

| REVISIONS |   |                 |                      |
|-----------|---|-----------------|----------------------|
| LTR       | DESCRIPTION   | DATE            | APPROVED             |
| A         | Added suggested sources of supply.  | 11 May 88       | D. Moore             |
| B         | Deleted and added suggested sources of supply. Editorial changes throughout.  | 8 Oct 92        | D. Moore             |
| C         | Added .082 $\mu$ F in case size F. Updated manufacturers PIN. Editorial changes throughout.                                   | 21 Jul 93       | D. Moore             |
| D         | Changes to paragraphs 3.2.2, 3.2.6, and 6.1. Added suggested source of supply. Editorial changes throughout.                  | 23 Feb 94       | D. Moore             |
| E         | Changes in accordance with NOR 5910-R006-96   | 23 May 96       | A. Ernst             |
| F         | Revised sources of supply, added alternate marking method, made editorial changes, and converted references to MIL-PRF-49467. | 5 April 99      | J. Crum              |
| G         | Moved solderability testing from group A to group B. Updated suggested sources of supply.                                     | 10 April 00     | Kendall A. Cottongim |
| H         | Removed suggested source of supply. Added note 4 to figure 1. Added capacitor tolerance note to 3.2.9.                        | 16 January 01   | Kendall A. Cottongim |
| J         | Added suggested source of supply. Changed Johanson Dielectrics CAGE code.   | 12 September 01 | Kendall A. Cottongim |
| K         | Updated name and address of vendor C.   | 4 November 02   | Kendall A. Cottongim |
| L         | Added Johanson Dielectrics as a suggested source of supply.   | 18 August 2004  | Kendall A. Cottongim |
| M         | Added CalRamic Technologies as a suggested source of supply.  | 19 April 2007   | Michael A. Radecki   |

CURRENT DESIGN ACTIVITY CAGE CODE 037Z3  
DEFENSE LOGISTICS AGENCY  
DEFENSE SUPPLY CENTER COLUMBUS  
COLUMBUS, OHIO 43218-3990

Prepared in accordance with [ASME Y14.100](#)

Selected item drawing

| REV STATUS OF PAGES                          | REV                              | M                        | M | M | M | M | M                       | M   | M | M |  |  |  |  |  |  |  |
|--|----------------------------------|--------------------------|---|---|---|---|-------------------------|---|---|---|--|--|--|--|--|--|--|
|  | PAGES                            | 1                        | 2 | 3 | 4 | 5 | 6                       | 7   | 8 | 9 |  |  |  |  |  |  |  |
| PMIC N/A                                     | PREPARED BY<br>ROBERT E. GRILLOT |                          |   |   |   |   |                         | DEFENSE ELECTRONIC SUPPLY CENTER<br>DAYTON, OH                          |   |   |  |  |  |  |  |  |  |
| Original date of drawing<br><br>23 June 1987 | CHECKED BY<br>HERALDINE JOHNSON  |                          |   |   |   |   |                         | TITLE<br>CAPACITORS, CERAMIC, MULTILAYER, HIGH VOLTAGE, X7R, 3,000 V DC |   |   |  |  |  |  |  |  |  |
|  | APPROVED BY<br>DAVID E. MOORE    |                          |   |   |   |   |                         |   |   |   |  |  |  |  |  |  |  |
|  | SIZE<br>A                        | CODE IDENT. NO.<br>14933 |   |   |   |   | DWG NO.<br><b>87047</b> |   |   |   |  |  |  |  |  |  |  |
|  | REV M                            |                          |   |   |   |   |                         | PAGE 1 OF 9   |   |   |  |  |  |  |  |  |  |

1. SCOPE

1.1 Scope. This drawing and [MIL-PRF-49467](#) describe the complete requirements for high voltage multilayer ceramic capacitors.

1.2 Part or Identifying Number (PIN). The complete PIN shall be as follows:



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 cited 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 cited in the solicitation or contract.

DEPARTMENT OF DEFENSE SPECIFICATIONS

[MIL-PRF-49467](#) - Capacitor, Fixed, Ceramic, Multilayer, High Voltage (General Purpose), Established Reliability, General Specification for.

DEPARTMENT OF DEFENSE STANDARDS

[MIL-STD-202](#) - Test Methods Standard Electronics and Electrical Component Parts.  
[MIL-STD-1285](#) - Marking of Electrical and Electronic Parts.

