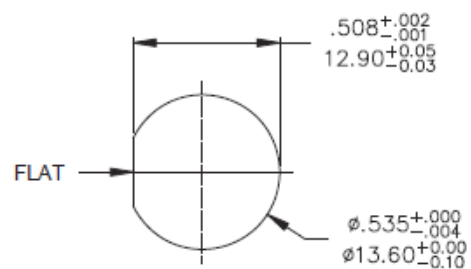
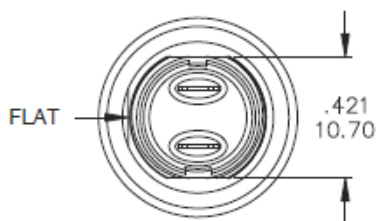
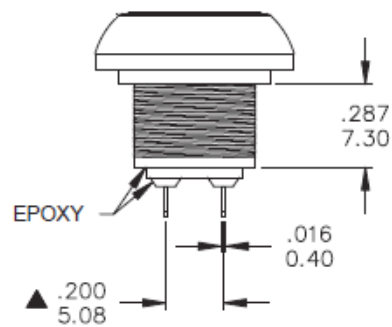
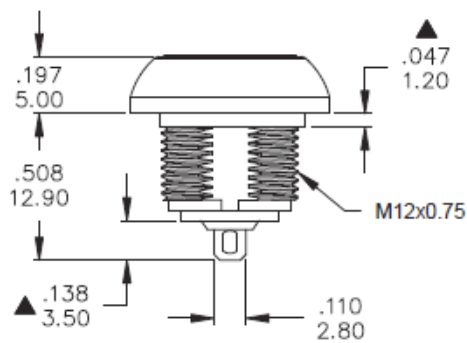




Datasheet

RS PRO Sub-Miniature Pushbutton Switches

EN



PANEL CUT-OUT

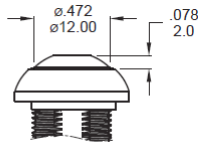
THICKNESS: 1.5 mm ~ 4.0 mm



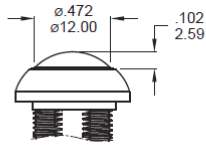
The picture above is for reference only.

CAP OPTIONS

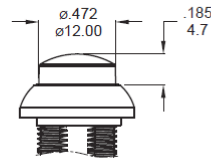
FLAT



ROUND Non-LED



HIGH Non-LED

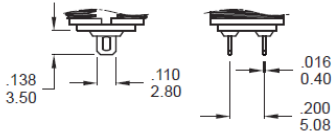


* Only flat cap available with LED.

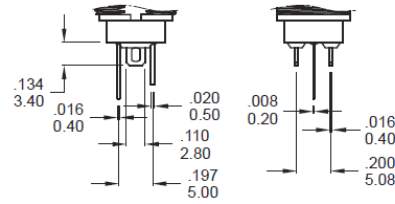
CAP COLOR	ITEM NO.		
	Matte	Bright	Bright
White	01M	A1S	G1S
Black (Std)	02M	A2S	G2S
Red (Std)	03M	A3S	G3S
Yellow	05M	A5S	G5S
Green	06M	A6S	G6S
Blue	07M	A7S	G7S

TERMINATION OPTIONS

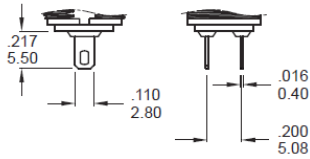
M1 Solder lug



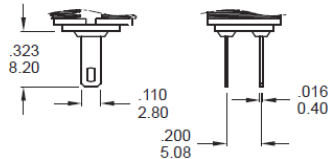
M1 Solder lug (PFS6, With LED)



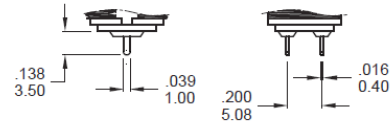
M2 Solder lug



M3 Solder lug



M4 PC Thru-hole



Specifications:

MAX. CURRENT/VOLTAGE RATING WITH RESISTIVE LOAD : 400mA 32VAC - 200 mA 50VDC - 125 mA

125VAC. INITIAL CONTACT RESISTANCE : 50mΩmax.

