

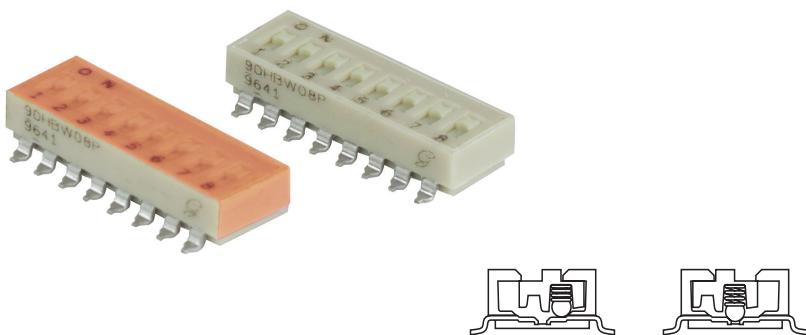
SERIES 90HB

SPST, Low Profile



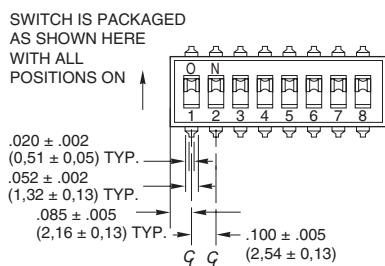
FEATURES

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

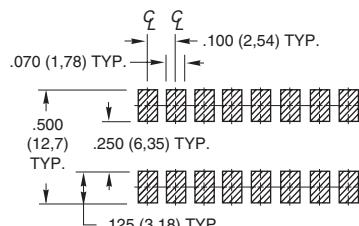


DIMENSIONS In inches (and millimeters)

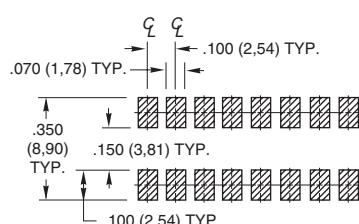
Top View—Gull Wing



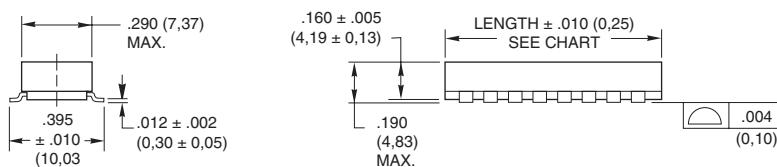
Recommended PC Pad Dimensions—Gull Wing



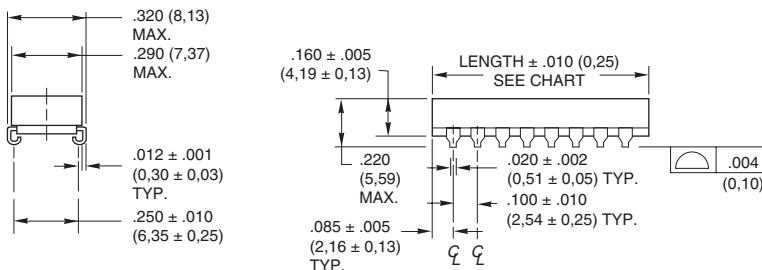
Recommended PC Pad Dimensions—J-Bend



Gull Wing



J-Bend



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 these resistive loads: 10 mA, 30 Vdc; or 10 mA, 50 mVdc; 10 mA, 50 mVdc; or 25 mA, 24 Vdc; or 100 mA, 6 Vdc.

Contact Resistance: (measured at 10 mA, 50 mVdc). Initial: 20 mohms maximum, After Life: 100 mohms maximum

Insulation Resistance: Minimum, at 100 Vdc between adjacent closed contacts and also across open switch contacts.

Initial (Mohms): 5,000, After Life (Mohms): 1,000

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

Current Carry Rating: 3A maximum rise of 20°C

Switch Capacitance: 2 pF at 1 megahertz

Mechanical Ratings

Where Grayhill performance is superior, the MIL spec is listed in parentheses.

