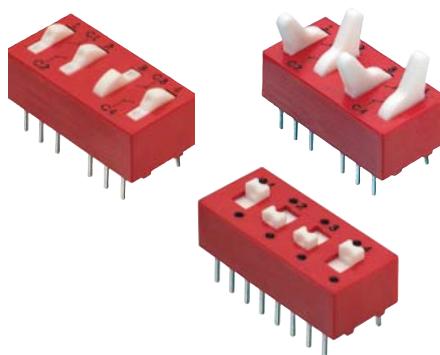
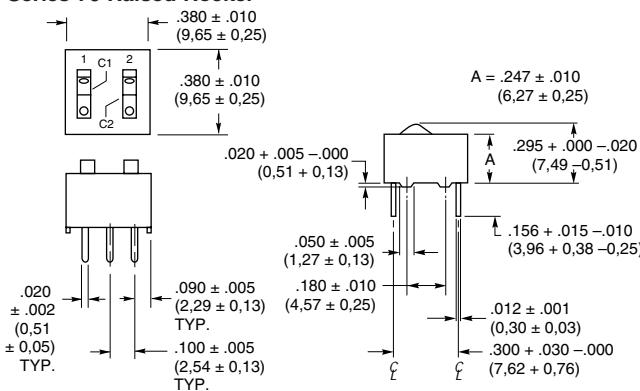
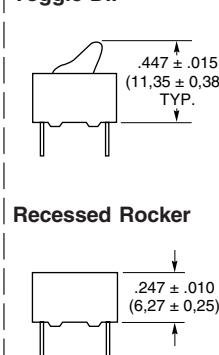
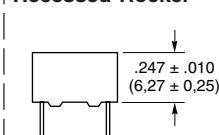
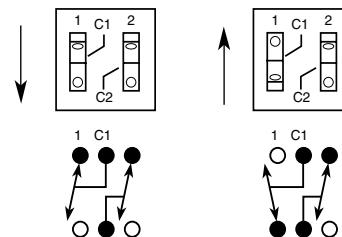
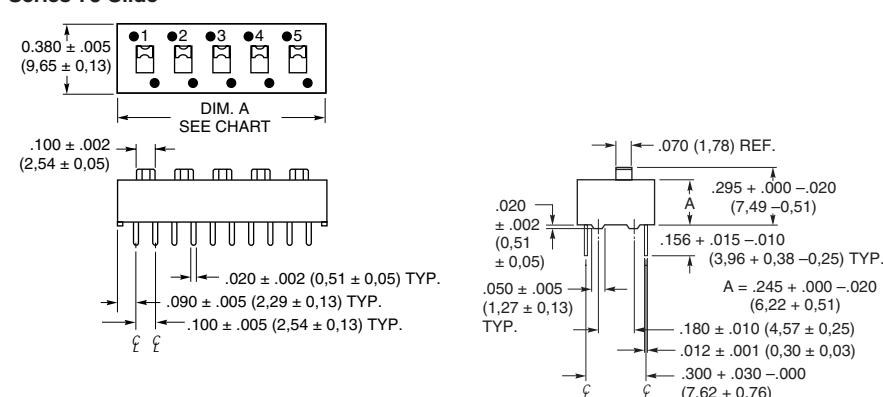
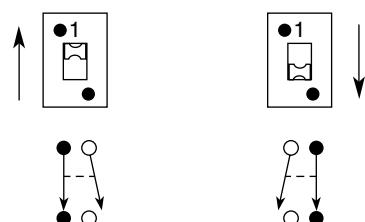


**SERIES 76 and 78****SPDT****FEATURES**

- Raised and Recessed Rocker, and Toggle Actuated Styles
- SPDT with a Common Pole, or SPDT with 2 Isolated Circuits
- Spring and Ball Contact
- Top Tape Seal Option for Most Styles

**DIMENSIONS: Series 76** In inches (and millimeters)**Series 76 Raised Rocker****Toggle-DIP****Recessed Rocker****CIRCUITRY: Series 76****SPDT with Common True Form C Switching****DIMENSIONS: Series 78** In inches (and millimeters)**Series 78 Slide****CIRCUITRY: Series 78****SPDT, 2 Circuits (No Commons)**

Dot on cover indicates active terminal when slide is on that side of switch. Contact is made with terminal on opposite side.



To create common poles, tie together 2 adjoining terminals on 1 (either) side of switch.

ORDERING INFORMATION

Circuitry	Positions	Length Inches	Length Metric	No./ Tube	Raised Type*	Recessed Rockers*	Toggle- DIP*
SPDT Form C	2 3 4	0.380" 0.580" 0.780"	9.7mm 14.7mm 19.8mm	27 18 13	76SC02T 76SC03T 76SC04T	76RSC02T 76RSC03T 76RSC04T	76STC02T 76STC03T 76STC04T
SPDT 2 Circuits	1 2 3 4 5 6	0.280" 0.480" 0.680" 0.880" 1.080" 1.280"	7.1mm 12.2mm 17.3mm 22.4mm 27.4mm 32.5mm	35 21 15 12 9 8	78J01T 78J02T 78J03T 78J04T 78J05T 78J06T	— — — — — —	— — — — — —

*To order top seal versions, add "S" before the "T" in the Grayhill part number.

