

INCH-POUND

MIL-DTL-55302/111B
w/AMENDMENT 1
12 September 2012
SUPERSEDING
MIL-DTL-55302/111B
22 May 2006

DETAIL SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES: RECEPTACLE SOCKET CONTACTS, STRAIGHT-THRU, FOR MULTILAYERED PRINTED WIRING BOARDS (.100 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.

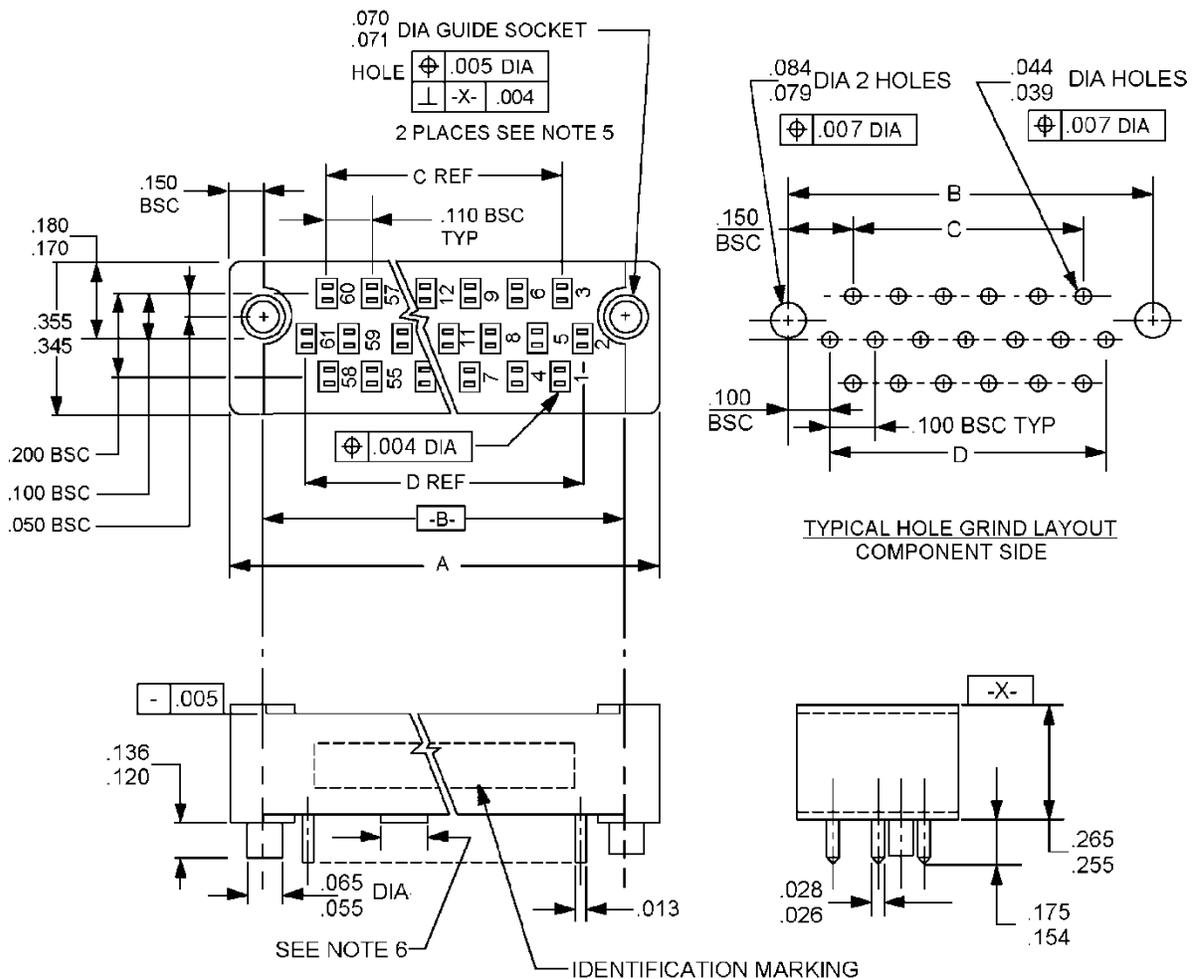


FIGURE 1. Connectors receptacle, .100 (2.54 mm) spacing.

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TABLE I. Dash numbers and dimensions for types II and III.

Dash numbers	Number of contacts	A	B Basic	C Ref.	D Ref.
01	13	.800 ±.005	.600	.300	.400
02	25	1.200 ±.005	1.000	.700	.800
03	37	1.600 ±.005	1.400	1.100	1.200
04	49	2.000 ±.005	1.800	1.500	1.600
05	61	2.400 ±.005	2.200	1.900	2.000

Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.004	0.10	.050	1.27	.136	3.45	.300	7.62	1.200	30.48
.005	0.13	.055	1.40	.150	3.81	.345	8.76	1.400	35.56
.007	0.18	.065	1.65	.154	3.91	.355	9.02	1.500	38.10
.008	0.20	.070	1.78	.170	4.32	.400	10.16	1.600	40.64
.013	0.33	.071	1.80	.175	4.45	.600	15.24	1.800	45.72
.026	0.66	.079	2.01	.180	4.57	.700	17.78	1.900	48.26
.028	0.71	.084	2.13	.200	5.08	.800	20.32	2.000	50.80
.039	0.99	.100	2.54	.255	6.48	1.000	25.40	2.200	55.88
.044	1.12	.120	3.05	.265	6.73	1.100	27.94	2.400	69.96

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-55302/7, and are primarily for use with 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 (2.54 mm) spacing - Continued.

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REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figure 1 and table I.

Material:

Guide sockets and guide bushings: 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.

Plating:

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

Contacts:

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 pattern indicated.

Socket size: 23

Wire size: 22

Current rating: 5 amperes, maximum.

Oversize pin exclusion: Not applicable.

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 minimum diameter test pin Part or Identifying Number (PIN) MS31971-23X1.

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.

Probe damage: Test procedure EIA-364-25.

Contact size: 23

Test probe: .027 diameter.

Bending moment: .125 inch pounds.

Depth of insertion: .156 from connector face.

Dielectric withstanding voltage:

Sea level: 1000 volts rms, 60 Hz, ac.

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

PIN: M55302/111-(dash number from figure 1).

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Qualification: Qualification is not required for this specification sheet.

First article testing (FAT): FAT shall be in accordance with MIL-DTL-55302, qualification inspection.

Amendment notations. The margins of this specification are marked with vertical lines to indicate where modifications from this amendment were made. 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-55302/7
ASTM B16/B16M
ASTM B134/B134M
ASTM B488
EIA-364-25
SAE AMS-QQ-N-290

CONCLUDING MATERIAL

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:

DLA - CC

(Project 5935-2012-104)

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>.