

REVISIONS			
LT	DESCRIPTION	DATE	APPROVED
A	Add Source of Supply	23 February 1998	David E. Moore
B	Changes in accordance with NOR 5950-R001-98. Added an additional Source of Supply.	15 May 2003	Kendall Cottongim
C	Change Source of Supply Address. Update drawing to current format and update referenced documents.	18 April 2006	Michael Radecki

CURRENT DESIGN ACTIVITY CAGE CODE 037Z3  
 DEFENSE LOGISTICS AGENCY  
 DEFENSE SUPPLY CENTER COLUMBUS  
 COLUMBUS, OHIO 43216-5000

THE ORIGINAL FIRST PAGE OF THIS DRAWING HAS BEEN REPLACED.

Prepared in accordance with ASME Y14.100

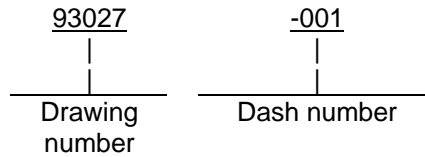
Selected item drawing

REV STATUS OF PAGES	REV	C	C	C	C	C	C	C	C	C	C							
	PAGES	1	2	3	4	5	6	7	8	9								

<b>PMIC N/A</b>	<b>PREPARED BY</b> Ken R. Beymer		<b>DESIGN ACTIVITY</b> DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OH 45444-5000															
Original date of drawing  27 Nov 1993	<b>CHECKED BY</b> Tony J. Westphal		<b>TITLE</b> INDUCTOR, SURFACE MOUNT, LEADLESS															
	<b>APPROVED BY</b> Bud Bouter																	
	<b>SIZE</b> A	<b>CODE IDENT. NO.</b> 14933	<b>DWG NO.</b>  <b>93027</b>															
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## SCOPE

- 1.1 Scope. This drawing describes the requirements for a surface mount inductor.
- 1.2 Part or Identifying Number (PIN). The complete PIN is as shown in the following example:



## 2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section Does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents in sections 3 and 4 of this specification, whether or not they are listed.

### 2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation ([see 6.2](#)).

## SPECIFICATIONS

### DEPARTMENT OF DEFENSE

- MIL-DTL-31000 - Technical Data Packages
- MIL-PRF-27 - Transformers and Inductors (Audio, Power and High-Power Pulse), General Specification

## STANDARDS

### DEPARTMENT OF DEFENSE

- MIL-STD-130 - Identification Marking of U.S. Military Property.
- MIL-STD-202 - Test methods for Electronic and electrical Component Parts.
- MIL-STD-1276 - Leads for Electronic Component Parts.

(Copies of these documents are available online at <http://assist.daps.dla.mil/quicksearch/> or [www.assist.daps.dla.mil](http://www.assist.daps.dla.mil) or from the Standardization Documents order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

<b>DEFENSE ELECTRONICS SUPPLY CENTER</b> <b>DAYTON, OHIO</b>	<b>SIZE</b> <b>A</b>	<b>CODE IDENT NO.</b> <b>14933</b>	<b>DWG NO.</b> <b>93027</b>
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### 3. REQUIREMENTS

3.1 Drawing precedence. This drawing takes precedence over documents referred to herein and shall be interpreted in accordance with [MIL-DTL-31000](#).

3.2 Design and construction.

3.2.1 Dimensions and configurations: Dimensions and configuration shall be as specified in [figure 1](#) and in [table I](#).

3.2.2 Case. The case shall be molded using fiber filled epoxy.

3.2.3 Terminals. The terminals shall be tin plated phosphor bronze.

3.2.4 Altitude. 70,000 feet.

3.2.5 Operating temperature range. The operating temperature range shall be -55°C to +125°C.

3.3 Temperature rise. The temperature rise shall be 35°C over ambient temperature of 90°C.

3.4 Marking location. Marking shall be on top of the case. Marking shall be in accordance with [1.2](#) herein. Also, the similar vendor part may also be marked in accordance with [6.5](#) herein.

3.5 Electrical ratings.

3.5.1 Inductance. Inductance shall be as specified in [table I](#).

3.6 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

3.7 Certificate of compliance. A certificate of compliance shall be required from manufacturers requesting to be a suggested source of supply.

3.8 Workmanship. The inductors shall be processed in such a manner as to be uniform and free of defects that will affect life, serviceability or function.

### 4. VERIFICATION

4.1 Qualification inspection. Qualification for this part is not required.

4.2 Conformance inspection.

4.2.1 Inspection of product for delivery. Inspection of product for delivery shall consist of group A and group B inspections of [MIL-PRF-27](#).