(Copies of these documents are available online at <http://assist.daps.dla.mil/quicksearch/> or <http://www.assist.daps.dla.mil/> or from the Standardization Document 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.

3. REQUIREMENTS

3.1 Interface and physical dimensions. The interface and physical dimensions shall be as specified in [MIL-PRF-49467](#) and herein (see [figure 1](#)).

3.1.1 Leads. Leads shall be solder coated. Tin-lead (Sn-Pb) finishes are acceptable provided that the minimum lead content is 3 percent.

3.1.2 Case. Epoxy, conformally coated.

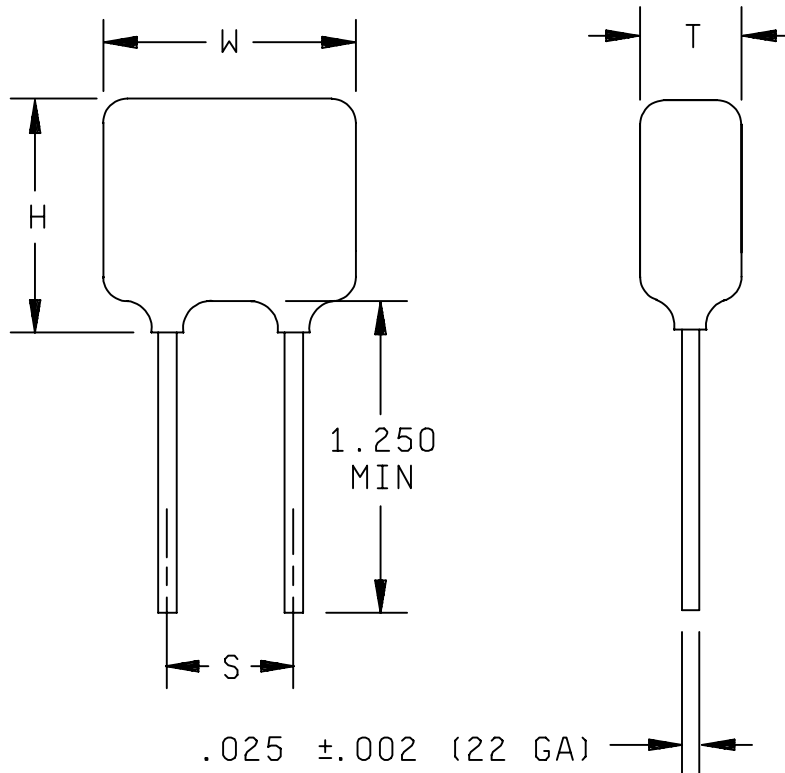
3.1.3 Operating temperature range. The operating temperature range shall be -55°C to +125°C.

3.2 Electrical characteristics.

3.2.1 Rated voltage. The rated voltage shall be 3,000 volts dc.

3.2.2 Dielectric type. X7R.

|  |          |                |              |
|--|----------|----------------|--------------|
| <b>DEFENSE ELECTRONICS SUPPLY CENTER</b> | SIZE     | CODE IDENT NO. | DWG NO.      |
| <b>DAYTON, OHIO</b>                      | <b>A</b> | <b>14933</b>   | <b>87047</b> |
|  |          | REV M          | PAGE 2       |



| Case code | Sizes (max.) |               |                  | Lead spacing<br>$\pm .030$<br>(S) |
|-----------|--------------|---------------|------------------|-----------------------------------|
|           | Width<br>(W) | Height<br>(H) | Thickness<br>(T) |                                   |
| A         | .320         | .280          | .250             | .220                              |
| B         | .370         | .300          | .250             | .275                              |
| C         | .470         | .400          | .270             | .375                              |
| D         | .570         | .500          | .270             | .475                              |
| E         | .670         | .600          | .270             | .575                              |
| F         | .770         | .720          | .270             | .675                              |
| G         | 1.25         | .600          | .270             | 1.10                              |
| H         | 1.45         | .720          | .270             | 1.30                              |

