

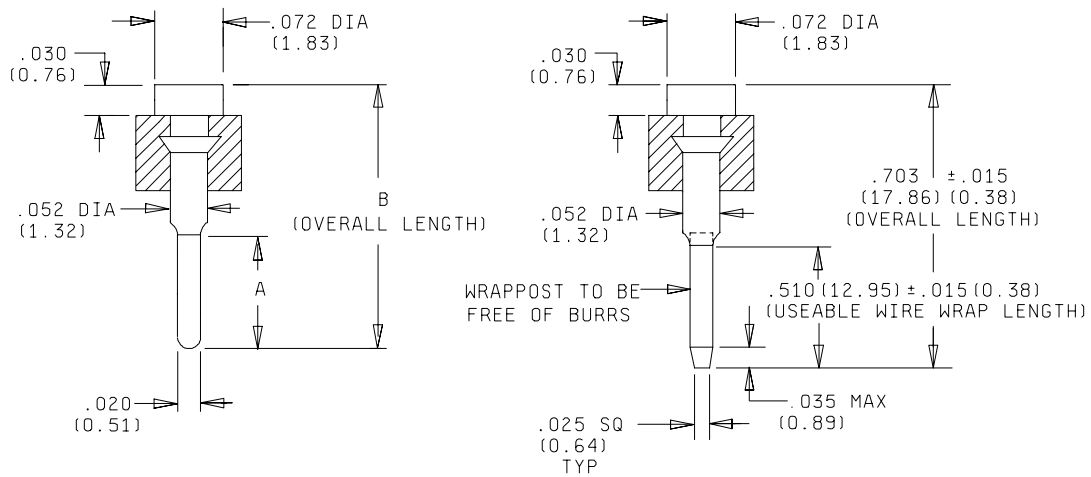
**REVISIONS**

<b>LTR</b>	<b>DESCRIPTION</b>	<b>DATE</b>	<b>APPROVED</b>
A	Change CAGE 14933 to 037Z3. Replace MIL-G-45204 with ASTM B488. Editorial change throughout.	12/18/01	Robert M Heber

Prepared in accordance with MIL-STD-100

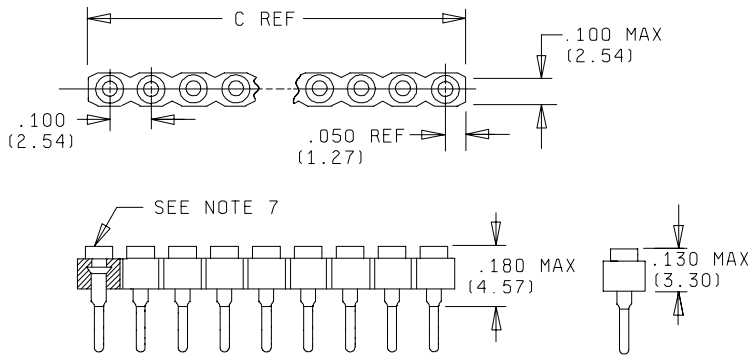
<b>REV</b>																		
<b>PAGE</b>																		
<b>REV STATUS</b>	<b>REV</b>	A	A	A	A	A	A	A	A	A								
<b>OF PAGES</b>	<b>PAGE</b>	1	2	3	4	5	6	7	8	9								

<b>PMIC - G</b>	<b>PREPARED BY</b> William Carpenter	<b>DEFENSE SUPPLY CENTER, COLUMBUS COLUMBUS, OHIO 43216-5000</b>	
Original date of drawing 7 June 1993	<b>CHECKED BY</b> Carl Dello-Stritto	<b>TITLE</b> <b>SOCKET, PLUG-IN ELECTRONIC COMPONENTS, SINGLE IN-LINE</b>	
	<b>APPROVED BY</b> Randy Larson		
	<b>SIZE</b> <b>A</b>	<b>CAGE CODE</b> <b>037Z3</b>	<b>DWG. NO.</b>
	<b>REV</b> <b>A</b>	<b>PAGE</b>	<b>1</b> <b>OF</b> <b>9</b>



Pin style 01  
Soldertail  
(see table II)

Pin style 02  
Wire wrap  
(see table II)



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, all tolerance shall be  $\pm .005$  inch (0.13 mm).
5. Part is to be free of burrs and sharp edges except as noted.
6. Dimensions apply after plating.
7. Retention design may be barbed or knurled.