4.2.2 Group A inspection. Group A inspection shall be in accordance with [MIL-PRF-27](#).

4.2.3 Group B inspection. Group B inspection shall be in accordance with [MIL-PRF-27](#).

4.2.4 Certification. The acquiring activity, at its discretion, may accept a certificate of compliance with group A and group B requirements in lieu of performing group A and group B tests ([see 6.2](#)).

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5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Departments or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. Devices conforming to this drawing are intended for use when military specifications do not exist and qualified military devices that perform the required function are not available for OEM application.

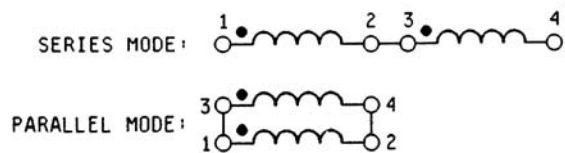
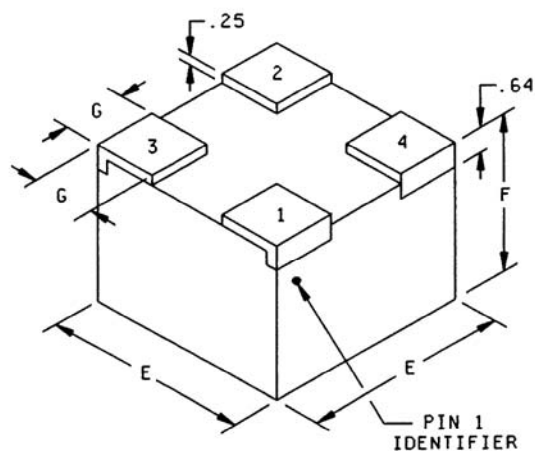
6.2 Ordering data. The contract or purchase order should specify the following:

- a. Complete PIN (see 1.2)
- b. Requirements for delivery of one copy of the conformance inspection data with each shipment of parts by the manufacturer (when applicable, see 4.2.4).
- c. Whether the inductor should be taped and reeled for automatic insertion equipment.
- d. Requirements for notification of change of product to acquiring activity, if applicable.
- e. Requirements for packaging and packing.
- f. Whether the inductor should be taped and reeled for automatic insertion equipment.

6.3 Replaceability. Devices covered by this drawing will replace the same commercial device covered by a contractor-prepared specification or drawing.

6.4 Users of record. Coordination of this document for future revisions is coordinated only with the suggested source(s) of supply and the users of record of this document. Requests to be added as a recorded user of this drawing may be achieved online at [Transformer@dla.mil](mailto:Transformer@dla.mil), or if in writing to: Defense Supply Center, Columbus, ATTN: DSCC-VAT, Post Office Box 3990, Columbus, OH 43218-3990 or by telephone (614) 692-0557 or DSN 850-0557.

<b>DEFENSE ELECTRONICS SUPPLY CENTER DAYTON, OHIO</b>	<b>SIZE A</b>	<b>CODE IDENT NO. 14933</b>	<b>DWG NO. 93027</b>
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Size	E <sub>max</sub> Millimeters (inches)	F <sub>max</sub> Millimeters (inches)	G <sub>1/</sub> Millimeters (inches)
A	6.60 (.260)	5.84 (.230)	2.16 (.085)
B	10.41 (.410)	5.84 (.230)	3.43 (.135)
C	10.41 (.410)	7.87 (.310)	3.43 (.135)
D	13.59 (.535)	7.87 (.310)	5.08 (.200)

1/ The tolerance for all dimensions shall be  $\pm 0.25$  mm (.010 inch).

mm	Inches
0.25	.010
0.64	.025

**NOTES:**

1. Dimensions are in millimeters.
2. Inch-pound equivalents are given for general information only.
3. The US Government preferred system of measurement is the metric SI system. However, since this item was originally designed using inch-pound units of measurement, in the event of conflict between the metric and inch-pound units, the inch-pound units shall take precedence.

FIGURE 1. Dimensions and configurations.

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TABLE I. Electrical characteristics.

