

HOLTITE Series Press-Fit Sockets, Zero Profile



HOLTITE 8134-HC-5P3 Sockets

FEATURES:

The solderless zero-profile HOLTITE Socket contact is designed to be press-fit into the plated-thru hole of a printed wiring board. This unique design allows the plated-thru hole to become the component socket. The outer conical shape of the HOLTITE Socket contact sizes the plated-thru hole when pressed into place. The precision-machined geometry allows for the controlled displacement of plated material without damaging the hole, or affecting the normal mechanical and electrical contact performance.

- **Lowest socket profile**
The profile of the printed wiring board with the HOLTITE Socket contact installed is less than the length of the IC or component lead, offering the lowest socketing profile, permitting card rack spacing as low as .400", identical to that of direct soldering.
- **Precision-machined, tapered-entry, four finger contact**
The underlying contact design used in the HOLTITE Socket system has a proven record of reliability after more than fifteen years' usage in both commercial and military applications.
- **Retains minimum component lead lengths**
The socketing technique provides the shortest distance between the component seating plane and the contact engagement zone for maximum retention of short component leads.
- **Maximum heat dissipation**
Open contact design permits air flow through the board, increasing heat dissipation and extending component life.
- **Solderless, gas-tight, press-fit insertion**
The solderless, pluggable system saves the time and cost of soldering, plus minimising the potential for heat damage, warpage and corrosive residue contamination.
- **Removes artwork design restrictions**
Use of the HOLTITE Socket solderless system removes certain artwork restrictions necessary for wave soldering and solder joint construction. Line spacing can be made as tight as electrical parameters allow without solder bridging or the need for soldermask. Terminal areas can be reduced in diameter without the need of a base for solder fillets. Ground plane areas can be increased without concern for heat-induced warpage.
- **Immediate conversion to the HOLTITE Socket system**
Existing printed wiring designs can be converted by simply changing the drilled hole diameter prior to plating.

MATERIAL SPECIFICATIONS:

Carrier StripMYLAR
ContactBeryllium copper
Finish.....Gold or tin/lead plated

PERFORMANCE SPECIFICATIONS: 5P HOLTITE SOCKETS

MECHANICAL

VibrationPassed MIL-STD-202, Method 204, 20 G's
DurabilityPassed MIL-STD-1344, Method 2016, 50 cycles
Insertion Force92 Grams (3.2 oz.) average with a .018" polished steel pin and a .043" plated thru hole
Withdrawal Force103 Grams (3.6 oz.) average with a .018" polished steel pin and a .043" plated thru hole

Contact Retention
in Board 5 Lb. minimum

ELECTRICAL

Contact Resistance10 Milliohms max.
Contact Rating.....3 Amps

ENVIRONMENTAL

HumidityPassed MIL-STD-202, Method 106
Thermal ShockPassed MIL-STD-202, Method 107, Cond. F
Operation Temp.Gold contact -55°C to +125°C,
Tin/lead contact -55°C to +105°C

For performance specifications on 6P, 8P and 12P HOLTITE Sockets, please consult Tyco Electronics.



Sockets

HOLTITE Series Press-Fit Sockets, Zero Profile

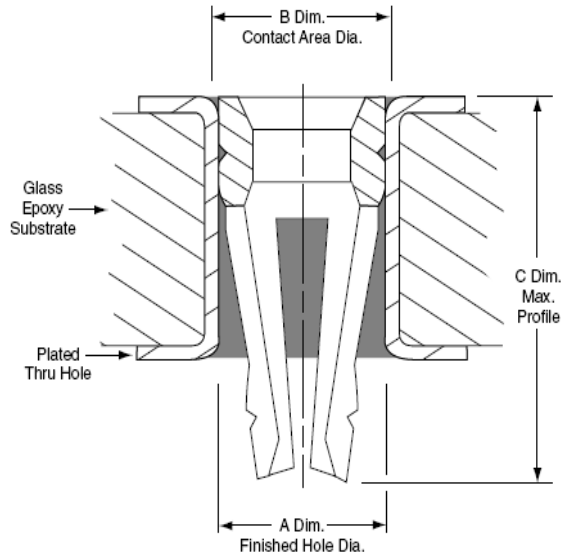


TABLE 1: PART NUMBERS

Military Part Number	Augat Part Number
M83505/6-001	M8134-HC-5P2
M83505/6-002	M8134-HC-6P2
M83505/6-003	M8134-HC-8P2
M83505/6-004	M8134-HC-12P2

RECOMMENDED HOLE SIZE AND LEAD SIZE

Part Number	Recommended Lead Size	Recommended Primary Drill Size	A Dim. Finished Plated-Thru Hole Size	B Dim. Contact Diameter	C Dim. Maximum Profile	Board Thickness	Plated-Thru Hole Finish
8134-HC-5P2 (Gold)	Rectangular Lead .011 x .018 (±.002) (0,28 x 0,46) (±0,05) or Round Lead .016 - .021 (0,406 - 0,533) Diameter	.0453 (1,15)	.041 ± .002 (1,04 ± 0,05)	.044 ± .0005 (1,12 ± 0,01)	.100 (2,54)	.030 (0,75) Minimum	.0003 - .0005 (0,0076 - 0,0127) Electro-deposited Tin/Lead over .001 (0,0254) Minimum Thick Electro Deposited Copper Plate
8134-HC-5P3 (Tin/Lead)							
8134-HC-6P2 (Gold)	Round Lead .020 - .030 (0,51 - 0,76) Diameter	.0635 (1,61)	.058 ± .002 (1,47 ± 0,05)	.0625 ± .0005 (1,59 ± 0,01)	.140 (3,56)		
8134-HC-6P3 (Tin/Lead)							
8134-HC-8P2 (Gold)	Round Lead .025 - .035 (0,64 - 0,89) Diameter	.0875 (2,22)	.082 ± .002 (2,08 ± 0,05)	.0860 ± .0005 (2,18 ± 0,01)	.160 (4,06)	.050 (1,27) Minimum	
8134-HC-8P3 (Tin/Lead)	Also suitable for use with .025 sq. post						
8134-HC-12P2 (Gold)	Round Lead .035 - .045 (0,89 - 1,14) Diameter						
8134-HC-12P3 (Tin/Lead)							

Oversized Holtite

When recommended plated thru hole size has been exceeded by .002 (0,05) or less:
Part Numbers: 8134-HC-14P2 for 5P2; 8134-HC-14P3 for 5P3.

Gold Holtite Bulk Package are available qualified to MIL-S-83505.
See Table 1 for part numbers.