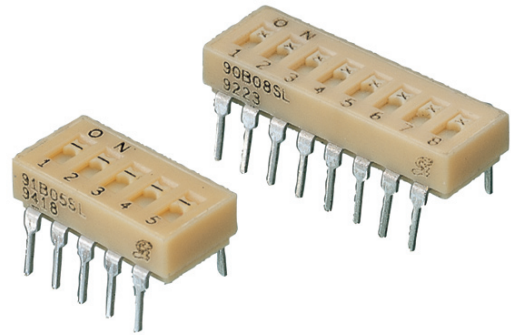


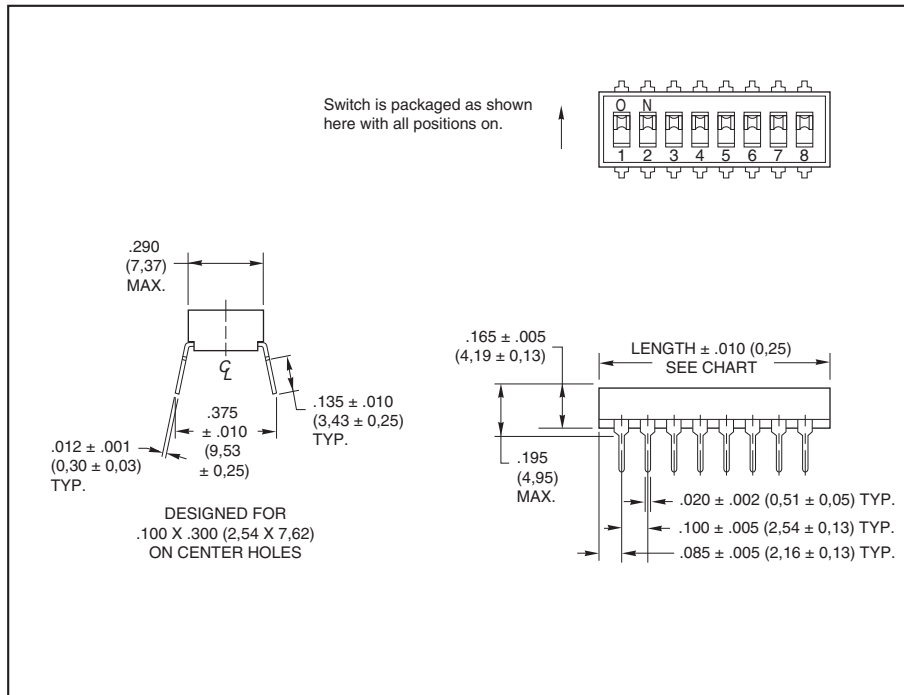
SERIES 90B AND 90GB Machine Insertable MIDIP

FEATURES

- Tested for TO-116 Equipment
- Up to 10 Positions
- High Pressure, Reliable Contacts
- Molded (Sealed) Base and Optional Top Seal
- RoHS Compliant

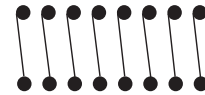


DIMENSIONS In inches (and millimeters)

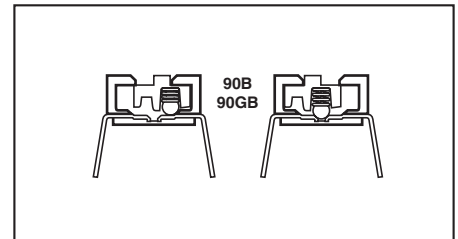


CIRCUITRY

As viewed from the top of the switch in the positions shown in the drawing.



CONTACT SYSTEM



ORDERING INFORMATION: Tube Packaging (Each tube is 19.5 inches long)

No. of Positions	Length Inches	Length Metric	Number Per Tube	Part Number	
2	.270"	6,9 mm	60	90B02ST	90GB02ST
3	.370"	9,4 mm	47	90B03ST	90GB03ST
4	.470"	11,9 mm	37	90B04ST	90GB04ST
5	.570"	14,5 mm	31	90B05ST	90GB05ST
6	.670"	17,0 mm	26	90B06ST	90GB06ST
7	.770"	19,6 mm	23	90B07ST	90GB07ST
8	.870"	22,1 mm	20	90B08ST	90GB08ST
9	.970"	24,6 mm	18	90B09ST	90GB09ST
10	1.070"	27,2 mm	16	90B10ST	90GB10ST

ADDITIONAL INFORMATION

Please visit our website for accessories.

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

*The "S" in the part number denotes top tape seal versions. To order without top tape seal, leave the "S" off the part number when ordering.

**Style "GB" contains 30μ gold plated terminals.

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:	≤ 30 mΩ	≤ 30 mΩ	≤ 20 mΩ
After life, at 10 mA, 50 mVdc, open circuit:	≤ 100 mΩ	≤ 100 mΩ	≤ 100 mΩ
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

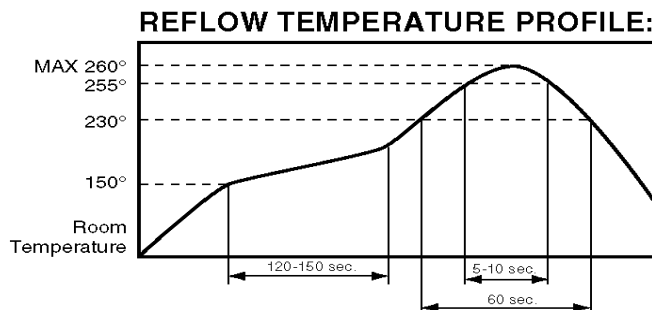
90: Polyimide film

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 Soldering Profile:

(260°C Peak Temperature)



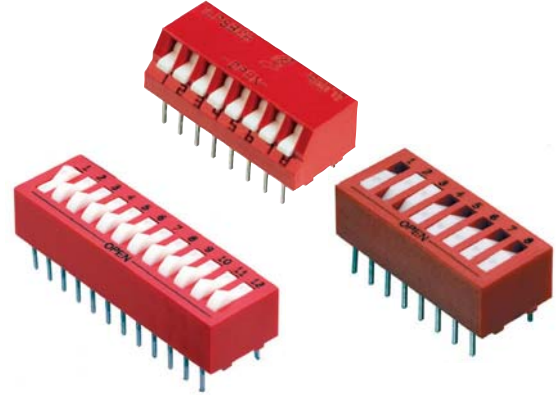
WAVE SOLDERING: 260°C maximum solder temperature for 5 seconds max.