FIGURE 1. Dimension and configuration.

<b>DEFENSE SUPPLY CENTER, COLUMBUS</b> <b>COLUMBUS, OH 43216-5000</b>	SIZE <b>A</b>	CAGE CODE <b>037Z3</b>	DWG NO. <b>93014</b>
		REV <b>A</b>	PAGE <b>2</b>

**REQUIREMENTS:**

Sockets shall meet the requirements of MIL-DTL-83734 (MIL-DTL-83505) except as specified herein.

Dimensions and configuration: See figure 1, table I, and table II.

Socket construction: Four tapered entry (standard) or six finger tapered entry (low insertion force), contact style A (2 piece contacts) of MIL-DTL-83734 or MIL-DTL-83505 design and construction.

**Materials:**

Insulator: Glass-or mineral-filled nylon in accordance with ASTM D4066 or glass-filled thermoplastic in accordance with MIL-M-24519. All plastic material shall be flammability rated V-0 or better in accordance with UL-94.

Socket body: ½ hard brass composition 22 in accordance with ASTM B16.

Socket contacts: Beryllium copper in accordance with ASTM B194 or ASTM B196.

Socket contact plating: Contact plating shall be 30 microinches (0.76 µm) minimum of gold in accordance with ASTM B488, type 3, code C, class 0.76.

Sleeve plating: Sleeve plating shall be 10 microinches (0.25µm) of gold minimum in accordance with ASTM B488, type 3, code C, class 0.25, or tin-lead in accordance with SAE-AMS-P-81728, 50 to 97 percent tin, 100 microinches minimum (2.54µm). Nonfunctional areas need not be plated, provided they do not cause degradation in performance.

**Electrical:**

Current rating: 1 ampere (maximum).

Contact resistance: 5 milliohms (maximum).

Dielectric withstanding voltage: 1,000 volts rms (sea level).

Insulation resistance: 5,000 megohms (minimum).

Capacitance (contact to contact): 0.4 pF (maximum).

**Environmental:**

Temperature range: See table III.

Resistance to soldering heat: Only applicable to "H" temperature range, see table III and shall be tested in accordance with EIA 364-52, procedure 4.

<b>DEFENSE SUPPLY CENTER, COLUMBUS COLUMBUS, OH 43216-5000</b>	SIZE	CAGE CODE	DWG NO.
	<b>A</b>	<b>037Z3</b>	<b>93014</b>
		REV <b>A</b>	PAGE <b>3</b>

Mechanical:

Test gauge mating force: In accordance with MIL-DTL-83734.

Insertion force (standard): 16 ozf (4.4 N) maximum per contact, after 12 insertions with .017 inch (0.43 mm) diameter test pin.

Withdrawal force (standard): 1.5 ozf (0.42 N) minimum per contact, after 12 insertions with .017 inch (0.43 mm) diameter test pin.

Insertion force (low insertion force (LIF) socket): 5.5 ozf (1.5 N) maximum per contact after 12 insertions with .018 inch (0.46 mm) diameter test pin.

Withdrawal force (low insertion force (LIF) socket): .35 ozf (0.1 N) minimum per contact, after 12 insertions with .018 inch (0.46 mm) diameter test pin.

Pin retention in insulator:

5 lbf (22 N) minimum – barb design.

2 lbf (8.9 N) minimum – knurl design.

Vibration: In accordance with MIL-DTL-83734.

Mechanical shock: In accordance with MIL-DTL-83734.

Socket durability: 50 cycles in accordance with MIL-DTL-83734.

Corrosive atmosphere: In accordance with MIL-DTL-83734.

Wrappost: The wrappost geometry shall be in accordance with figure1. Both tips of the contact shall be beveled to facilitate insertion into the bit of the wire-wrap tooling. Wrappost shall be square in position relative to the insulators wall. A maximum 10° deflection in either direction is acceptable.

Interface:

Mating lead: .015 to .022 inch (0.38 to 0.55 mm) diameter.

Mating lead length: .095 to .155 inch (2.41 to 3.94 mm).