Not available on Toggle-DIP.

Available from your local Grayhill Distributor. For prices and discounts, contact a local Sales Office, an authorized local Distributor or Grayhill.

SPECIFICATIONS: Standard Styles

Ratings	76	78	90B
Mechanical Life: Operations per switch position	2,000	2,000	2,000
Make-and-break Current Rating: Operations per switch position at these resistive loads			
1 mA, 5 Vdc; 50 mA, 30 Vdc; or 150 mA, 30 Vdc:	2,000	2,000	—
10 mA, 30 Vdc; or 10 mA, 50 mVdc:	—	—	2,000
10 mA, 50 mVdc; or 25 mA, 24 Vdc; or 100 mA, 6 Vdc:	—	—	2,000
Contact Resistance: Initially:	$\leq 30 \text{ m}\Omega$	$\leq 30 \text{ m}\Omega$	$\leq 20 \text{ m}\Omega$
After life, at 10 mA, 50 mVdc, open circuit:	$\leq 100 \text{ m}\Omega$	$\leq 100 \text{ m}\Omega$	$\leq 100 \text{ m}\Omega$
Insulation Resistance:			
Minimum, at 100 Vdc between adjacent closed contacts and also across open switch contacts			
Initially (Mohms):	5,000	5,000	5,000
After life (Mohms):	1,000	1,000	1,000
Dielectric Strength: Minimum voltage (AC, RMS) measured between adjacent closed contacts and also across open switch contacts.			
Initially:	750 V	750 V	500 V
After life:	500 V	500 V	500 V
Current Carry Rating: Maximum rise of 20°C	5 A	4 A	3 A
Switch Capacitance: At 1 megahertz	2 pF	2 pF	2 pF
Operating Temperature Range:	-40°C to + 85°C	-40°C to + 85°C	-40°C to + 85°C
Storage Temperature Range:	-55°C to + 85°C	-55°C to + 85°C	-55°C to + 85°C

Mechanical Ratings

Vibration Resistance: Per Method 204, Test Condition B, 1 mS opening (10 mS allowed)

Mechanical Shock: Per Method 213, Test Condition A. 1 mS opening (10 mS allowed)

Thermal Shock Resistance: Per specification; no failures; passes contact resistance.

Terminal Strength: Per specification

Thermal Aging: 1,000 hours at 85°C; no failures.

Environmental Ratings

Meets all requirements of MIL- S-83504.**

Where Grayhill performance is superior, the MIL spec is listed in parentheses.

Moisture Resistance: Per MIL-STD-202, Method 106.

Soldering Information

Series 90 MIDIP and Series 76 recessed rocker (76RSB style) sealed switches have been tested to EIA Standard RS-448-2. Similar performance can be expected from other sealed Series 76 and 78 DIP switches.

Solderability: Per MIL-STD-202, Method 208

Resistance to Soldering Heat: 76RSB: Passes EIA Standard using two, four, and six second soldering time. 90: Per MIL-S-83504, six second test.

Fluxing: Per EIA RS-448-2 with flux touching switch body.

Cleaning: 76, 78 and 90 series tape sealed products: Passes immersion test using water/detergent. Acceptable solutions include 1-1-1 trichlorethane, freon, (TF, TE, or TMS), isopropyl alcohol, detergent (140°F maximum). Terpene acceptable for Series 90 only. Solutions which are not recommended include acetone, methylene chloride, freon TMC.

Materials and Finishes

Shorting Member (Ball): Brass, gold-plated over nickel barrier.

Base Contacts: Copper alloy, gold-plated over nickel barrier.

Terminals: Copper alloy, matte tin plated over nickel barrier.

Non-Conductive Parts: Thermoplastic (UL94V-O)

Potting Material: Epoxy, 76,78 only.

Protective Cover: 76,78, only-Polycarbonate.

Tape Seal:

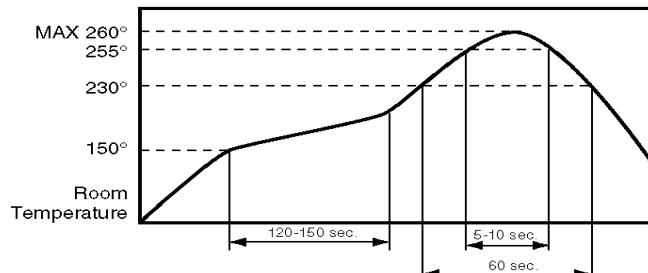
76, 78: Polyester film

90: Polyimide film

Tape Seal Integrity: Passes gross leak test using 125°C flourinert for 20 seconds minimum. Reference MIL-STD-202, Method 112.

Recommended Soldering Conditions:

REFLOW TEMPERATURE PROFILE:



WAVE SOLDERING: 260°C maximum solder temperature for 5 seconds max.

** Note: 100% matte tin terminal plating does not meet MIL-S-83504 for lead content.