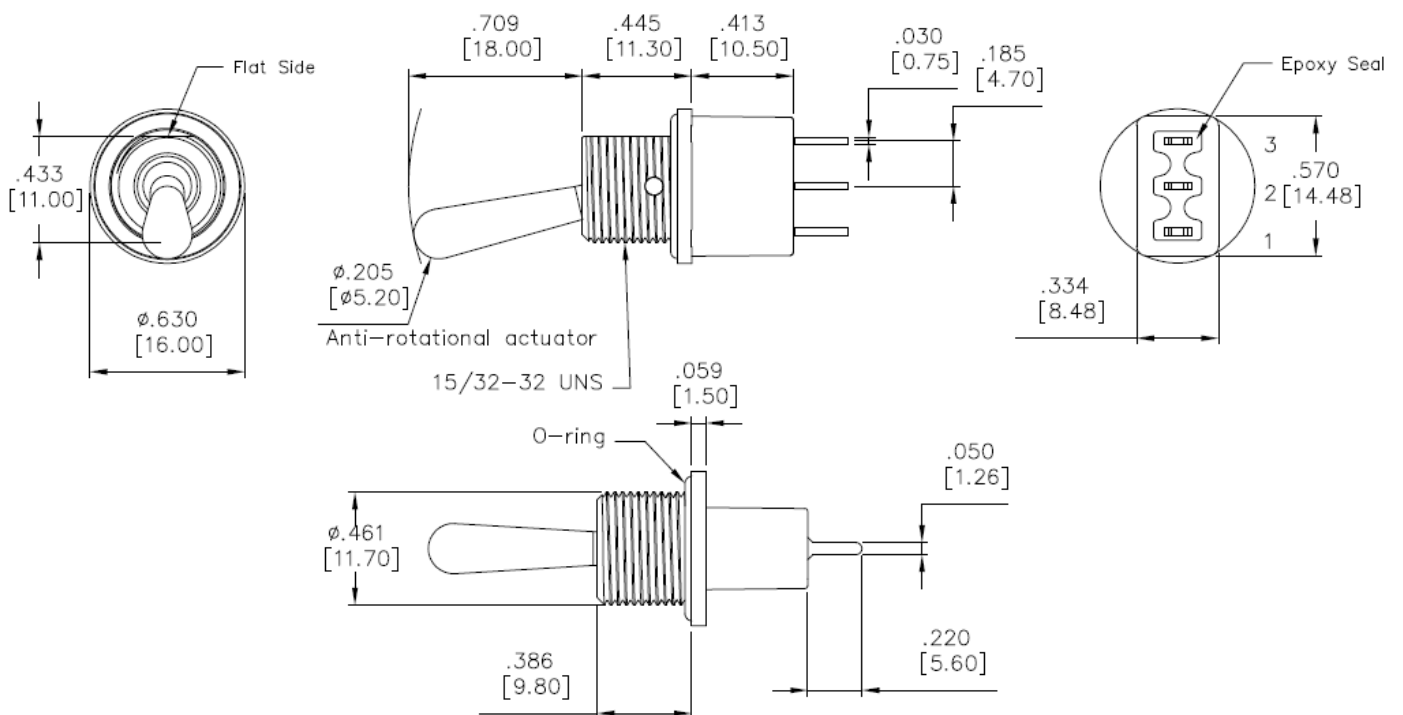


# Product Datasheet

## Toggle Switch

### Switch Sealed Toggle Miniature

ENGLISH





Package Contain:

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

Specification:

SWITCH TYPE:		8200539
POLES/THROWS:		SPDT
SWITCH FUNCTIONS:		ON-ON
ELECTRICAL & MECHANICAL CHARACTERISTICS	CONTACT RATING:	MAX. 0.4VA @ 20VDC or AC
	ELECTRICAL LIFE:	50,000 make-and-break cycles at full load
	MECHANICAL LIFE:	Min. 50,000 cycles without load
	CONTACT RESISTANCE:	10m-ohms max. initial @ 2-4VDC, 100mA
	INSULATION 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 STRENGTH:	1,500VAC (50Hz-60Hz) RMS @ sea level shall result no damage to parts arcing or flashover
	OPERATING 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 anti-soldering 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 RESISTANCE:	Max soldering temperature @ 260Celsius degree, immersion time 5+/-1sec, frequency of soldering process @ 2 times max.
	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 anti-soldering 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 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.	

<b>MATERIAL CHARACTERISTICS</b>	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, gold over nickel plated
	TERMINAL CONTACT:	Copper alloy, gold over nickel plated
	ALL TERMINALS:	Copper alloy, gold over nickel 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
<b>SOLDERING &amp; CLEANING RECOMMENDATION</b>	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.
<b>PACKAGE</b>	INTERNAL PACKAGING:	1pcs per PE bag
	RoHS IDENTIFICATIONS:	Bag is attached with a label marking “RoHS”
<b>PRODUCT HANDLING &amp; STORING</b>	<p>The switch is suitable for low level / dry circuit applications, rating recommendation is per aforementioned above (Contact rating section)</p> <p>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.</p>	