

INCH-POUND

MIL-DTL-55302/5E  
3 February 2003  
SUPERSEDING  
MIL-C-55302/5D  
12 December 1979

DETAIL SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES:  
PLUG, PIN 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.

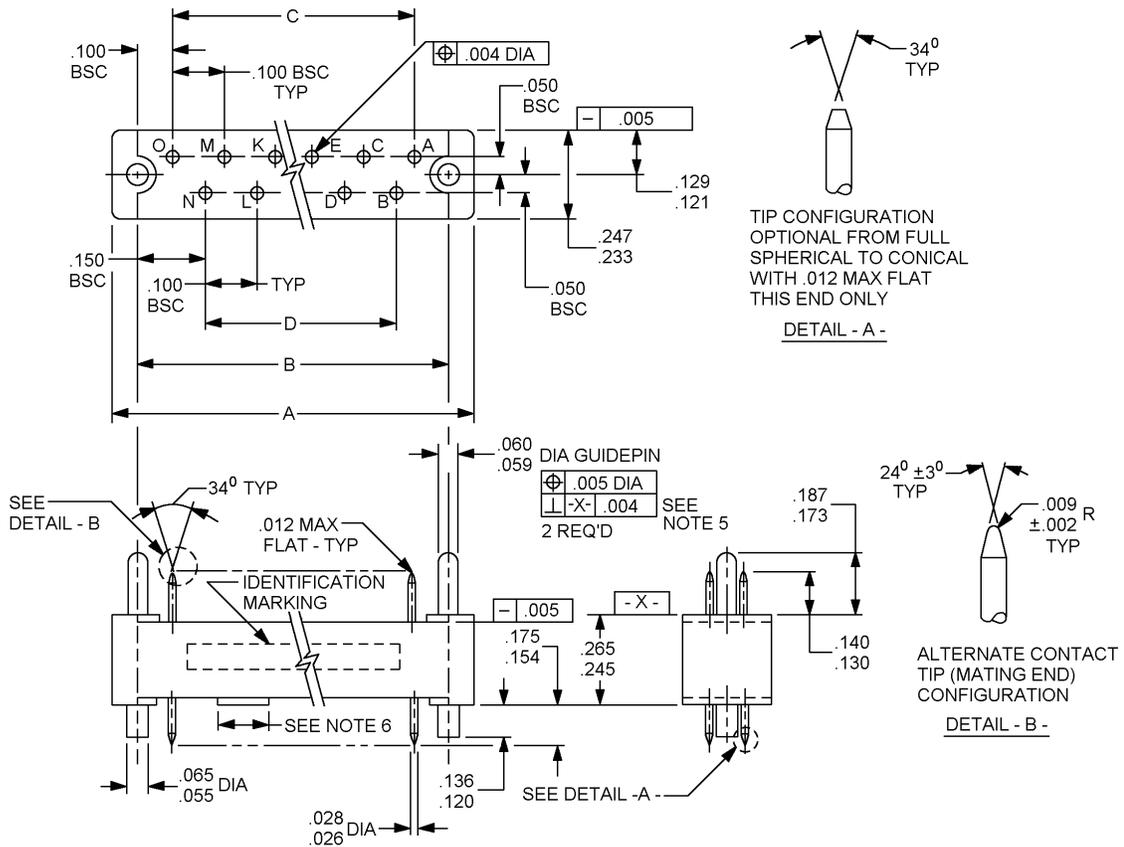


FIGURE 1. Connectors, plug (.100 spacing).

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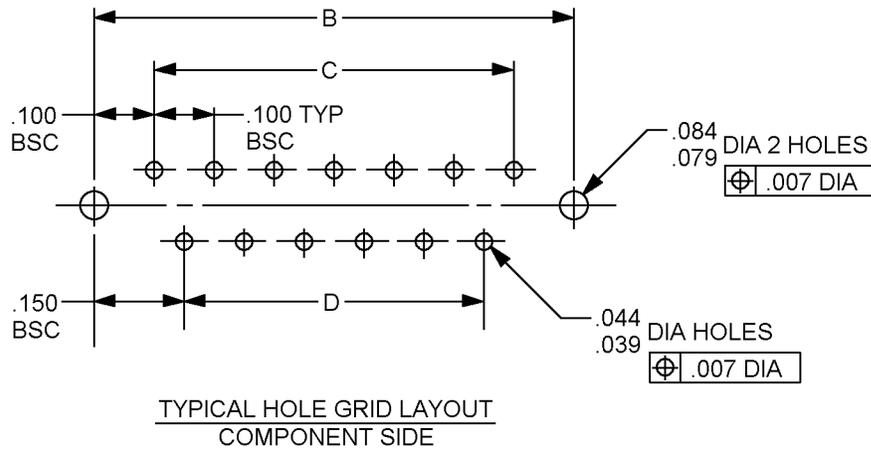


TABLE 1. Dimensions and dash numbers.

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	Inches	mm
.002	0.05	.044	1.12	.121	3.07	.233	5.92	1.000	25.40	1.950	49.53
.004	0.10	.050	1.27	.129	3.28	.245	6.22	1.100	27.94	2.000	50.80
.005	0.13	.055	1.40	.130	3.30	.247	6.27	1.150	29.21	2.200	55.88
.007	0.18	.059	1.502	.136	3.45	.265	6.73	1.200	30.48	2.350	59.69
.009	0.23	.060	1.52	.140	3.56	.300	7.62	1.400	35.56	3.700	93.98
.010	0.25	.065	1.65	.150	3.81	.400	10.16	1.500	38.10	3.800	96.52
.012	0.30	.079	2.01	.154	3.91	.600	15.24	1.550	39.37	4.000	101.60
.026	0.66	.084	2.13	.173	4.39	.700	17.78	1.600	40.64	4.150	105.41
.028	0.71	.100	2.54	.175	4.45	.750	19.05	1.800	45.72		
.039	0.99	.120	3.05	.187	4.75	.800	20.32	1.900	48.26		

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-55302/6 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, plug (.100 spacing) - Continued.

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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, or stainless steel in accordance with ASTM A484 and ASTM A582, passivated in accordance with SAE-AMS-QQ-P-35.

Plating:

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

Contact: Gold in accordance 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.

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.

Socket 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 0.5 times the number of contacts, and the withdrawal force, in pounds, shall be a minimum of 0.11 times the number of contacts, and shall not exceed the measured insertion force.

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): M55302/5-(dash number from figure 1).

CONCLUDING MATERIAL

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

Preparing activity:  
DLA - CC  
  
(Project 5935-4411-004)

Review activities:  
Army - AT, AV  
Navy - AS, MC, OS  
Air Force - 19, 99