



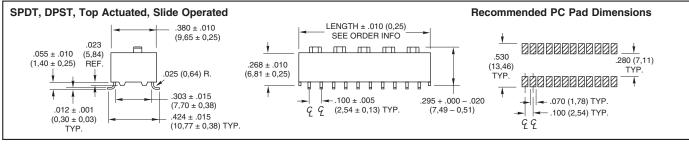
SERIES 78H SPDT and DPST



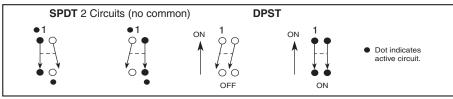
- Compatible with SMT Assembly Including Infrared Reflow and Vapor-Phase
- Reliable Spring and Ball Contact



DIMENSIONS In inches (and millimeters)



CIRCUITRY



SPECIFICATIONS

Electrical Ratings

Make-and-break Current Rating: 2,000 operations per switch position at 1 mA, 5 Vdc; 50 mA, 30 Vdc; or 150 mA, 30 Vdc

Contact Resistance: Initial: 30 mohms max. After Life: 100 mohms max. (10 mA at 50 Vdc, open circuit)

Insulation Resistance: Minimum, at 100 Vdc between adjacent closed contacts and also across open switch contacts. Initial: 2,000 Mohms; After Life: 1,000 Mohms

Dielectric Strength: Minimum voltage (AC, RMS) measured between adjacent closed contacts and also across open switch contacts. Initial: 750 volts; After Life: 500 volts

Current Carry Rating: 4 amps, maximum rise of 20°C

Switch Capacitance: 2 pF at 1megahertz

Mechanical Ratings

Mechanical Life: 2,000 operations per switch position

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)

Terminal Strength: Per specification

Thermal Aging: 1,000 hours at 85°C; no failures **Thermal Shock:** Per specification; no failures; passes contact resistance

Environmental Ratings

Meets all requirements of MIL- S-83504. Where Grayhill performance is superior, the MIL spec is listed in parentheses.

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

Storage Temperature Range: -55° C to $+85^{\circ}$ C Moisture Resistance: Per MIL-STD-202, Method 106

Soldering Information

Solderability: Per MIL-STD-202, Method 208 **Soldering Heat Resistance:** Per MIL-S-83504, six second test

Recommended Processing Temperature: 220°C-230°C (1 pass—260°C maximum)

Processing Position: Switch is to be processed with all actuators in the closed (on) position as shipped.

ORDERING INFORMATION: Tube Packaging

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	No. of Positions	Length (inches)	Length (metric)	Carrier Width Dim. A	Part N SPDT	umber* DPST	
	1 2 3 4 5	0.280" 0.480" 0.680" 0.880" 1.080"	7,1 mm 12,2 mm 17,3 mm 22,4 mm 27,4 mm	24 mm 24 mm 32 mm 44 mm 44 mm	78HJ01GWT 78HJ02GWT 78HJ03GWT 78HJ04GWT 78HJ05GWT	78HF01GWT 78HF02GWT 78HF03GWT 78HF04GWT 78HF05GWT	

* Insert "R" before the "T" in the Grayhill part number for tape and reel packaging (500 switches/reel). **Available from your local Grayhill Distributor.** For prices and discounts, contact a local Sales Office, an authorized local Distributor or Grayhill.

Materials and Finishes

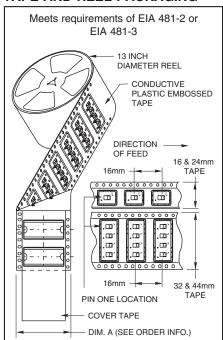
Shorting Member: Brass, gold-plated over nickel barrier.

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

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

Non-Conductive Parts: Cover is natural color thermoplastic, actuators are white thermoplastic (UL94V-O)

TAPE AND REEL PACKAGING



Each reel has a 15.750 inch (390 mm) minimum leader and a 6.30 inch (160 mm) minimum trailer.