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

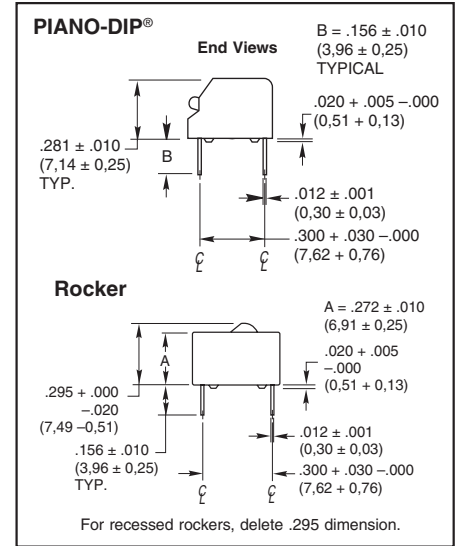
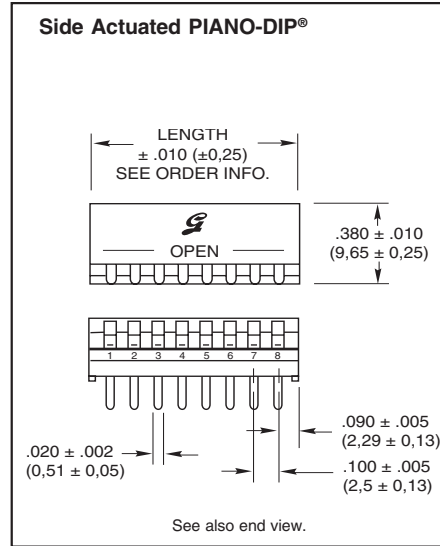
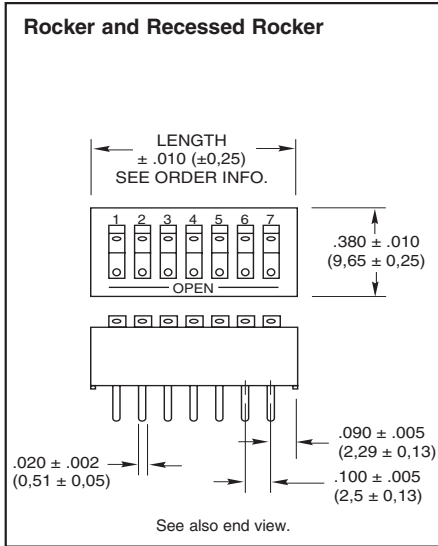
SERIES 76
SPST Rocker

FEATURES

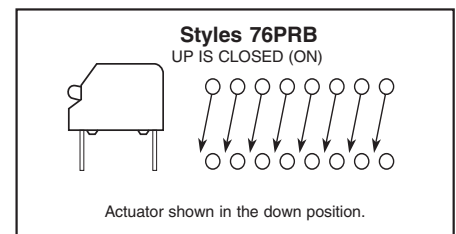
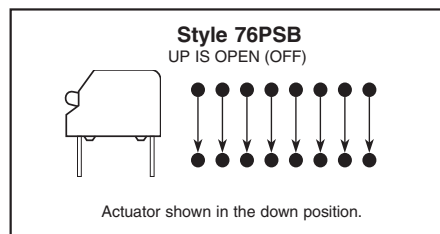
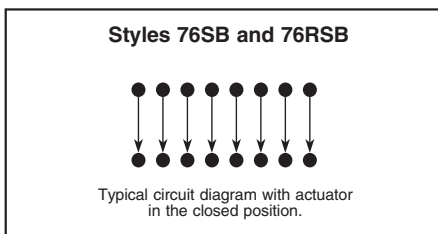
- Raised and Recessed, Rocker and PIANO-DIP® Styles
- Sealed Base Standard
- Spring and Ball Contact
- Top Tape Seal Option



DIMENSIONS In inches (and millimeters)



CIRCUITRY



ORDERING INFORMATION

Series

Switch Style: SB = Raised Rocker
RSB = Recessed Rocker
PSB = Piano-DIP (Up is Off)
PRB = Piano-DIP (Up is On)

76RSB04ST

T = RoHS compliant
Sealed*: S = Tape Seal
Number of Positions: 02 through 10, 12

No. of Pos.	Length (Inches)	Length (Metric)	No./Tube
2	0.280"	7,1 mm	35
3	0.380"	9,7 mm	27
4	0.480"	12,2 mm	21
5	0.580"	14,7 mm	18
6	0.680"	17,3 mm	15
7	0.780"	19,8 mm	13
8	0.880"	22,4 mm	12
9	0.980"	24,9 mm	10
10	1.080"	27,4 mm	9
12	1.280"	32,5 mm	8

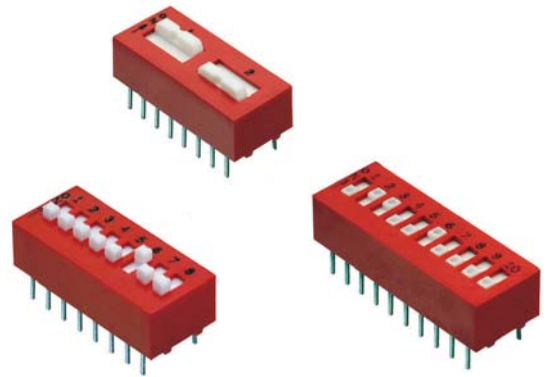
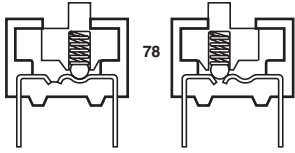
*A top tape seal is required for switches that are machine soldered or heavily cleaned after hand soldering. To order top seal versions, add "S" to the Grayhill part number.