Mechanical Life: 2,000 operations per switch position

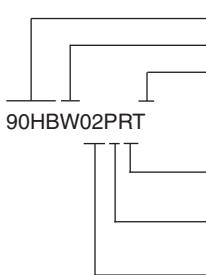
Vibration Resistance: Per Method 204, Test Condition B, 1mS opening (10 mS allowed)

Mechanical Shock: Per Method 213, Test Condition A. 1mS opening (10 mS allowed)

Thermal Shock Resistance: Per specification; no failures; passes contact resistance.

Terminal Strength: Per specification

ORDERING INFORMATION



Series
Terminal Style: W = Gull Wing, J = J-Bend
RoHS compliant

90HBW02PRT

Packaging: R = Tape and reel packaging (750 switches/reel)
Blank = Tube packaging (each tube is 19.5" long)
Seal: P = Polyimide Seal
Blank = No Seal
Number of Positions: 02 through 10

No. of Positions	Length Inches	Length Metric	Number Per Tube
2	.270"	6.9 mm	60
3	.370"	9.4 mm	47
4	.470"	11.9 mm	37
5	.570"	14.5 mm	31
6	.670"	17.0 mm	26
7	.770"	19.6 mm	23
8	.870"	22.1 mm	20
9	.970"	24.6 mm	18
10	1.070"	27.2 mm	16

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

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

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

cleaning is not recommended.

Materials and Finishes

Shorting Member (Ball): Brass, gold-plate over nickel barrier.

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

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

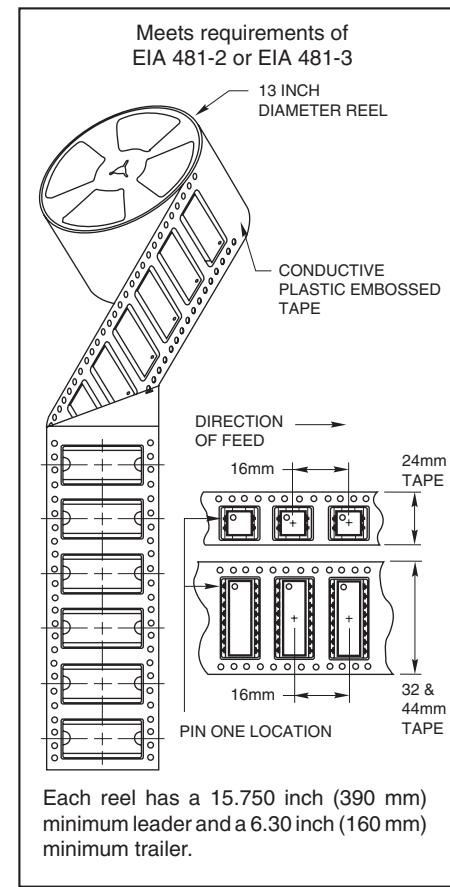
Non-Conductive Parts: Thermoplastic (UL94V-O)

Tape and Reel Packaging

Tape Seal Integrity: Passes gross leak test using 125°C flourinert for 20 seconds minimum. Reference MIL-STD-202, Method 112

Tape Seal: Polyimide film

TAPE AND REEL PACKAGING



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Grayhill:

[90HBJ03PT](#) [90HBJ04PRT](#) [90HBJ04PT](#) [90HBJ08PRT](#) [90HBJ08PT](#) [90HBW02PRT](#) [90HBW02PT](#) [90HBW03PRT](#)
[90HBW03PT](#) [90HBW04PRT](#) [90HBW04PT](#) [90HBW04RT](#) [90HBW05PRT](#) [90HBW05PT](#) [90HBW06PRT](#) [90HBW06PT](#)
[90HBW08PRT](#) [90HBW08PT](#) [90HBW08T](#) [90HBW10PRT](#) [90HBW10PT](#) [90HGBW06T](#) [90HGBW06PRT](#) [90HBJ04T](#)
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