PIN 93027-	Series			Parallel			Configur- ation	Power rating (mW)
	Inductance $\pm 10$ percent (mH)	Rated dc current (mA)	DC resistance (max)	Inductance $\pm 10$ percent (mH)	Rated dc current (mA)	DC resistance (max)		
001	0.100	300	1.60	0.025	600	0.400	A	125
002	0.100	600	0.96	0.025	1200	0.240	B	250
003	0.100	780	0.37	0.025	1560	0.093	C	300
004	0.100	1350	0.21	0.025	2700	0.053	D	450
005	0.250	200	3.11	0.062	400	0.778	A	125
006	0.250	400	1.98	0.062	800	0.495	B	250
007	0.250	530	0.82	0.062	1060	0.205	C	300
008	0.250	930	0.41	0.062	1860	0.103	D	450
009	0.500	150	6.14	0.125	300	1.535	A	125
010	0.500	300	3.35	0.125	600	0.838	B	250
011	0.500	380	1.62	0.125	760	0.405	C	300
012	0.500	660	0.82	0.125	1320	0.205	D	450
013	0.750	120	9.45	0.187	240	2.363	A	125
014	0.750	250	5.20	0.187	500	1.300	B	250
015	0.750	310	2.50	0.187	620	0.625	C	300
016	0.750	540	1.25	0.187	1080	0.313	D	450
017	1.000	95	12.85	0.250	190	3.213	A	125
018	1.000	200	6.90	0.250	400	1.725	B	250
019	1.000	270	3.37	0.250	540	0.843	C	300
020	1.000	570	1.87	0.250	940	0.468	D	450
021	2.000	75	25.60	0.500	150	36.400	A	125
022	2.000	150	12.20	0.500	300	3.050	B	250
023	2.000	190	6.75	0.500	380	1.690	C	300
024	2.000	330	3.62	0.500	660	0.910	D	450
025	3.000	60	38.40	0.750	120	9.600	A	125
026	3.000	120	18.30	0.750	240	4.580	B	250
027	3.000	160	10.12	0.750	320	2.530	C	300
028	3.000	270	5.50	0.750	540	1.380	D	450
029	5.000	45	64.00	1.250	90	16.000	A	125
030	5.000	90	30.40	1.250	180	7.600	B	250
031	5.000	120	16.87	1.250	240	4.220	C	300
032	5.000	210	9.12	1.250	420	2.280	D	450
033	7.500	30	96.00	1.875	60	24.000	A	125
034	7.500	70	46.00	1.875	140	11.500	B	250
035	7.500	100	25.37	1.875	200	6.350	C	300
036	7.500	170	13.75	1.875	340	3.440	D	450
037	10.000	20	128.00	2.500	40	32.000	A	125
038	10.000	50	61.00	2.500	100	15.250	B	250
039	10.000	80	33.75	2.500	160	8.440	C	300
040	10.000	140	18.25	2.500	280	4.570	D	450

**DEFENSE ELECTRONICS SUPPLY CENTER**  
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6.5 Suggested sources of supply. Suggested sources of supply are listed herein. Additional sources will be added as they become available. Assistance in the use of this drawing may be obtained online at [Transformer@dla.mil](mailto:Transformer@dla.mil), or by contacting Defense Supply Center, Columbus, ATTN: DSCC-VAT, Post Office Box 3990, Columbus, OH 43218-3990 or by telephone (614) 692-0557 or DSN 850-0557.

DSCC drawing PIN 93027-	Vendors similar <u>1/</u>	Vendor CAGE	Vendor's name and address
001	60001	03550	Vanguard Electronics Company, Inc. 7412 Prince Drive Huntington Beach, CA 92647-4553
002	60002		
003	60003		
004	60004		
005	60005		
006	60006		
007	60007		
008	60008		
009	60009		
010	60010		
011	60011		
012	60012		
013	60013		
014	60014		
015	60015		
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026	60026		
027	60027		
028	60028		
029	60029		
030	60030		
031	60031		
032	60032		
033	60033		
034	60034		
035	60035		
036	60036		
037	60037		
038	60038		
039	60039		
040	60040		

1/ Parts must be purchased to the DSCC PIN to assure that all performance requirements and tests are met.

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DSCC drawing PIN 93027-	Vendors similar <u>1/</u>	Vendor CAGE	Vendor's name and address
001	93001	07UB6	Advanced Chip Magnetics 5333 West Washington Blvd. Los Angeles, CA 90016-1191
002	93002		
003	93003		
004	93004		
005	93005		
006	93006		
007	93007		
008	93008		
009	93009		
010	93010		
011	93011		
012	93012		
013	93013		
014	93014		
015	93015		
016	93016		
017	93017		
018	93018		
019	93019		
020	93020		
021	93021		
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027	93027		
028	93028		
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031	93031		
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039	93039		
040	93040		

1/ Parts must be purchased to the DSCC PIN to assure that all performance requirements and tests are met.

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DSCC drawing PIN 93027-	Vendors similar <u>1/</u>	Vendor CAGE	Vendor's name and address
001	5T4767-001	04620	Rayco Electronics 1220 W. 130 <sup>TH</sup> Street Gardena, CA 90247
002	5T4767-002		
003	5T4767-003		
004	5T4767-004		
005	5T4767-005		
006	5T4767-006		
007	5T4767-007		
008	5T4767-008		
009	5T4767-009		
010	5T4767-010		
011	5T4767-011		
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035	5T4767-035		
036	5T4767-036		
037	5T4767-037		
038	5T4767-038		
039	5T4767-039		
040	5T4767-040		

1/ Parts must be purchased to the DSCC PIN to assure that all performance requirements and tests are met.

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