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

SERIES 78 SPST To 4PST Slide

FEATURES

- Raised and Recessed Slides
- SPST, 2PST, 3PST, 4PST
- Sealed Base Standard
- Spring and Ball Contact
- Top Tape Seal Option



DIMENSIONS In inches (and millimeters)

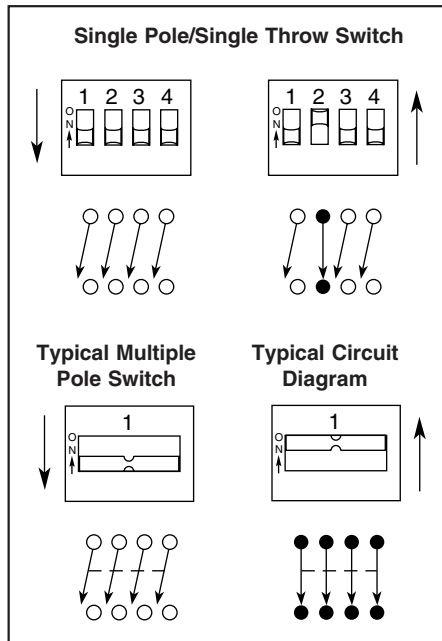
Single Pole/Single Throw Switch in Raised and Recessed Slides

Note: Recessed slides have a dimple for tool actuation. For recessed slides, the .295 dimension does not apply.

Typical Multiple Pole Switch with Raised Slides

(Switch shown here is 78H02, 4PST)

CIRCUITRY



ORDERING INFORMATION

Circuitry	No. of Positions	Length Inches	Length Metric	No./Tube	Raised Slides*	Recessed Slides*	
SPST	2	0.280"	7,1mm	35	78B02T	78RB02T	
	3	0.380"	9,7mm	27	78B03T	78RB03T	
	4	0.480"	12,2mm	21	78B04T	78RB04T	
	5	0.580"	14,7mm	18	78B05T	78RB05T	
	6	0.680"	17,3mm	15	78B06T	78RB06T	
	7	0.780"	19,8mm	13	78B07T	78RB07T	
	8	0.880"	22,4mm	12	78B08T	78RB08T	
	9	0.980"	24,9mm	10	78B09T	78RB09T	
	10	1.080"	27,4mm	9	78B10T	78RB10T	
	12	1.280"	32,5mm	8	78B12T	78RB12T	
	2PST	1	0.280"	7,1mm	35	78F01T	Recessed Slides Not Available
		2	0.480"	12,2mm	21	78F02T	
3		0.680"	17,3mm	15	78F03T		
4		0.880"	22,4mm	12	78F04T		
5		1.080"	27,4mm	9	78F05T		
6		1.280"	32,5mm	8	78F06T		
3PST	1	0.380"	9,7mm	27	78G01T	Recessed Slides Not Available	
	2	0.680"	17,3mm	15	78G02T		
	3	0.980"	24,9mm	10	78G03T		
4PST	1	0.480"	12,2mm	21	78H01T	Recessed Slides Not Available	
	2	0.880"	22,4mm	12	78H02T		

For switches with 5, 6, 7, 8, or 10PST circuitry, contact Grayhill.

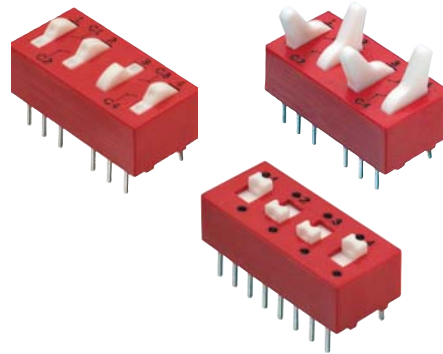
*A top tape seal is required for switches that are machine soldered or heavily cleaned after hand soldering. To order top seal versions, add "S" before the "T" in the Grayhill part number.

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

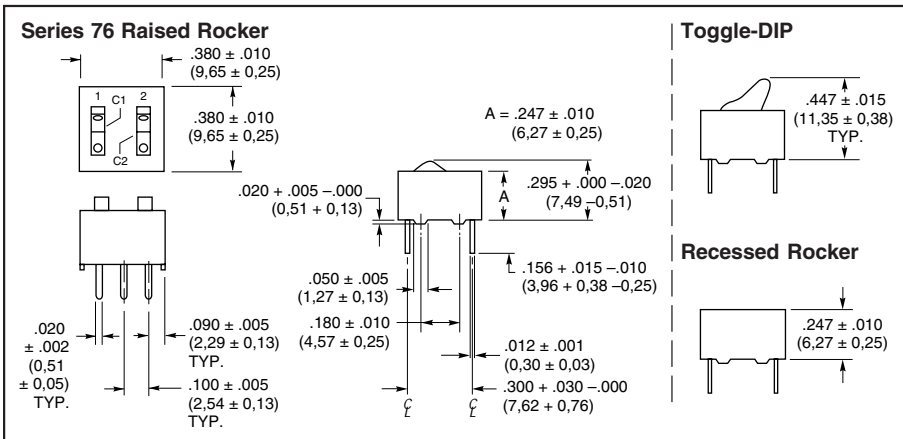
SERIES 76 and 78
SPDT

FEATURES

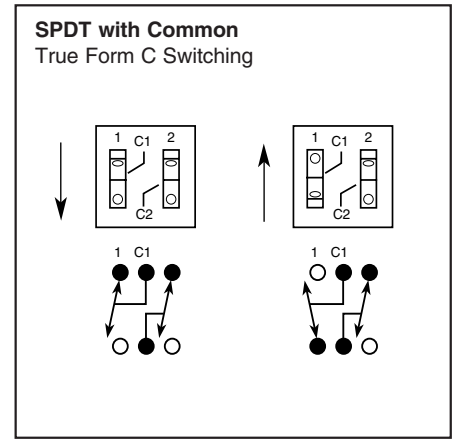
- Raised and Recessed Rocker, and Toggle Actuated Styles
- SPDT with a Common Pole, or SPDT with 2 Isolated Circuits
- Spring and Ball Contact
- Top Tape Seal Option for Most Styles