<b>DEFENSE SUPPLY CENTER, COLUMBUS COLUMBUS, OH 43216-5000</b>	SIZE	CAGE CODE	DWG NO.
	<b>A</b>	<b>037Z3</b>	<b>93014</b>
		REV <b>A</b>	PAGE <b>4</b>

TABLE I. Dimension A. 1/ 2/ 3/

Number of positions	Dimension	Number of positions	Dimension
01	.100 (2.54)	19	1.900 (48.26)
02	.200 (5.08)	20	2.000 (50.80)
03	.300 (7.62)	21	2.100 (53.34)
04	.400 (10.16)	22	2.200 (55.88)
05	.500 (12.70)	23	2.300 (58.42)
06	.600 (15.24)	24	2.400 (60.96)
07	.700 (17.78)	25	2.500 (63.50)
08	.800 (20.32)	26	2.600 (66.04)
09	.900 (22.86)	27	2.700 (68.58)
10	1.000 (25.40)	28	2.800 (71.12)
11	1.100 (27.94)	29	2.900 (73.66)
12	1.200 (30.48)	30	3.000 (76.20)
13	1.300 (33.02)	31	3.100 (78.48)
14	1.400 (35.56)	32	3.200 (81.28)
15	1.500 (38.10)	33	3.300 (83.82)
16	1.600 (40.64)	34	3.400 (86.36)
17	1.700 (43.18)	35	3.500 (88.90)
18	1.800 (45.72)	36	3.600 (91.44)
		37	3.700 (93.98)

1/ Dimensions are in inches.

2/ Metric equivalents are in parentheses.

3/ Metric equivalents are given for information only.

<b>DEFENSE SUPPLY CENTER, COLUMBUS COLUMBUS, OH 43216-5000</b>	SIZE	CAGE CODE	DWG NO.
	<b>A</b>	<b>037Z3</b>	<b>93014</b>
		REV <b>A</b>	PAGE <b>5</b>

TABLE II. Pin style. 1/ 2/ 3/

Dash no.	Lead length "A" ±.015	Overall length "B" ±.015	Pin style (see figure 1)
01	.125 (3.175)	.300 (7.62)	01 solder tail
02	.143 (3.63)	.318 (8.08)	01 solder tail
03	.510 (12.95)	.703 (17.86)	02 wire wrap
04	.125 (3.175)	.300 (7.62)	01 (LIF) solder tail
05	.143 (3.63)	.318 (8.08)	01 (LIF) solder tail
06	.510 (12.95)	.703 (17.86)	02 (LIF) wire wrap

1/ Dimensions are in inches.

2/ Metric equivalents are in parentheses.

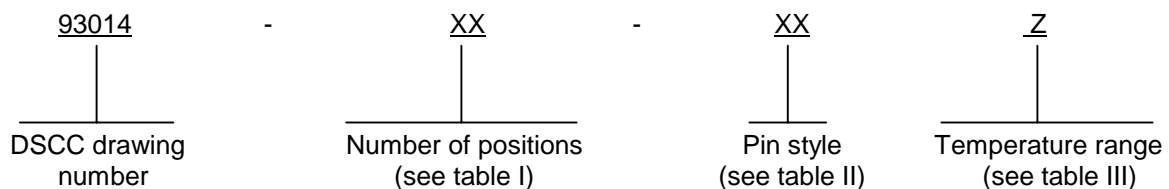
3/ Metric equivalents are given for information only.

TABLE III. Temperature range.

Pin designator	Temperature range °C 1/
Blank	-40 to +105
M	-55 to +125
H	-65 to +220

1/ For wave soldering, a mounting fixture is recommended.

Marking: The Part or Identifying Number (PIN) shall be marked on the housing and package in accordance with MIL-STD-1285. The PIN shall include the complete DSCC PIN, manufacturer's name or CAGE code, and date code. The marking shall be permanent and legible in accordance with method 215 of MIL-STD-202. The PIN shall be constructed in the following format:



Applicable note: The sockets may "break away" at the insulator provided no metal is exposed and no degradation in performance occurs.

