

INCH-POUND  
MIL-DTL-55302/6H  
3 February 2003  
SUPERSEDING  
MIL-C-55302/6G  
13 April 1988

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 used by all Departments  
and Agencies of the Department of Defense.

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

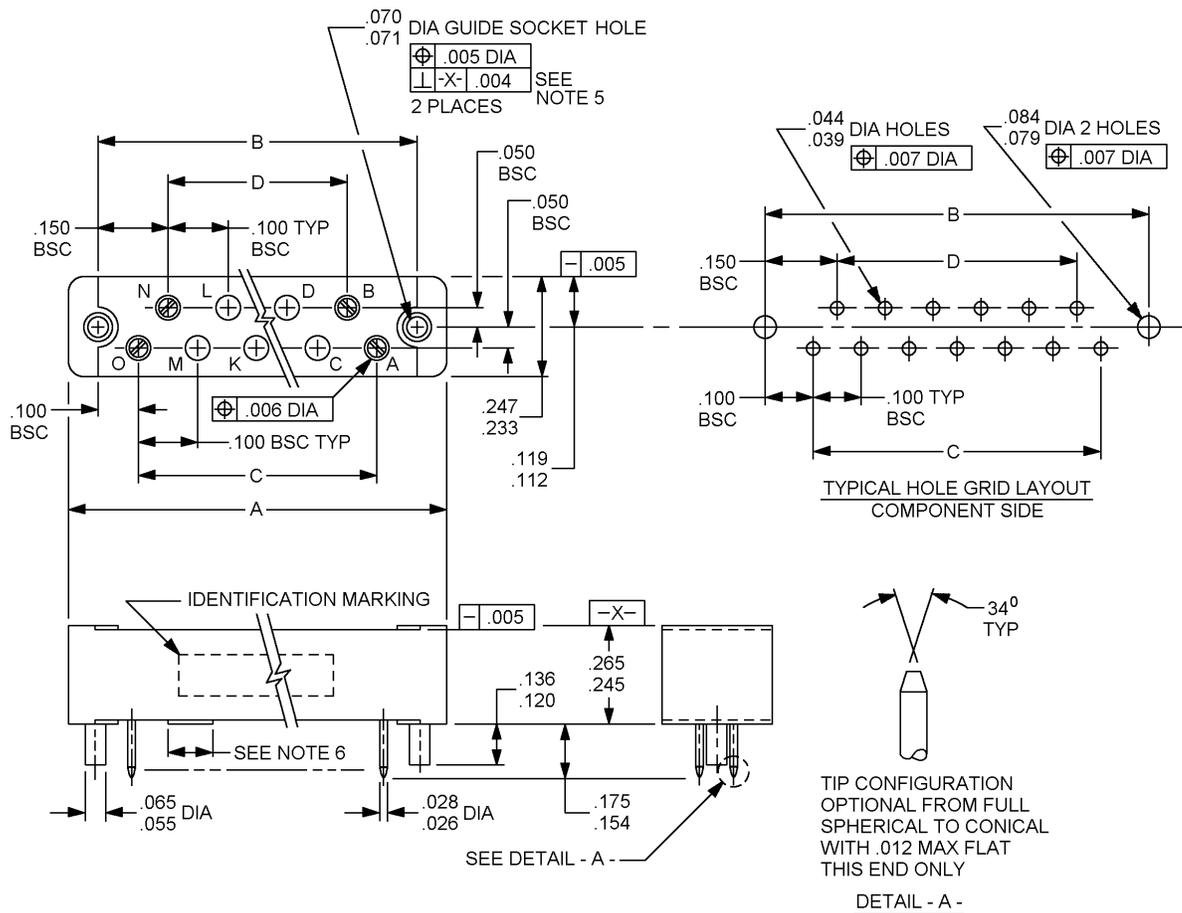
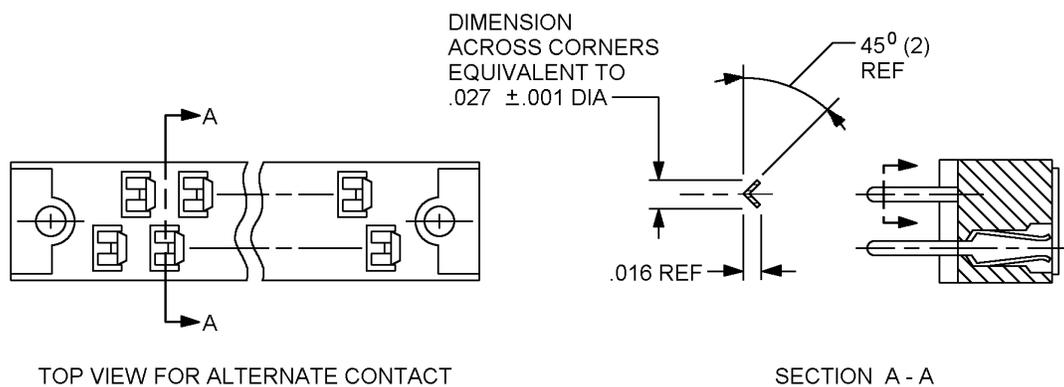


