INCH-POUND

MIL-DTL-55302/2F
w/AMENDMENT 2
26 April 2013
SUPERSEDING
MIL-DTL-55302/2F
w/AMENDMENT 1
5 December 2012

DETAIL SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES: RECEPTACLE, SOCKET CONTACTS, 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.

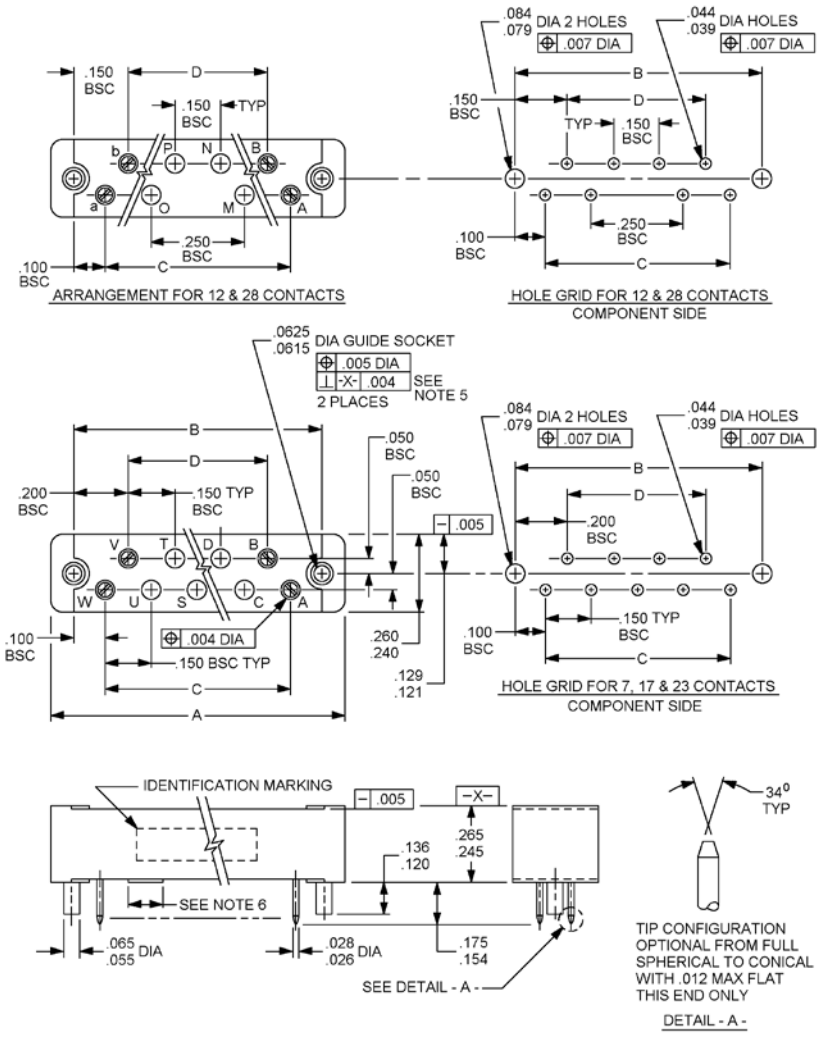
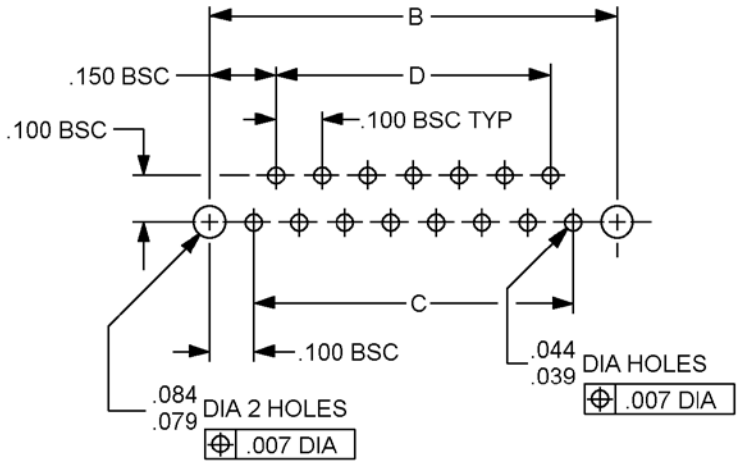


FIGURE 1. Connectors, receptacle (.100 spacing).