INSULATION RESISTANCE : 1GΩmin.at 500VDC.

DIELECTRIC STRENGTH : 1,500 VAC rms.

ELECTRICAL LIFE AT FULL LOAD : 500,000 cycles.

OPERATING TEMPERATURE : -30°C to 85°C.

PANEL THICKNESS : 1.5 mm (.059) min. -4 mm (.157) max.

TOTAL TRAVEL : 1.5 mm(.059)

OPERATING FORCE : 3N-6N

CONTACT BOUNCE : 10 ms.

MECHANICAL LIFE : 1,000,000 cycles.

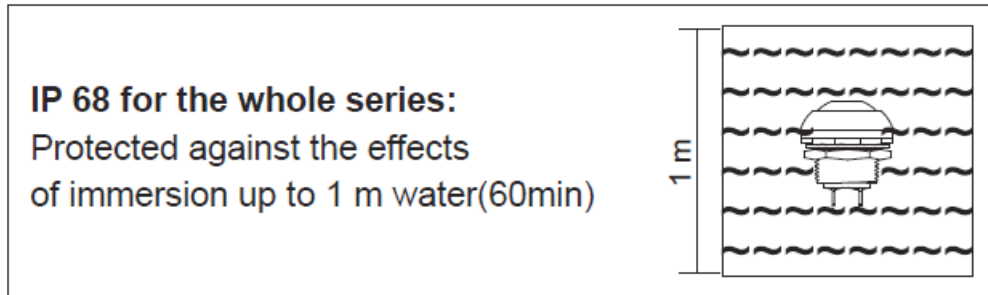
TORQUE : 0.5 Nm max.applied to nut

DEGREE OF PROTECTION: IP68

MANUAL SOLDERING: Use soldering iron of 30 watts, controlled at 350°C approximately 5 seconds

while applying solder.

WAVE SOLDERING: Recommended Soldering Temperature: $260 \pm 5^{\circ}\text{C}$ ※Ambient temperature of the soldered Surface of PC board. 110°C Max. Duration of Solder Immersion: Max 5 sec.(PCB is 1.6mm in thickness)



RS Part no.

PFS6B202MM1CAS05L00	3001758701	PFS6B202MM1CAS05L01	3001758698
PFS6B202MM2CAS05L00	3001758711	PFS6B202MM1CAS05L03	3001758697
PFS6B202MM3CAS05L00	3001758715	PFS6B202MM1CAS05L05	3001758694
PFS6B202MM4CAS05L00	3001758786	PFS6B202MM1CAS05L06	3001758692
PFS6B203MM1CAS05L00	3001758784	PFS6B202MM1CAS05L07	3001758762
PFS6B203MM2CAS05L00	3001758773	PFS6B203MM1CAS05L01	3001758782
PFS6B203MM3CAS05L00	3001758771	PFS6B203MM1CAS05L03	3001758781
PFS6B203MM4CAS05L00	3001758768	PFS6B203MM1CAS05L05	3001758779
PFS6B2A2SM1CAS05L00	3001758689	PFS6B203MM1CAS05L06	3001758777
PFS6B2A2SM2CAS05L00	3001758631	PFS6B203MM1CAS05L07	3001758775
PFS6B2A2SM3CAS05L00	3001758628	PFS6B205MM1CAS05L01	3001758739
PFS6B2A2SM4CAS05L00	3001758627	PFS6B205MM1CAS05L03	3001758764
PFS6B2A3SM1CAS05L00	3001758625	PFS6B205MM1CAS05L05	3001758788
PFS6B2A3SM2CAS05L00	3001758624	PFS6B205MM1CAS05L06	3001758760
PFS6B2A3SM3CAS05L00	3001758623	PFS6B205MM1CAS05L07	3001758758
PFS6B2A3SM4CAS05L00	3001758620	PFS6B206MM1CAS05L01	3001758757