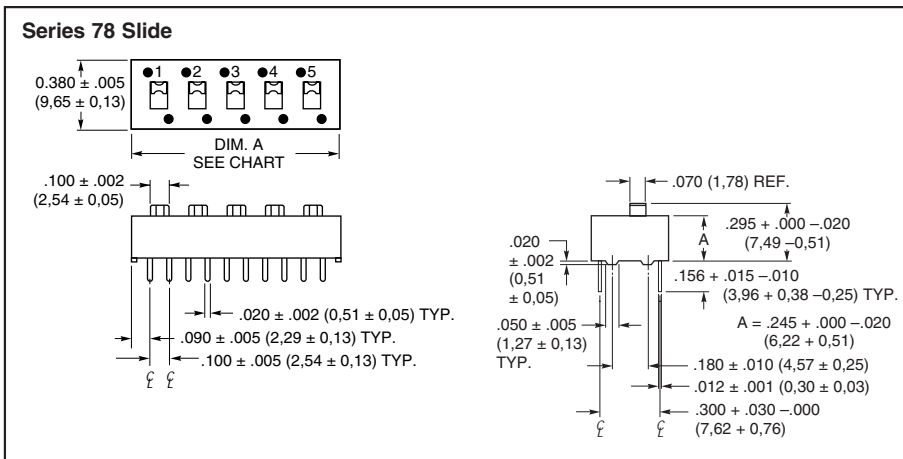
DIMENSIONS: Series 76 In inches (and millimeters)



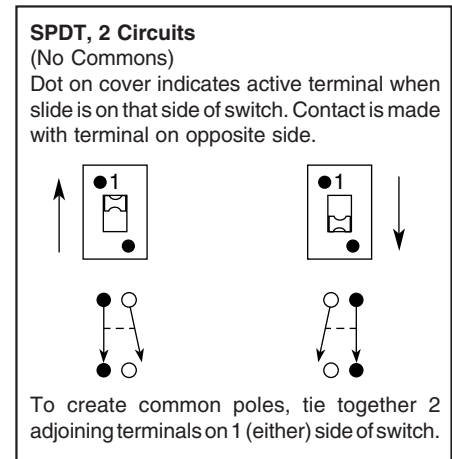
CIRCUITRY: Series 76



DIMENSIONS: Series 78 In inches (and millimeters)



CIRCUITRY: Series 78



ORDERING INFORMATION

Circuitry	Positions	Length Inches	Length Metric	No./ Tube	Raised Type*	Recessed Rockers*	Toggle-DIP*
SPDT Form C	2	0.380"	9,7mm	27	76SC02T	76RSC02T	76STC02T
	3	0.580"	14,7mm	18	76SC03T	76RSC03T	76STC03T
	4	0.780"	19,8mm	13	76SC04T	76RSC04T	76STC04T
SPDT 2 Circuits	1	0.280"	7,1mm	35	78J01T	—	—
	2	0.480"	12,2mm	21	78J02T	—	—
	3	0.680"	17,3mm	15	78J03T	—	—
	4	0.880"	22,4mm	12	78J04T	—	—
	5	1.080"	27,4mm	9	78J05T	—	—
	6	1.280"	32,5mm	8	78J06T	—	—

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

Not available on Toggle-DIP.

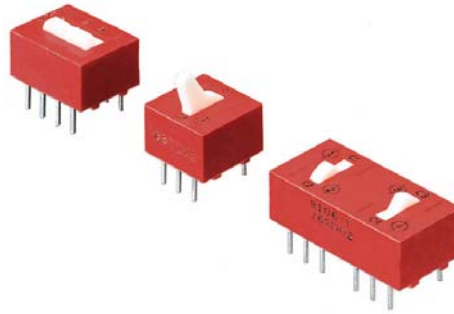
Available from your local Grayhill Distributor. For prices and discounts, contact a local Sales Office, an authorized local Distributor or Grayhill.

