

INCH-POUND  
MIL-DTL-83505/8B  
17 May 2004  
SUPERSEDING  
MIL-S-83505/8A  
12 September 1994

DETAIL SPECIFICATION SHEET

SOCKETS (LEAD, ELECTRONIC COMPONENTS) (TYPE I, SOLDERLESS WRAP)  
LOW INSERTION FORCE (LIF)

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-83505.

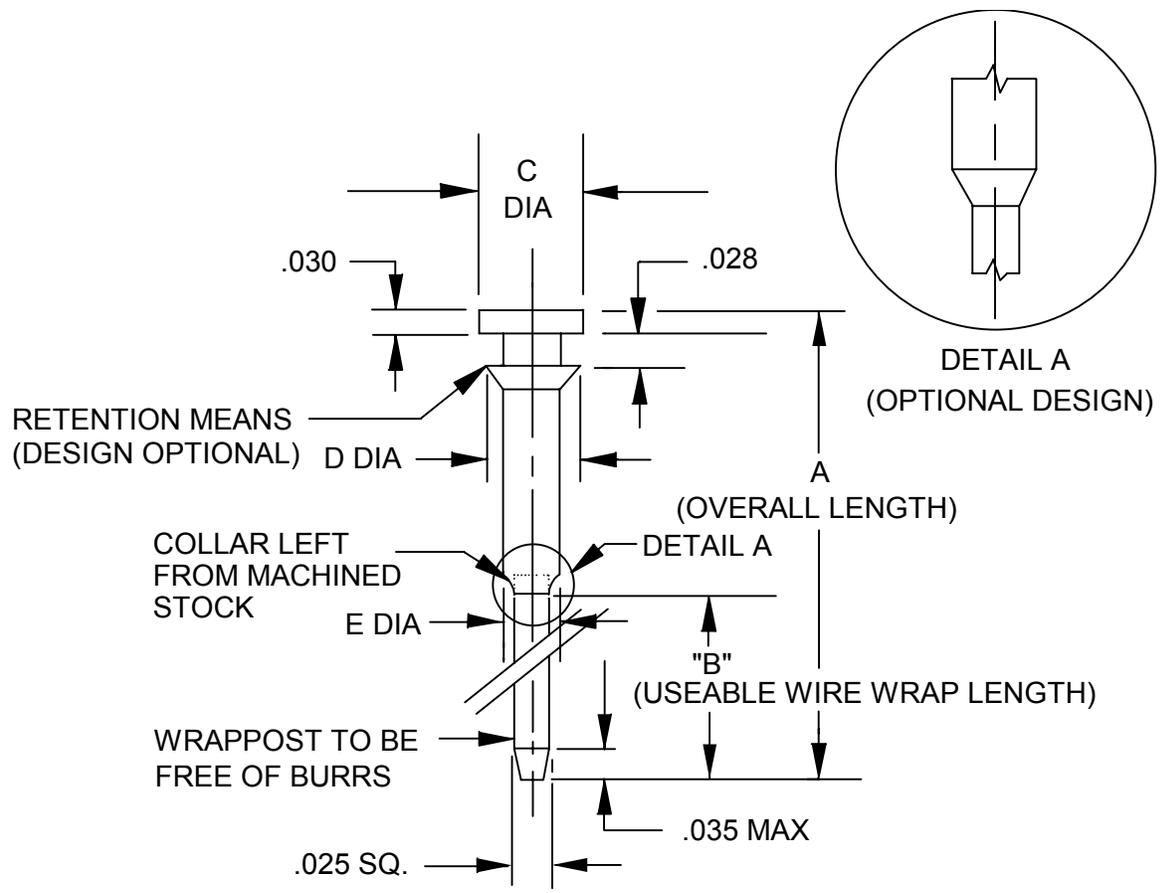


FIGURE 1. Socket, lead, (type I) solderless wrap LIF.

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Dash number	A ±.010 inch	B ±.010 inch	C Dia inch	D Dia ±.002 inch	E Dia inch
-001 -002	.703	.475	.072	.060	.052
-003 -004	.563	.335	.072	.060	.052
-005 -006	.453	.225	.072	.060	.052
-007 -008	.812	.475	.085	.082	.073
-009 -010	.703	.475	.063 .003	.060	.052
-011 -012	.563	.335	.063 .003	.060	.052
-013 -014	.453	.225	.063 .003	.060	.052