PFS6B2G2SM1CAS05L00	3001758619	PFS6B206MM1CAS05L03	3001758754
PFS6B2G2SM2CAS05L00	3001758617	PFS6B206MM1CAS05L05	3001758753
PFS6B2G2SM3CAS05L00	3001758595	PFS6B206MM1CAS05L06	3001758749
PFS6B2G2SM4CAS05L00	3001758614	PFS6B206MM1CAS05L07	3001758748
PFS6B2G3SM1CAS05L00	3001758634	PFS6B207MM1CAS05L01	3001758746
PFS6B2G3SM2CAS05L00	3001758611	PFS6B207MM1CAS05L03	3001758743
PFS6B2G3SM3CAS05L00	3001758608	PFS6B207MM1CAS05L05	3001758742
PFS6B2G3SM4CAS05L00	3001758607	PFS6B207MM1CAS05L06	3001758664
PFS6B207MM1CAS05L07		3001758597	

Specifications:

1. Style :

This specification describes “Snap-Acting Pushbutton Switches”, mainly used as signal switch of electric devices, with the general requirements of mechanical and electrical characteristic.

Operating Temperature Range : -30 °C ~+85°C.

2. Current Range :

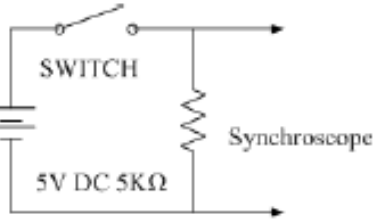
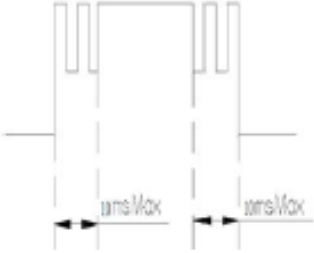
2.1 Silver Plating Standard :

Plating		Rating
C=Gold over silver	Fixed Terminal : Copper alloy with silver plated over gold plate. Movable contact : Copper alloy with silver plated over gold plate.	400mA @32VAC Max. 125mA @125VAC Max. 200mA @50VDC Max.

3. Type of Actuation : Snap-Acting Pushbutton Switches.

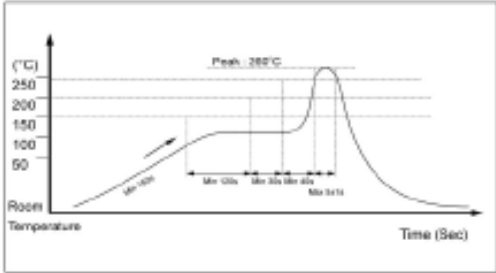
4. Test Sequence :

ELECTRIC PERFORMANCE	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
	1	Visual Examination	By Visual Examination check without and out pressure & testing.	There shall be no defects that affect the serviceability of the product.
	2	Contact Resistance	To be measured between the two terminals associated with each switch pole.	50mΩ Max.
	3	Insulation Resistance	Measurements shall be made following application of 500 V/DC 100mA potential across terminals and cover for 1 minute.	1GΩ min/500V.
	4	Dielectric Withstanding Voltage	1500 VAC(50Hz or 60Hz) Between the two terminals contacts for 1 minute.	There shall be no breakdown or flashover.