<b>DEFENSE SUPPLY CENTER, COLUMBUS COLUMBUS, OH 43216-5000</b>	SIZE	CAGE CODE	DWG NO.
	<b>A</b>	<b>037Z3</b>	<b>93014</b>
		REV <b>A</b>	PAGE <b>6</b>

Approved sources of supply are listed herein. Additional sources will be added as they become available. The vendors listed on the requirements drawing have agreed to this drawing and a certificate of compliance has been submitted to DSCC-VAI.

DSCC drawing PIN	Vendor PIN <u>1/</u>		
	Vendor CAGE OEBT2 <u>2/</u>		
	PIN style (see table II)		
	Dash 01	Dash 02	Dash 04
93014-01-XXZ	---	---	---
93014-02-XXZ	301-002-01S-P15	301-002-03S-P15	301-002-01L-P15
93014-03-XXZ	301-003-01S-P15	301-003-03S-P15	301-003-01L-P15
93014-04-XXZ	301-004-01S-P15	301-004-03S-P15	301-004-01L-P15
93014-05-XXZ	301-005-01S-P15	301-005-03S-P15	301-005-01L-P15
93014-06-XXZ	301-006-01S-P15	301-006-03S-P15	301-006-01L-P15
93014-07-XXZ	301-007-01S-P15	301-007-03S-P15	301-007-01L-P15
93014-08-XXZ	301-008-01S-P15	301-008-03S-P15	301-008-01L-P15
93014-09-XXZ	301-009-01S-P15	301-009-03S-P15	301-009-01L-P15
93014-10-XXZ	301-010-01S-P15	301-010-03S-P15	301-010-01L-P15
93014-11-XXZ	301-011-01S-P15	301-011-03S-P15	301-011-01L-P15
93014-12-XXZ	301-012-01S-P15	301-012-03S-P15	301-012-01L-P15
93014-13-XXZ	301-013-01S-P15	301-013-03S-P15	301-013-01L-P15
93014-14-XXZ	301-014-01S-P15	301-014-03S-P15	301-014-01L-P15
93014-15-XXZ	301-015-01S-P15	301-015-03S-P15	301-015-01L-P15
93014-16-XXZ	301-016-01S-P15	301-016-03S-P15	301-016-01L-P15
93014-17-XXZ	301-017-01S-P15	301-017-03S-P15	301-017-01L-P15
93014-18-XXZ	301-018-01S-P15	301-018-03S-P15	301-018-01L-P15
93014-19-XXZ	301-019-01S-P15	301-019-03S-P15	301-019-01L-P15
93014-20-XXZ	301-020-01S-P15	301-020-03S-P15	301-020-01L-P15
93014-21-XXZ	301-021-01S-P15	301-021-03S-P15	301-021-01L-P15
93014-22-XXZ	301-022-01S-P15	301-022-03S-P15	301-022-01L-P15
93014-23-XXZ	301-023-01S-P15	301-023-03S-P15	301-023-01L-P15
93014-24-XXZ	301-024-01S-P15	301-024-03S-P15	301-024-01L-P15
93014-25-XXZ	301-025-01S-P15	301-025-03S-P15	301-025-01L-P15
93014-26-XXZ	301-026-01S-P15	301-026-03S-P15	301-026-01L-P15
93014-27-XXZ	301-027-01S-P15	301-027-03S-P15	301-027-01L-P15
93014-28-XXZ	301-028-01S-P15	301-028-03S-P15	301-028-01L-P15
93014-29-XXZ	301-029-01S-P15	301-029-03S-P15	301-029-01L-P15
93014-30-XXZ	301-030-01S-P15	301-030-03S-P15	301-030-01L-P15
93014-31-XXZ	301-031-01S-P15	301-031-03S-P15	301-031-01L-P15
93014-32-XXZ	301-032-01S-P15	301-032-03S-P15	301-032-01L-P15
93014-33-XXZ	301-033-01S-P15	301-033-03S-P15	301-033-01L-P15
93014-34-XXZ	301-034-01S-P15	301-034-03S-P15	301-034-01L-P15
93014-35-XXZ	---	---	--
93014-36-XXZ	---	---	--
93014-37-XXZ	---	---	--

See notes at end of table.