SERIES 76 and 78

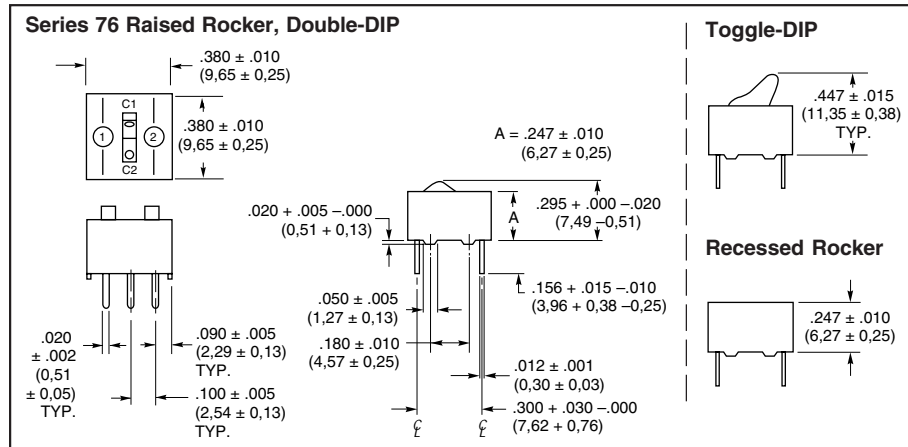
DPDT

FEATURES

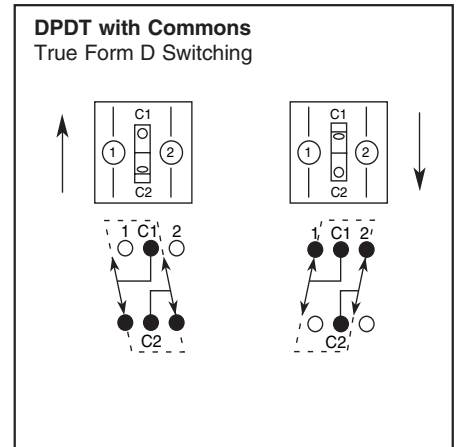
- Raised and Recessed Rocker, and Toggle Actuated Styles
- DPDT with Common Poles, or DPDT with 4 Isolated Circuits
- Spring and Ball Contact
- Top Tape Seal Option for Most Styles



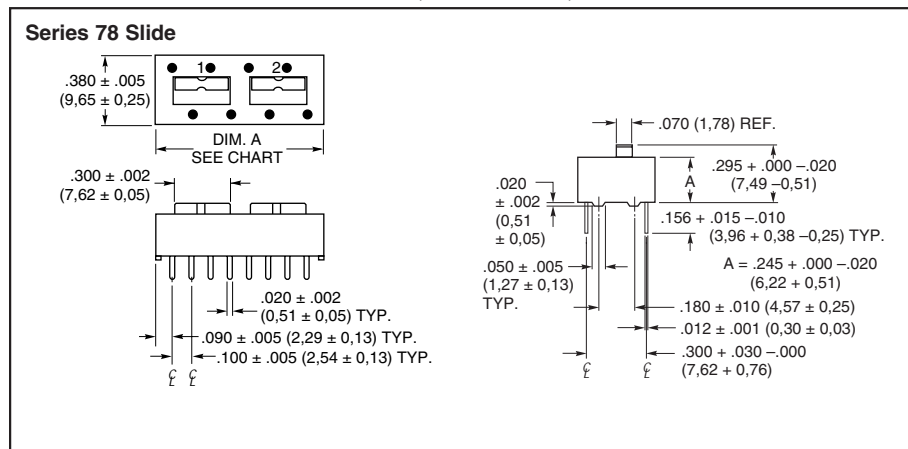
DIMENSIONS: Series 76 In inches (and millimeters)



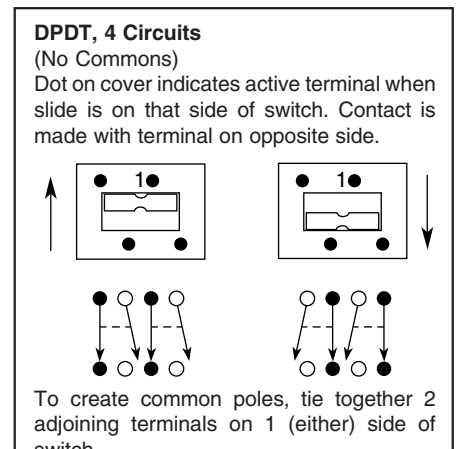
CIRCUITRY: Series 76



DIMENSIONS: Series 78 In inches (and millimeters)



CIRCUITRY: Series 78



ORDERING INFORMATION

Circuitry	No./ Positions	Length Inches	Length Metric	No./ Tube	Raised Type*	Recessed Rockers*	Toggle-DIP*
DPDT Form D	1	0.380"	9,7mm	27	76SD01T	76RSD01T	76STD01T
	2	0.780"	19,8mm	13	76SD02T	76RSD02T	76STD02T
DPDT 4 Circ.	1	0.480"	12,2mm	21	78K01T	—	—
	2	0.880"	22,4mm	12	78K02T	—	—

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

A top tape seal is required for switches that are machine soldered or heavily cleaned after hand soldering. To order top seal versions, add "S" before the "T" in the Grayhill part number. Not available on Toggle-DIP.

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:	≤ 30 mΩ	≤ 30 mΩ	≤ 20 mΩ
After life, at 10 mA, 50 mVdc, open circuit:	≤ 100 mΩ	≤ 100 mΩ	≤ 100 mΩ
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

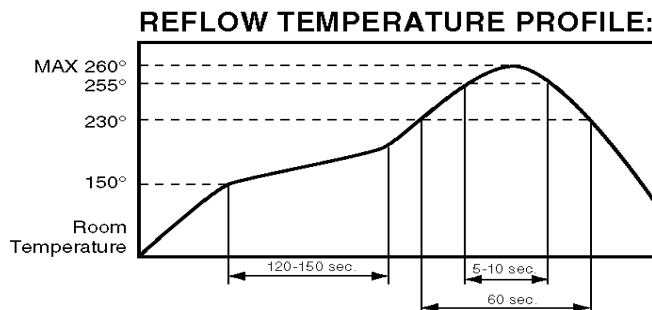
90: Polyimide film

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 Soldering Profile:

(260°C Peak Temperature)



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

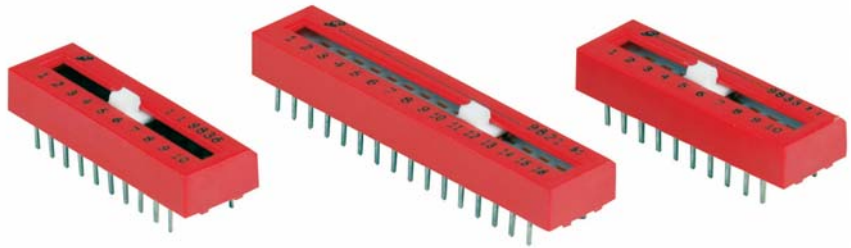
** Note: 100% matte tin terminal plating does not meet MIL-S-83504 for lead content.

