

INCH-POUND

MIL-DTL-55302/20E
24 March 2004
SUPERSEDING
MIL-C-55302/20D
12 December 1979

DETAIL SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES: RECEPTACLE, SOCKET CONTACT, STRAIGHT-THRU, FOR PRINTED WIRING BOARDS (.150 SPACING)

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-55302.

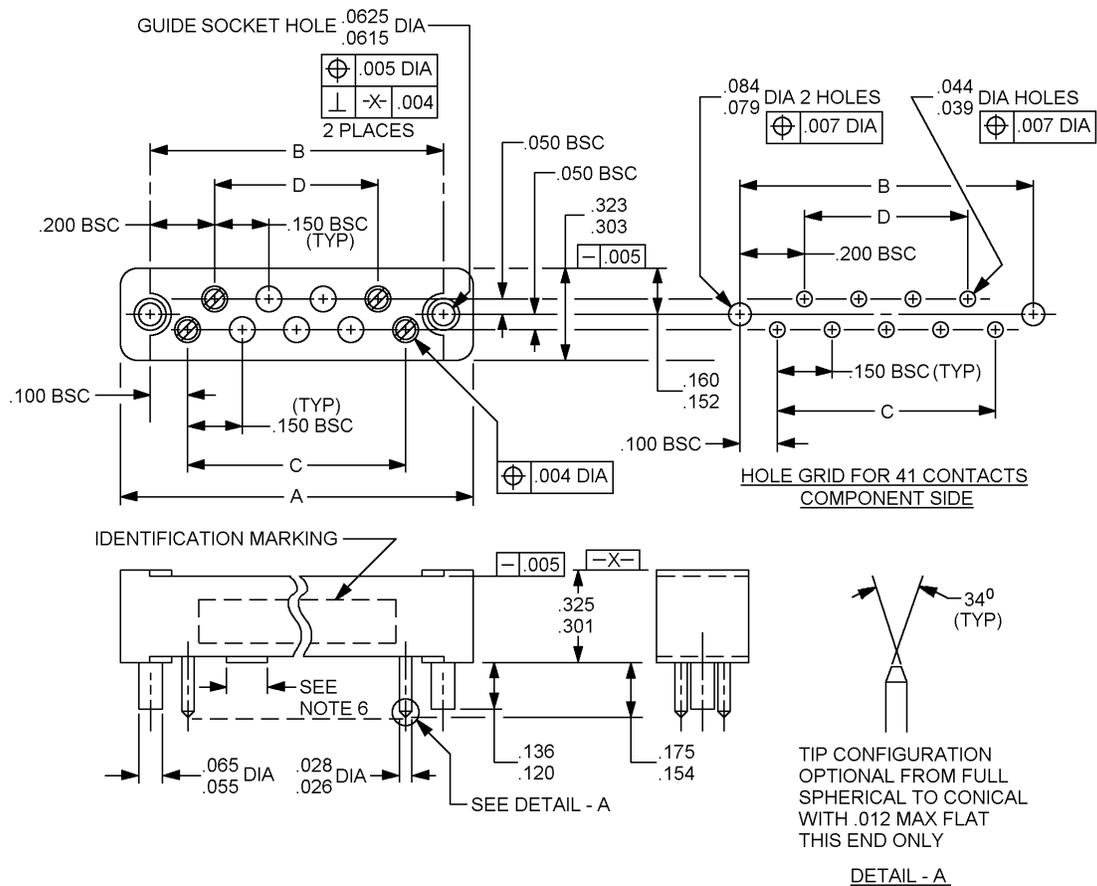


FIGURE 1. Connectors, receptacle (.100 spacing).

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Inches	mm	Inches	mm	Inches	mm
.004	0.10	.0625	1.588	.175	4.44
.005	0.13	.065	1.65	.160	4.06
.007	0.18	.079	2.01	.200	5.08
.012	0.30	.084	2.13	.301	7.65
.026	0.66	.100	2.54	.303	7.70
.028	0.71	.120	3.05	.323	8.20
.039	0.99	.136	3.45	.325	8.26
.044	1.12	.150	3.81	2.850	72.39
.050	1.27	.152	3.86	3.000	76.20
.055	1.40	.154	3.91	3.200	81.28
.0615	1.562	.160	4.06	3.350	85.09

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances are ± 0.005 (0.13 mm).
4. These connectors mate with connectors specified in MIL-DTL-55302/19 and are primarily for use with single-sided, double-sided, or multilayered printed wiring board.
5. Positional tolerances of guide pins shall apply at datum plane X.
6. Pad(s) suitable for printed circuit boards support are optional. Dimensions and location(s) are optional.

FIGURE 1. Connectors, plug (.100 spacing) - Continued.

REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figure 1.

Material:

Guide sockets and guide bushings: Brass C21000, as specified in ASTM B134, or FC brass as specified in ASTM B16.

Plating:

Guide sockets and guide bushings: Gold over copper, type II, class 1.27, code C, as specified in ASTM B488.

Contact:

Gold in accordance with ASTM B488, type II, code C, class 1.27, over nickel-plating in accordance with SAE-AMS-QQ-N-290, class 2, 50 to 150 microinches.

Contact identification: Shall be numerical and sequential in the pattern indicated.

Pin size: 23

Wire size: 22

Current rating: 5 amperes, maximum.

Mating and unmating:

The maximum insertion force, in pounds, shall not exceed a value equal to .5 times the number of contacts.

Contact engagement and separation force:

The individual contact withdrawal force shall be .5-ounce minimum when tested with a minimum diameter test pin in accordance with SAE-AS31971-23X1.

Contact resistance:

The average resistance of all contact pairs measured shall not exceed .010 ohm, and no individual contact pair shall have a resistance exceeding .020 ohm.

Dielectric withstanding voltage:

Sea level: 1,000 volts rms, 60 Hz, ac.

High altitude: 500 volts rms, 60 Hz, ac.

Part or Identifying Number (PIN): M55302/20-01.

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Reference documents. In addition to MIL-DTL-55302, this document references the following:

MIL-DTL-55302/19	SAE-AMS-QQ-N-290
ASTM B16	SAE-AS31971
ASTM B134	
ASTM B488	

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CONCLUDING MATERIAL

Custodians:

Army - CR
Navy - EC
Air Force - 11
DLA - CC

Preparing activity:
DLA - CC

(Project 5935-4411-009)

Review activities:

Army - AT, AV, CR4, MI
Navy - AS, MC, OS, SH
Air Force - 19, 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <http://www.dodssp.daps.mil>.