TYPICAL HOLE GRID LAYOUT
COMPONENT SIDE

Dash no.	No. of contacts	A ±.005	B basic	C ref	D ref
01	7	.800	.650	.450	.300
02	12	1.200	1.050	.850	.750
03	17	1.550	1.400	1.200	1.050
04	23	2.000	1.850	1.650	1.500
05	28	2.400	2.250	2.050	1.950
06	77	4.150	4.000	3.800	3.700

Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.004	.10	.0615	1.562	.136	3.45	.265	6.73	1.400	35.56	3.700	93.98
.005	.13	.0625	1.588	.150	3.81	.300	7.62	1.500	38.10	3.800	96.52
.007	.15	.065	1.65	.154	3.91	.450	11.43	1.550	39.37	4.000	101.60
.012	.30	.079	2.01	.175	4.45	.650	16.51	1.650	41.91	4.150	105.41
.026	.66	.084	2.132	.200	5.08	.750	19.05	1.850	46.99		
.039	.99	.100	2.54	.240	6.10	.800	20.32	1.950	49.53		
.044	1.12	.120	3.05	.245	6.22	.850	21.59	2.000	50.80		
.050	1.27	.121	3.07	.250	6.35	1.050	26.67	2.250	57.15		
.055	1.40	.129	3.28	.260	6.60	1.200	30.48	2.400	60.96		

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances are ± .005 (0.13 mm) on three place decimals and ± 2° on angles.
4. These connectors mate with connectors specified in MIL-DTL-55302/1 and are primarily for use with single sided, double-sided, or multilayered printed wiring boards.
5. Positional tolerances of guide pins shall apply at datum plane X.
6. Pad(s) suitable for printed circuit board support are required. Dimensions and location(s) are optional.

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

REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figure 1.

Material:

Guide pins and guide bushing: Brass composition B, 60,000 to 70,000 PSI tensile, as specified in ASTM B134/B134M, or FC brass as specified in ASTM B16/B16M or Alloy C33500 in accordance with ASTM B453/B453M.

Plating:

Guide pins and guide bushings: Gold over copper, type II, class 1, grade C, in accordance with MIL-DTL-45204 or equivalent.

Contact: Gold in accordance with MIL-DTL-45204, type II, grade C, class 1 or equivalent, over nickel plating in accordance with SAE-AMS-QQ-N-290, class 2, 50 to 150 microinches.

Contact identification: Shall be alphabetical and sequential in the pattern indicated, using upper case characters followed by lower case characters.

Socket size: 23.

Wire size: 22.

Current rating: 5 amperes, maximum.

Contact identification: Shall be alphabetical and sequential in the pattern indicated, using upper case characters followed by lower case characters.

Mating and unmating: The maximum insertion force, in pounds shall not exceed a value equal to 0.5 times the number of contacts for standard force contacts and .25 times the number of contacts for low insertion force contacts times the number of contacts.

Contact engagement and separate force: The individual contact withdrawal force shall be .5 ounce minimum for standard force contacts and .25 ounce minimum for low force contacts 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.

Example of Part or Identifying Number (PIN): M55302/2 - 06

Basic number of specification sheet

Type of contacts
- = Standard insertion force contacts
L = Low insertion force contacts

Dash number (see figure 1)

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

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

MIL-DTL-55302/1
MIL-DTL-45204
ASTM B16/B16M
ASTM B134/B134M
ASTM B453/B453M
SAE-AMS-QQ-N-290

CONCLUDING MATERIAL

Custodians:
Army – CR
Navy - EC
Air Force – 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5935-2013-129)

Review activities:
Army – AT, AV, MI
Navy – AS, MC, OS
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 https://assist.dla.mil/.