SERIES 79A

Linear Action Circuit Selector

SERIES 79C

Linear Action Tap



FEATURES

- Single-Setting Programming
- Isolated or Bussed Circuits
- 10 or 16 Positions
- 125 mA, 6 Vdc, 2000 Cycles

Circuit Selector

Isolated Circuits in 10 and 16 Positions

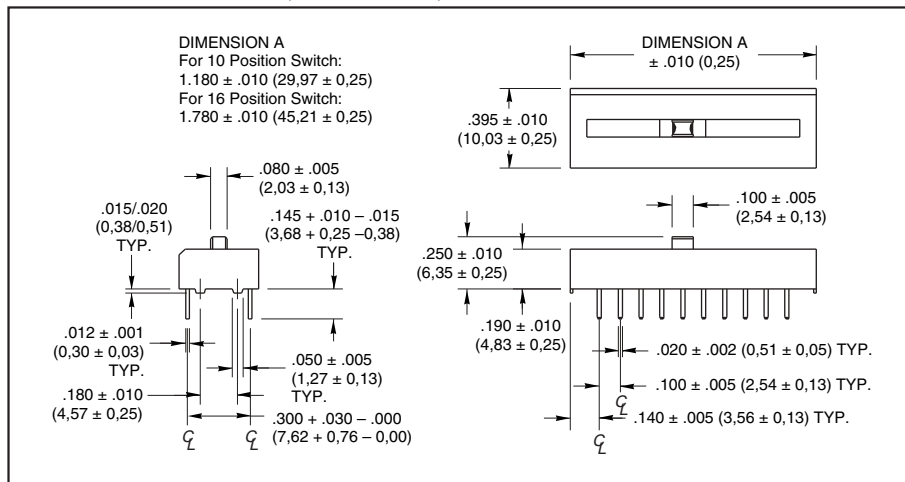
Each position is a single isolated circuit, which connects the two terminals across the switch package. The movable contact is non-shorting.

Tap Switch

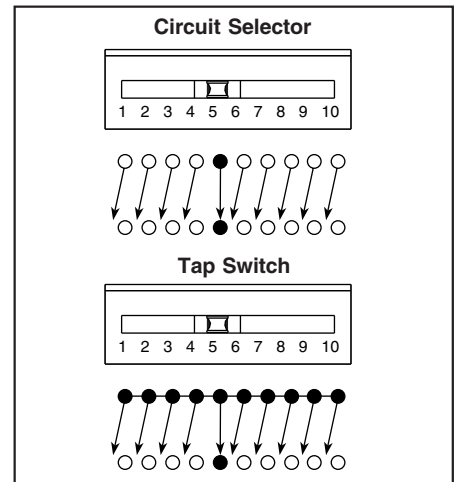
SP/10 Positions, and SP/16 Positions

All contacts on one side of the switch are internally bussed for a common pole. Any terminal on that side may be used as a common, the others may be clipped. The movable contact is non-shorting.

DIMENSIONS In inches (and millimeters)



CIRCUITRY



SPECIFICATIONS

Electrical Ratings

Make-and-break Current Rating: 2,000 cycles at 10 mA, 50 mVdc; 2,000 cycles at 125 mA, 6 Vdc; 2,000 cycles at 50 mA, 30 Vdc.

Contact Resistance: (measured at 10 mA, 50 mVdc) Coded Switches: 60 mohms maximum initially. Other Switches: 50 mohms maximum initially. After Life: 100 mohms maximum

Insulation Resistance (at 100 Vdc):

Between adjacent isolated contacts: Initial: 5,000 Mohms; 1,000 Mohms minimum after life. Across open contacts: Initial: 5,000 Mohms; 1,000 Mohms minimum after life.

Dielectric Strength: Between adjacent isolated contacts and also across open contacts. Initially: 750 Vac; 500 Vac after life

Contact Carry Rating: 2 Amps with a maximum contact temperature rise of 20°C

Mechanical Ratings

Mechanical Life: 4,000 cycles maximum. Note: a cycle is one complete operation, back and forth through all switch positions.

Vibration Resistance: 10 to 2,000 Hz at 15G or 0.060" double amplitude, per MIL-STD-202F per MIL-5-83504; Method 213, Condition A. No damage and no contact openings exceeding 10 mS (Method 204, Test Condition B).

Shock Resistance: 509, 11 mS, half sine; no damage and no openings exceeding 10 mS (Method 213, Test Condition A).

Environmental Rating

Operating Temperature Range: -40°C to +85°C

Storage Temperature Range: -55°C to +85°C

Moisture Resistance: 240 hours with temperature cycling and polarization, per MIL-STD-202F, Method 305

Materials and Finishes

Nonconductive Parts: Plastic UL94V-O

Shorting Arm: Phosphor bronze, gold plate over nickel plate

Base Contacts: Copper alloy, gold plate over nickel plate

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

Potting Material: Epoxy

Tape and Seal Packaging

Seal Strength: Per MIL-STD-202, Method 112. 30 seconds at 125° hot Fluorocarbon

Solderability: Per MIL-STD-202, Method 208.

Tape Seal: Polyester film

Available from your local Grayhill Distributor.

