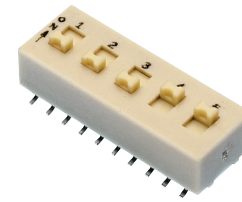


## SERIES 78H SPDT and DPST

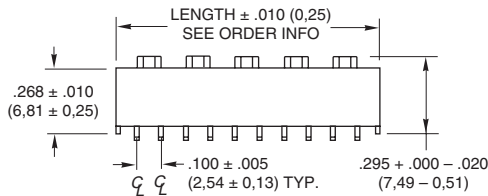
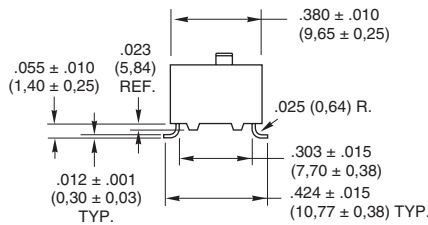
### FEATURES

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

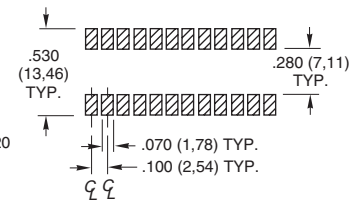


### DIMENSIONS In inches (and millimeters)

SPDT, DPST, Top Actuated, Slide Operated



Recommended PC Pad Dimensions

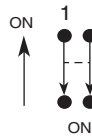


### CIRCUITRY

SPDT 2 Circuits (no common)



DPST



• Dot indicates active circuit.

with all actuators in the closed (on) position as shipped.

### 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)

### 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°C

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

#### Soldering Information

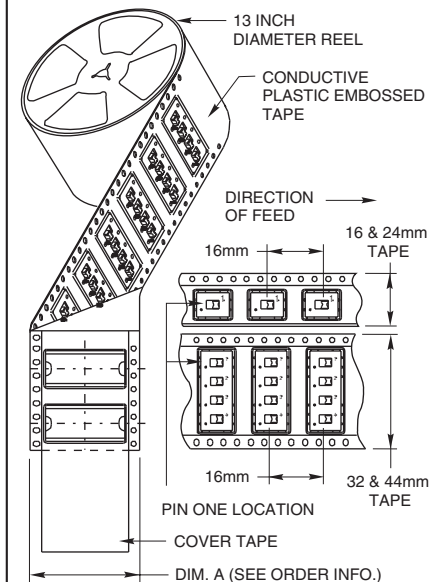
**Solderability:** Per MIL-STD-202, Method 208  
**Soldering Heat Resistance:** Per MIL-S-83504, six second test

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

**Processing Position:** Switch is to be processed

### TAPE AND REEL PACKAGING

Meets requirements of EIA 481-2 or EIA 481-3



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

### ORDERING INFORMATION: Tube Packaging

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

\* Insert "R" before the "T" in the Grayhill part number for tape and reel packaging (500 switches/reel).

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

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