ELECTRIC PERFORMANCE	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
MECHANICAL PERFORMANCE	5	Bounce	3 to 4 operations at a rate of 1 cycle per second. 	10 m seconds max. 
	6	Actuation Force	MODEL-1305N MECHANICAL TEST 500gram、1000gram、2000gram. OFF TO ON Total Travel.	①At for test the force. Force : 3N~6N. ②Total Travel : 1.5mm ③Operating Position : 1.10mm±0.20mm
7	7	Torque	Applied to nut.	About 0.5 Nm Max.
OPERATING LIFE	8	Operating Life	Measurements shall be made following the test forth below : ①Plastic Material : 200mA,50VDC resistive load-gold over silver plated. ②Electronics Life Test : 500,000 cycles. ③Rate of Operation: 6-8 operation cycles per minute. ④Mechanical Life Test : 1,000,000cycles.	①Electronics Life Test : As shown in item 3~4. ②Mechanical Life Test : As shown in item 2~4.

ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
9	Resistance Low Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 hour before the measurements are made : ①Temperature : $-30\pm 3^{\circ}\text{C}$. ②Time : 96 hours.	As shown in item 2~4.
10	Resistance High Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before the measurements are made : ①Temperature : $85\pm 3^{\circ}\text{C}$. ②Time : 96 hours.	As shown in item 2~4.
11	Resistance Humidity	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before the measurements are made : ①Temperature : $40\pm 2^{\circ}\text{C}$. ②Relative Humidity : 90~95%. ③Time : 96 hours.	①Contact Resistance : $50\text{m}\Omega$ Max. ②Insulation Resistance : $1\text{G}\Omega$ min.
12	The Salt Testing	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before the measurements are made : ①Temperature : $35\pm 2^{\circ}\text{C}$. ②The ratio of salt-water : 5%. ③The spray amount of salt-water : 1~2 ml/h. ④Time : 48 hours.	The testing standard based on bubble, crack, and magnifying glass with gauge.

HUMIDITY RESISTANCE

HUMIDITY RESISTANCE	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
	13	HSF	Refer RoHS Standard : The electronic electrical machinery product limits with six big chemical materials.	Cd : 100ppm Pb : 1000ppm Hg : 1000ppm Cr6+ : 1000ppm PBB 、 PBDE : 1000ppm
SOLDER HEAT RESISTANCE	14	Test of IP 68	Protected against the effects of continuous immersion in water at a depth 1 m /60 minutes.	IP68 According to EN 60529 : 1991 + A1 : 2000 IEC 60529 : 2001
	15	Wave Soldering	<p> ■ Wave Soldering : ① Soldering Temperature: $260 \pm 5^{\circ}\text{C}$. ② Duration of Solder Immersion: 5 ± 1 seconds. </p> <p>Temperature Profile</p>  <p> ③ PCB is 1.6mm in thickness. ■ Ambient temperature of the soldered Surface of PC board. 110°C Max. </p>	<p> ① Shall be free from pronounced backlash and falling-off or breakage terminals. </p> <p> ② As shown in item 2~4. </p>

SOLDER HEAT RESISTANCE	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
	16	Manual Soldering	<p>■ Manual Soldering :</p> <p>① Soldering Temperature : 350°C Max.</p> <p>② Duration of Solder Heated : 5 seconds Max.</p> <p>■ Precautions in Handling</p> <p>① Care should be exercised so that flux from the upper part of the printed circuit board does not adhere to the switch.</p> <p>② Except for washable type do not wash the switch.</p> <p>③ Please make sure that there is no flux rose over the surface of the PCB.</p>	<p>① Shall be free from pronounced backlash and falling-off or breakage terminals.</p> <p>② As shown in item 2~4.</p>

5. With LED ELECTRO-OPTICAL DATA:

No.	Emission Color	Part No:	VF(v) TYP.	VF(v) MAX	IF(mA) TYP.
L01	超白光 Super White	FLG-PA11	3.1	3.6	20mA
L03	超紅光 Super Red	FLG-PA13	2.0	2.5	20mA
L05	超黃光 Super Yellow	FLG-PA15	2.0	2.5	20mA
L06	超綠光 Super Green	FLG-PA16	2.0	2.5	20mA
L07	超藍光 Super Blue	FLG-PA17	3.1	3.7	20mA