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

ORDERING INFORMATION

Number of Positions	Type of Circuit Code	Number per Tube	Part Number*
10	Circuit Selector	9	79A10T
10	Single Pole	9	79C10T
16	Circuit Selector	6	79A16T
16	Single Pole	6	79C16T

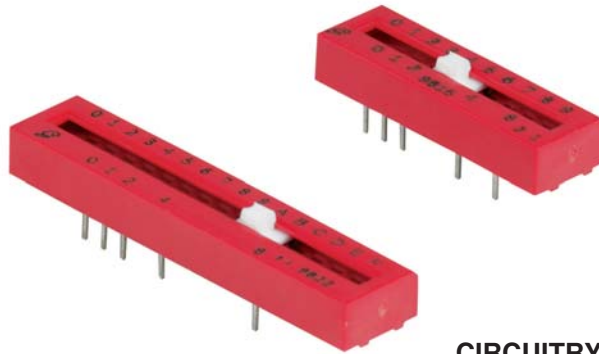
*A top tape seal is required for switches that are machine soldered or heavily cleaned after hand soldering. To order top seal versions, add "S" before the "T" in the Grayhill part number.

SERIES 79B

Linear Action, Coded Output

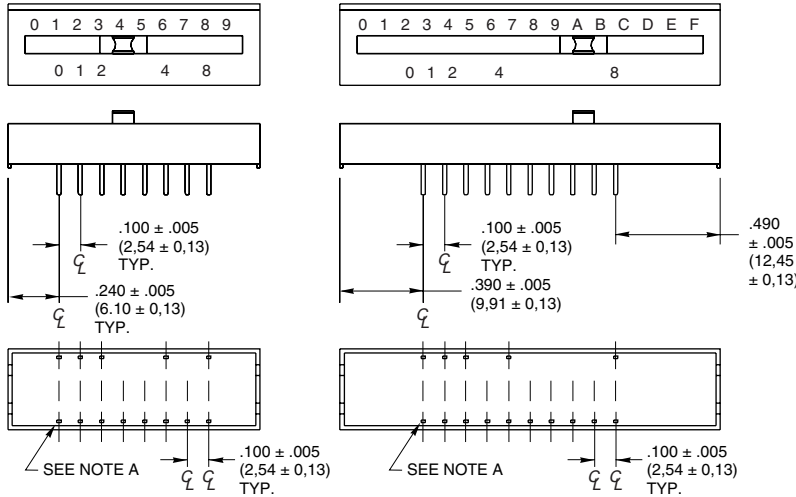
FEATURES

- Reliable Switching, Positive Detent
- Codes in BCD and Hexadecimal
- True Zero Output
- 10 or 16 Positions
- 2000 Cycle Life
- Up to 60,000 Detent Operations



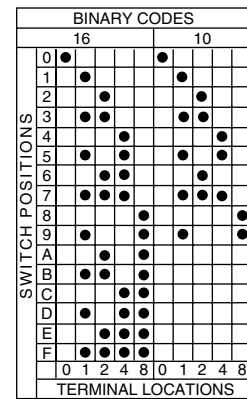
DIMENSIONS In inches (and millimeters)

All dimensions not shown here are the same as those on the facing page.



NOTE A: All terminals on this side of the switch are bussed internally. Any one of them may be used as the common terminal.

CIRCUITRY



Dot indicates contact made between contact and output terminal.

SPECIFICATIONS

Electrical Ratings

Make-and-break Current Rating: 2,000 cycles at 10 mA, 50 mVdc; 2,000 cycles at 125 mA, 6 Vdc; 2,000 cycles at 50 mA, 30 Vdc.

Contact Resistance: 100 mohms maximum after life, measured at 10 mA dc and 50 mV (open circuit). Initial values are 60 mohms maximum for coded switches, and 50 mohms for other linear action switches.

Insulation Resistance (at 100 Vdc):

Between adjacent isolated contacts: Initial: 5,000 Mohms minimum; After Life: 1,000 Mohms minimum

Across open contacts: Initial: 5,000 Mohms minimum; After Life: 1,000 Mohms minimum

Dielectric Strength: Between adjacent isolated contacts and across open contacts. Initial: 750 Vac; After Life: 500 Vac

Contact Carry Rating: 2 amps with a maximum

contact temperature rise of 20°C.

Mechanical Ratings

Mechanical Life: 4,000 cycles maximum. Note: a cycle is one complete operation, back and forth through all switch positions.

Vibration Resistance: 10 to 2,000 Hz at 15G or 0.060" double amplitude; no damage and no contact openings exceeding 10 mS (Method 204, Test Condition B).

Shock Resistance: 509, 11 mS, half sine; no damage and no openings exceeding 10 microseconds (Method 213, Test Condition A).

Environmental Ratings

Refer to MIL-STD-202F per MIL-S-83504

Operating Temperature Range: -40°C to +85°C

Storage Temperature Range: -55°C to +85°C

Moisture Resistance: 240 hours with temperature cycling and polarization, per MIL-STD-202F, Method 305

Materials and Finishes

Nonconductive Parts: Plastic UL94V-O

Shorting Arm: Phosphor bronze, gold plate over nickel plate

Base Contacts: Copper alloy, gold plate over nickel plate

Terminals: Copper alloy, matte tin plated over nickel barrier

Potting Material: Epoxy

Tape Seal and Packaging

Tape Seal: Polyester film

ORDERING INFORMATION

Number of Positions	Type of Circuit Code	Number per Tube	Part Number*
10	Binary Code Decimal	9	79B10T
16	Hexadecimal	6	79B16T

*A top tape seal is required for switches that are machine soldered or heavily cleaned after hand soldering. To order top seal versions, add "S" before the "T" in the Grayhill part number.

