## SERIES 76HP

## Side Actuated PIANO-DIP ${ }^{\circledR}$

DIMENSIONS In inches (and millimeters)


## FEATURES

- Compatible with SMT Assembly Including Infrared Reflow and Vapor-Phase
- Easily Accessed when PC Boards are Racked
- Reliable Spring and Ball Contact



## CIRCUITRY

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

in the drawing.

## SPECIFICATIONS

## Electrical Ratings

Make-and-break Current Rating: 2,000 operations per switch position at $1 \mathrm{~mA}, 5 \mathrm{Vdc} ; 50$ $\mathrm{mA}, 30 \mathrm{Vdc}$; or $150 \mathrm{~mA}, 30 \mathrm{Vdc}$
Contact Resistance: Initial: 30 mohms maximum; After Life: 100 mohms maximum ( 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
Dielectric Strength: Minimum voltage (AC RMS) measured between adjacent closed contacts and also across open switch contacts. Initial: 750 volts; After Life: 500 volts
Carry Rating: 5 amps , maximum rise of $20^{\circ} \mathrm{C}$ Switch Capacitance: 2 pF at 1 megahertz

## Mechanical Ratings

Mechanical Life: 2,000 operations per switch position
Vibration Resistance: Per Method 204, Test
ORDERING INFORMATION: Tape and Reel Packaging (500 switches per reel)

| No. of <br> Positions | Length <br> (inches) | Length <br> (metric) | Carrier Width <br> Dim. A | Part <br> Number |
| :---: | :---: | :---: | :---: | :---: |
| 2 | $0.280^{\prime \prime}$ | $7,1 \mathrm{~mm}$ | 24 mm | 76HPSB02GWRT |
| 4 | $0.480^{\prime \prime}$ | $12,2 \mathrm{~mm}$ | 24 mm | 76HPSB04GWRT |
| 6 | $0.680^{\prime \prime}$ | $17,3 \mathrm{~mm}$ | 32 mm | 76HPSB06GWRT |
| 8 | $0.880^{\prime \prime}$ | $2,4 \mathrm{~mm}$ | 44 mm | 76HPSB08GWRT |
| 10 | $1.080^{\prime \prime}$ | $27,4 \mathrm{~mm}$ | 44 mm | 76HPSB10GWRT |

[^0]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 $85^{\circ} \mathrm{C}$; no failures

## Environmental Ratings

Meets all requirements of MIL- S-83504. Where Grayhill performance is superior, the MIL spec is listed in parentheses.
Operating Temperature Range: $-40^{\circ} \mathrm{C}$ to + $85^{\circ} \mathrm{C}$
Storage Temperature Range: $-55^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ Moisture Resistance: Per MIL-STD-202, Method 106

## Soldering Information

Solderability: Per MIL-STD-202, Method 208 Tested to EIA Standard RS-448-2.
Resistance to Soldering Heat: Per MIL-S83504, six second test
Recommended Processing Temperature: $220^{\circ} \mathrm{C}-230^{\circ} \mathrm{C}$ ( 1 pass- $260^{\circ} \mathrm{C}$ maximum)
Processing Position: Switch is to be processed 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)
Tape Seal: Not available with Tape Seal.
TAPE AND REEL PACKAGING


Each reel has a 15.750 inch ( 390 mm ) minimum leader and a $6.30 \mathrm{inch}(160 \mathrm{~mm})$ minimum trailer.


[^0]:    * For other lengths, contact Grayhill, Inc.

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