FIGURE 1. Connectors, receptacle (.100 spacing).

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ALTERNATE CONTACT CONSTRUCTION

TABLE 1. Dimensions and dash numbers.

Dash no.	No. of contacts	A ±.010	B basic	C ref	D ref
01	9	.750	.600	.400	.300
02	17	1.150	1.000	.800	.700
03	25	1.550	1.400	1.200	1.000
04	33	1.950	1.800	1.600	1.500
05	41	2.350	2.200	2.000	1.900
06	77	4.150	4.000	3.800	3.700

Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.001	0.03	.044	1.12	.120	3.05	.600	15.24	1.600	40.64
.004	0.10	.050	1.27	.136	3.45	.700	17.78	1.800	45.72
.005	0.13	.055	1.40	.150	3.81	.750	19.05	1.900	48.26
.006	0.15	.065	1.65	.154	3.91	.800	20.32	1.950	49.53
.007	0.18	.070	1.78	.175	4.44	1.000	25.40	2.000	50.80
.012	0.30	.071	1.80	.233	5.92	1.100	27.94	2.220	56.39
.016	0.40	.079	2.01	.245	6.22	1.150	29.21	2.350	59.69
.026	0.66	.084	2.13	.247	6.27	1.200	30.48	3.700	93.98
.027	0.69	.100	2.54	.265	6.73	1.400	35.56	3.800	96.52
.028	0.71	.112	2.84	.300	7.62	1.500	38.10	4.000	101.60
.039	0.99	.119	3.02	.400	10.16	1.550	39.37	4.150	105.41

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general 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-55302/4 and MIL-DTL-55302/5, 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 spacing) - Continued.

REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figure 1 and table I.

Material:

Guide pins and guide bushing: Brass composition B, 60,000 to 70,000 PSI tensile, as specified in ASTM-B134, or FC brass as specified in ASTM B16.

Plating:

Guide pins and guide bushings: Copper alloy in accordance with ASTM B134, or ASTM B16.

Contact: Gold overall in accordance with ASTM B488, type II, grade C, class 1.27, over nickel plating in accordance with SAE-AMS-QQ-N-290, class 2, 50 to 150 microinches, or localized contact finish with contact engagement end gold plated with type II, class 1.27, grade C in accordance with ASTM B488 over nickel underplate, class 2, 30 to 150 microinches as specified in SAE-AMS-QQ-N-290, and contact termination end plating tin lead (50% to 70%) composition 100 microinches minimum thickness in accordance SAE-AMS-P-81728 over nickel underplate. Solder dipping is permitted providing it meets procedures and requirements of MIL-STD-202, method 208.

Contact identification: Shall be alphabetical and sequential in the pattern indicated, using upper case characters followed by lower case characters. Dash number 06. The characters shall be numerical and sequential in pattern indicated.

Pin 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 0.5 times the number of contacts.

Contact engagement and separation forces: The individual contact withdrawal force shall be .5-ounce minimum when tested with a minimum diameter test pin per SAE-AS3197-23X1.

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): M55302/6-(dash number from figure 1).

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CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 5935-4411-05)

Review activities:

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