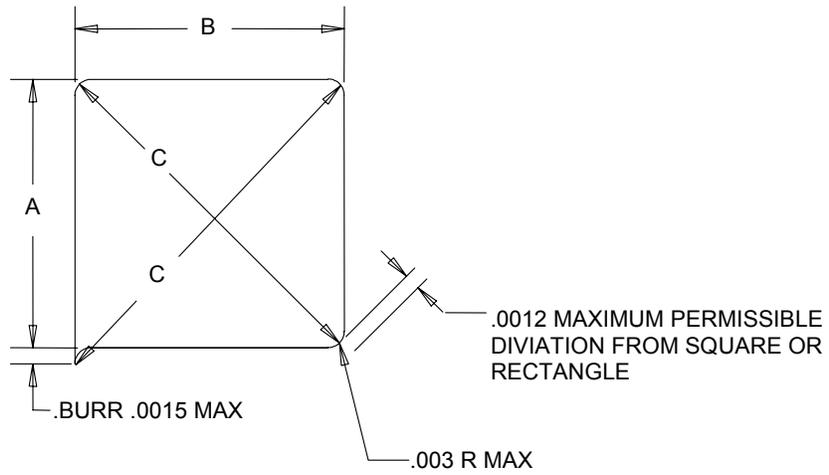
Inches	mm	Inches	mm	Inches	mm
.002	0.05	.072	1.83	.453	11.50
.003	0.08	.073	1.85	.475	12.07
.010	0.25	.082	2.08	.563	14.30
.052	1.32	.085	2.16	.703	17.86
.060	1.52	.225	5.71	.812	20.62
.063	1.60	.335	8.51		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified the tolerance for three place decimals is ±.005 inch (0.13 mm).
4. Part is to be free of burrs or sharp edges except as noted.
5. Dimensions apply after plating.

FIGURE 1. Socket, lead, (type I) solderless wrap, LIF - Continued.

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Inches	mm
.0012	0.030
.0015	0.038
.003	0.076

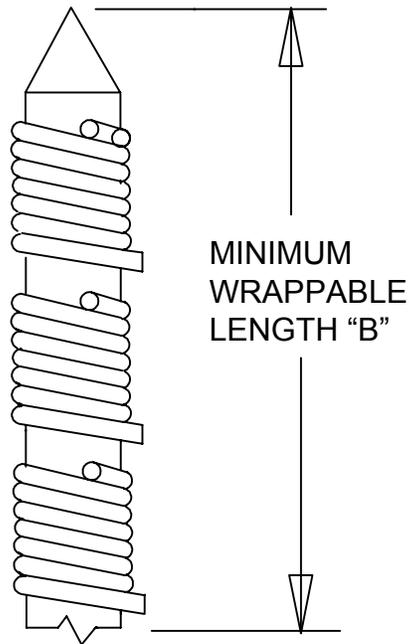
A (mm)	B (mm)	C (mm)	Parallelism (mm)	Straightness Inch/inch (mm)
.025 (0.63) nominal	.025 (0.63) nominal	.0355 (0.902) max	.002	.005
.022 (0.56) min	.022 (0.56) min	.0325 (0.825) min	(0.05)	(0.13)

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.

FIGURE 2. Wrappost geometry.

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MINIMUM WRAPPABLE LENGTH, -B, INCHES  
(See note 5)

Number of wrapped connections	Wire gauge (AWG)						
	30	28	26	24	22	20	18
1	.185 (4.70)	.219 (5.56)	.226 (5.74)	.258 (6.55)	.303 (7.70)	.327 (8.31)	.391 (9.93)
2	.320 (8.13)	.388 (9.86)	.402 (10.21)	.466 (11.84)			
3	.455 (11.56)						

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Metric equivalents are in parentheses.
4. Unless otherwise specified the tolerance is  $\pm 0.005$  (0.13 mm).
5. Minimum wrappable length shall have the wrappost geometry in accordance with figure 2.

FIGURE 3. Wrappost configurations and wire gauge wrappable length.

## REQUIREMENTS

## Qualification:

Group qualification: Shall be as specified in table I.

Dimensions and configuration: Shall be in accordance with figures 1 and 2 and table II.

Solderless wrappost geometry: The solderless wrappost geometry shall be in accordance with figures 2 and 3.

TABLE I. Group qualification.

Dash number	Qualification tests
-001, -002, -009, and -010 (as applicable)	Require all qualification tests of MIL-DTL-83505.
-003 through -006 and -011 through -014 (as applicable)	Visual and mechanical tests of MIL-DTL-83505 and qualification of -001, or -002, or -009, or -010.
-007 and -008 (as applicable)	Groups 1,2, and 5 or qualification table of MIL-DTL-83505 and qualification of -001, or -002, or -009, or -010.

TABLE II. Interface dimensions and finish. <sup>1/</sup>

Dash number	Sleeve plating	Recommended mounting hole dia .001 inch (.025 mm)	Accepts pin	
			Length	Diameter
-001 and -009	Gold	.055 (1.40)	.175 (4.44)	.021 (0.53)
-002 and -010	Tin/lead		.125 (3.18)	.016 (0.41)
-003 and -011	Gold	.055 (1.40)	.175 (4.44)	.021 (0.53)
-004 and -012	Tin/lead		.125 (3.18)	.016 (0.41)
-005 and -013	Gold	.055 (1.40)	.175 (4.44)	.021 (0.52)
-006 and -014	Tin/lead		.125 (3.18)	.016 (0.41)
-007	Gold	.076 (1.93)	.281 (7.14)	.030 (0.76)
-008	Tin/lead		.156 (3.96)	.020 (0.51)

<sup>1/</sup> Metric equivalents are in parenthesis.



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CONCLUDING MATERIAL

Custodians:

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

Preparing activity:  
DLA-CC

(Project 5935-4510-002)

Review activities:

Air Force - 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>.