<b>DEFENSE SUPPLY CENTER, COLUMBUS</b> <b>COLUMBUS, OH 43216-5000</b>	SIZE <b>A</b>	CAGE CODE <b>037Z3</b>	DWG NO. <b>93014</b>
		REV <b>A</b>	PAGE <b>7</b>

DSCC drawing PIN	Vendor PIN <u>1/</u>	
	Vendor CAGE OEBT2 <u>2/</u>	Vendor CAGE 55322
	PIN style (see table II) Dash 06	PIN style (see table II) Dash 01 through 06
	93014-01-XXZ	---
93014-02-XXZ	301-002-03L-P15	SS-102-X-X-N
93014-03-XXZ	301-003-03L-P15	SS-103-X-X-N
93014-04-XXZ	301-004-03L-P15	SS-104-X-X-N
93014-05-XXZ	301-005-03L-P15	SS-105-X-X-N
93014-06-XXZ	301-006-03L-P15	SS-106-X-X-N
93014-07-XXZ	301-007-03L-P15	SS-107-X-X-N
93014-08-XXZ	301-008-03L-P15	SS-108-X-X-N
93014-09-XXZ	301-009-03L-P15	SS-109-X-X-N
93014-10-XXZ	301-010-03L-P15	SS-110-X-X-N
93014-11-XXZ	301-011-03L-P15	SS-111-X-X-N
93014-12-XXZ	301-012-03L-P15	SS-112-X-X-N
93014-13-XXZ	301-013-03L-P15	SS-113-X-X-N
93014-14-XXZ	301-014-03L-P15	SS-114-X-X-N
93014-15-XXZ	301-015-03L-P15	SS-115-X-X-N
93014-16-XXZ	301-016-03L-P15	SS-116-X-X-N
93014-17-XXZ	301-017-03L-P15	SS-117-X-X-N
93014-18-XXZ	301-018-03L-P15	SS-118-X-X-N
93014-19-XXZ	301-019-03L-P15	SS-119-X-X-N
93014-20-XXZ	301-020-03L-P15	SS-120-X-X-N
93014-21-XXZ	301-021-03L-P15	SS-121-X-X-N
93014-22-XXZ	301-022-03L-P15	SS-122-X-X-N
93014-23-XXZ	301-023-03L-P15	SS-123-X-X-N
93014-24-XXZ	301-024-03L-P15	SS-124-X-X-N
93014-25-XXZ	301-025-03L-P15	SS-125-X-X-N
93014-26-XXZ	301-026-03L-P15	SS-126-X-X-N
93014-27-XXZ	301-027-03L-P15	SS-127-X-X-N
93014-28-XXZ	301-028-03L-P15	SS-128-X-X-N
93014-29-XXZ	301-029-03L-P15	SS-129-X-X-N
93014-30-XXZ	301-030-03L-P15	SS-130-X-X-N
93014-31-XXZ	301-031-03L-P15	SS-131-X-X-N
93014-32-XXZ	301-032-03L-P15	SS-132-X-X-N
93014-33-XXZ	301-033-03L-P15	SS-133-X-X-N
93014-34-XXZ	301-034-03L-P15	SS-134-X-X-N
93014-35-XXZ	---	SS-135-X-X-N
93014-36-XXZ	---	SS-136-X-X-N
93014-37-XXZ	---	SS-137-X-X-N

1/ Caution. Do not use this number for item acquisition. Items acquired to this number may not satisfy the performance requirements of this drawing.  
2/ Vendor PIN covers "Blank" and "N" temperature ranges only.

DEFENSE SUPPLY CENTER, COLUMBUS COLUMBUS, OH 43216-5000	SIZE	CAGE CODE	DWG NO.
	<b>A</b>	<b>037Z3</b>	<b>93014</b>
		REV <b>A</b>	PAGE <b>8</b>



Vender CAGE  
number

OEBT2

55322

Vendor name  
and address

Andon Electronics Corporation  
4 Court Drive  
Lincoln, RI 02865-4203

Samtec, Inc.  
520 Park East Blvd.  
New Albany, IN 47150-7251

**DEFENSE SUPPLY CENTER, COLUMBUS  
COLUMBUS, OH 43216-5000**

SIZE

**A**

CAGE CODE

**037Z3**

REV

**A**

DWG NO.

**93014**

PAGE

**9**