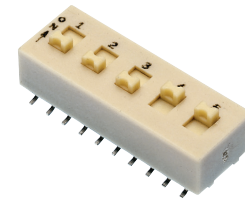


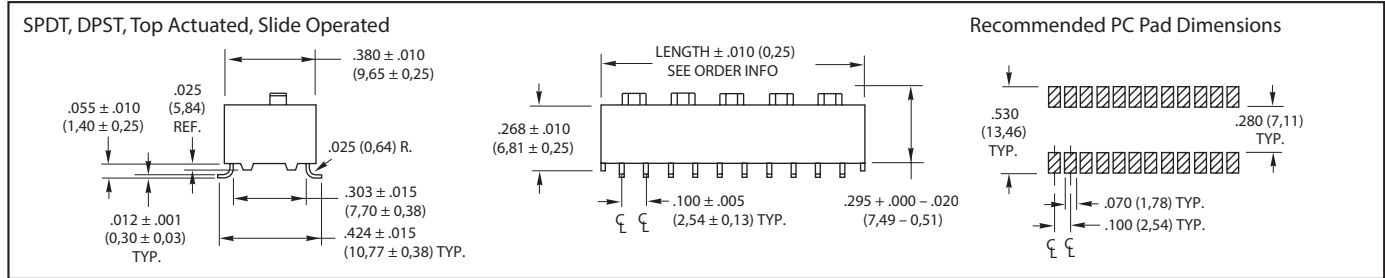
## SERIES 78H SPDT and DPST

### FEATURES

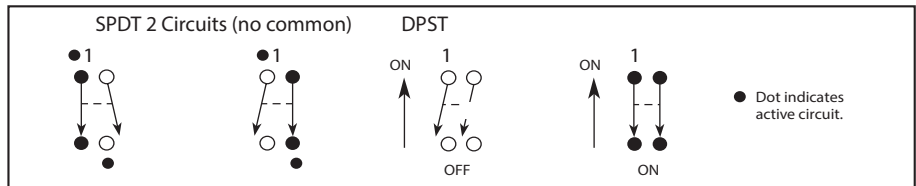
- Compatible with SMT Assembly Including Infrared Reflow and Vapor-Phase
- Reliable Spring and Ball Contact



### DIMENSIONS In inches (and millimeters)



### CIRCUITRY



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 1 megahertz

**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

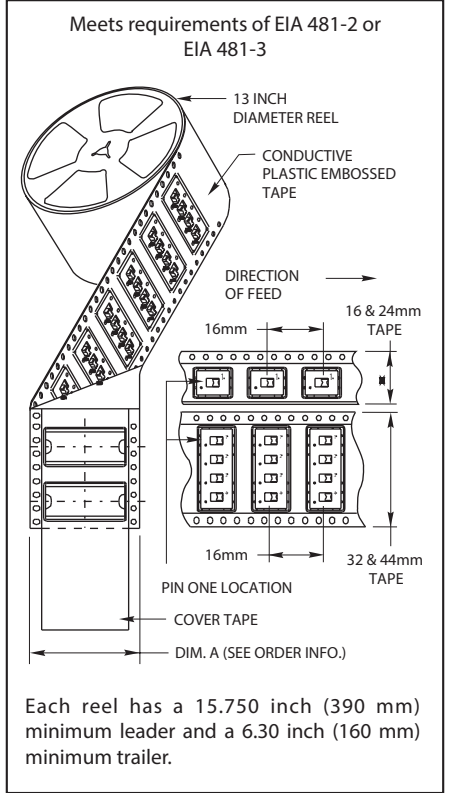
**Environmental Ratings**  
 Meets all requirements of MIL-S-83504\*\*. Where Grayhill performance is superior, the MIL spec is listed in parentheses.  
**Operating Temperature Range:** -40°C to +85°C  
**Storage Temperature Range:** -55°C to +85°C  
**Moisture Resistance:** Per MIL-STD-202, Method 106

**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

### Mechanical Ratings

Mechanical Life: 2,000 operations per switch position  
 Vibration Resistance: Per method 204, Test Condition B. 1 mS opening (10 mS allowed)

### TAPE AND REEL PACKAGING



### 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

\* 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.

DIP Switches