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

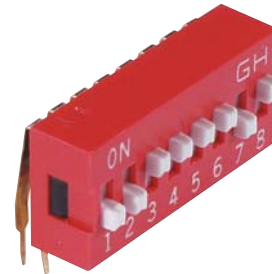
SERIES 78C
Right Angle Option

FEATURES

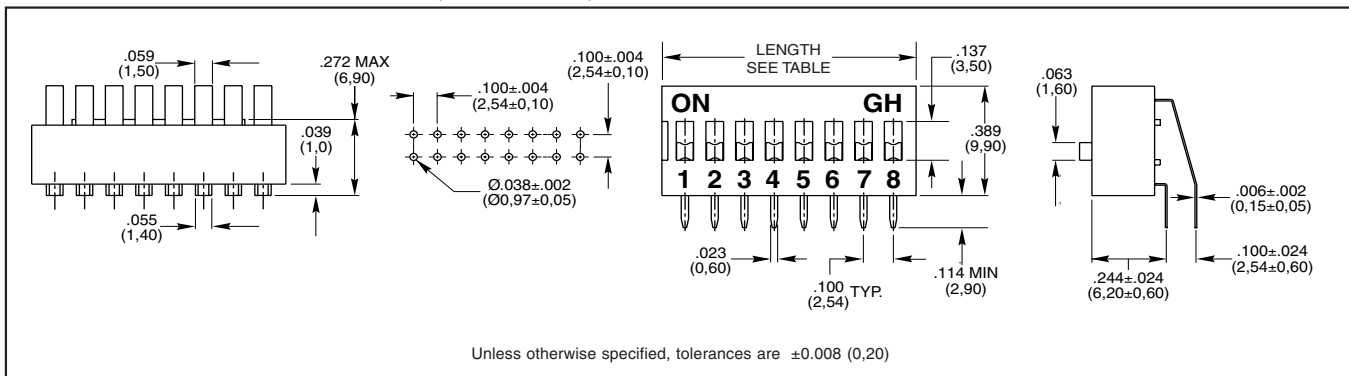
- Easy Access
- SPST Circuitry
- 2-10 and 12 positions available
- Sealed versions available

APPLICATIONS

Telecommunications, computers and peripherals, instruments and controls.



Series 78C DIMENSIONS In inches (and millimeters)



DIP Switches

SPECIFICATIONS

Mechanical

- Mechanical Life:** 2000 operations per switch.
- Operation Force:** 1000gf max.
- Stroke:** 2.0mm
- Operation Temp:** -20°C to 70°C
- Storage Temp:** -40°C to 85°C
- Vibration Test:** MIL-STD-202F METHOD 201A.
- Frequency: 10-55-10Hz/1 min.
- Directions: X,Y,Z, three mutually perpendicular directions.
- Time: 2 hours each direction.
- High reliability.
- Shock Test:** MIL-STD-202F METHOD 213 B. CONDITION A.
- Gravity: 50G (peak value), 11 msec.
- Direction and times: 6 sides and 3 Times in each direction.
- High reliability.

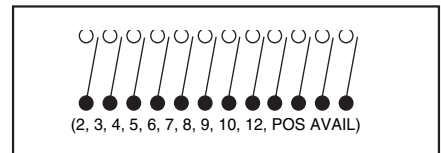
Electrical

- Electrical Life:** 2000 operations per switch
- 24VDC, 25mA.
- Non-Switching Rating:** 100mA, 50VDC.
- Switching rating:** 25mA, 24VDC.
- Contact Resistance:** 50mΩ max. at initial.
- Insulation Resistance:** (at 500VDC) 100mΩ min.
- Dielectric Strength:** 500VAC/1 minute.
- Capacitance:** 5pF max.
- Circuit: Single pole single throw.

Soldering and Cleaning Process

- For best results follow these recommendations:
- Keep switch contacts in "OFF" position for all operations.
- Wave Soldering:** Recommended solder temperature: 500°F (260°C) max 5 seconds.
- Hand Soldering:** Use a soldering iron of 30 Watts or less, controlled at 608°F (320°C) approximately 2 seconds while applying solder.
- Cleaning:** Tape sealed versions withstand cleaning processes.

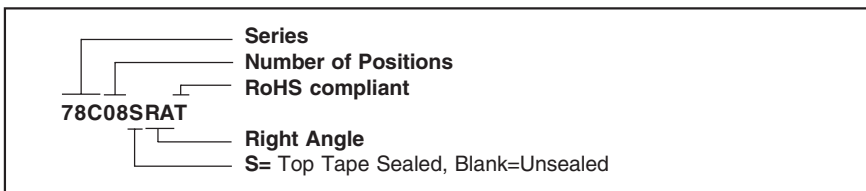
CIRCUITRY



Materials

- Base Contact:** Phosphor bronze with gold plating over nickel
- Terminals:** Brass with gold plating over nickel
- Nonconductive Parts:** Plastic UL94V-0
- Potting Material:** Epoxy
- Tape Seal:** Polyester film.

ORDERING INFORMATION



TABLE

Grayhill Part Number	Length Dimension inches (mm)	Packaging
78C02RAT	0.254(6,44)	73 pcs/tube
78C03RAT	0.354(8,98)	52 pcs/tube
78C04RAT	0.454(11,52)	40 pcs/tube
78C05RAT	0.554(14,06)	33 pcs/tube
78C06RAT	0.654(16,60)	28 pcs/tube
78C07RAT	0.754(19,14)	24 pcs/tube
78C08RAT	0.854(21,68)	21 pcs/tube
78C09RAT	0.954(24,22)	19 pcs/tube
78C10RAT	1.054(26,76)	17 pcs/tube
78C12RAT	1.254(31,84)	14 pcs/tube
78C02SRAT	0.254(6,44)	70 pcs/tube
78C03SRAT	0.354(8,98)	52 pcs/tube
78C04SRAT	0.454(11,52)	39 pcs/tube
78C05SRAT	0.554(14,06)	32 pcs/tube
78C06SRAT	0.654(16,60)	28 pcs/tube
78C07SRAT	0.754(19,14)	24 pcs/tube
78C08SRAT	0.854(21,68)	21 pcs/tube
78C09SRAT	0.954(24,22)	19 pcs/tube
78C10SRAT	1.054(26,76)	17 pcs/tube
78C12SRAT	1.254(31,84)	14 pcs/tube