| Inches | mm    | Inches | mm    |
|--------|-------|--------|-------|
| .002   | 0.05  | .475   | 12.07 |
| .025   | 0.64  | .500   | 12.70 |
| .030   | 0.76  | .570   | 14.48 |
| .220   | 5.59  | .575   | 14.61 |
| .250   | 6.35  | .600   | 15.24 |
| .270   | 6.86  | .670   | 17.02 |
| .275   | 6.99  | .675   | 17.15 |
| .280   | 7.11  | .720   | 18.29 |
| .300   | 7.62  | .770   | 19.56 |
| .320   | 8.13  | 1.10   | 27.94 |
| .370   | 9.40  | 1.25   | 31.75 |
| .375   | 9.53  | 1.30   | 33.02 |
| .400   | 10.16 | 1.45   | 36.83 |
| .470   | 11.94 |        |       |

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. H dimension includes meniscus.
4. S dimension shall be maintained from chip body to end of leads.

FIGURE 1. Case dimensions and configuration.

|   |                         |                                       |                                |
|---|-------------------------|---------------------------------------|--------------------------------|
| <b>DEFENSE ELECTRONICS SUPPLY CENTER</b><br><b>DAYTON, OHIO</b> | <b>SIZE</b><br><b>A</b> | <b>CODE IDENT NO.</b><br><b>14933</b> | <b>DWG NO.</b><br><b>87047</b> |
|   |                         | <b>REV M</b>                          | <b>PAGE 3</b>                  |

- 3.2.3 Temperature coefficient.  $\pm 15$  percent. (For MIL-PRF-49467 group B voltage temperature limits use step a through step d only.)
- 3.2.4 Capacitance. See table I. Measured in accordance with method 305 of MIL-STD-202, 1 kHz at 1.0 V rms at +25°C.
- 3.2.5 Dissipation factor (+25°C). 2.5 percent maximum (measured under the same conditions as capacitance).
- 3.2.6 Insulation resistance. Measured in accordance with method 302 of MIL-STD-202. At +25°C, 500 V dc: 100,000 megohms or 1,000 megohm-microfarad, whichever is less. At +125°C, 500 V dc: 10,000 megohms or 100 megohms microfarad, whichever is less.
- 3.2.7 Dielectric withstanding voltage. 1.2 times rated voltage.
- 3.2.8 Aging rate. -2.0 percent maximum per decade-hour.
- 3.2.9 Capacitance tolerance. K =  $\pm 10$  percent, M =  $\pm 20$  percent. K tolerance parts may be substituted for M tolerance parts, with procuring activity approval.
- 3.3 Solderability of terminals. In accordance with MIL-PRF-49467.
- 3.4 Vibration. In accordance with MIL-PRF-49467.
- 3.5 Shock. In accordance with MIL-PRF-49467.
- 3.6 Immersion cycling. In accordance with MIL-PRF-49467.
- 3.7 Moisture resistance. In accordance with MIL-PRF-49467.
- 3.8 Life. One hundred percent of rated voltage applied at +125°C for 1,000 hours. Resistors with a high value such as 1 megohm may be used in series with each part under test in lieu of fuses.
- 3.9 Thermal shock. Method 107, MIL-STD-202, test condition B except low temperature is -55°C.
- 3.10 Voltage conditioning. In accordance with MIL-PRF-49467, 100 percent of rated voltage. Resistors with a high value such as 1 megohm may be used in series with each part under test in lieu of fuses.
- 3.11 Terminal strength. In accordance with MIL-PRF-49467.
- 3.12 Marking. Marking shall be in accordance with MIL-STD-1285 except the capacitors shall be marked with the PIN as specified in 1.2, the manufacturer's name or Commercial and Government Entity (CAGE) code, and date lot code as a minimum. Case codes A and B (at the option of the manufacturer) may be marked as indicated below with full marking on the package.

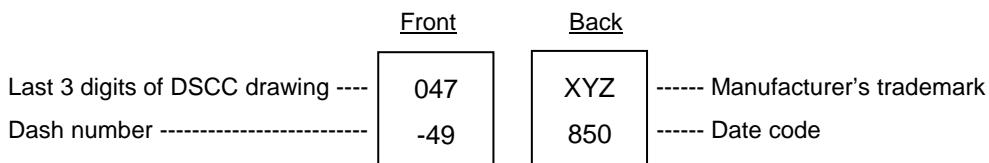


FIGURE 2. Alternate marking method for A and B case codes.

- 3.13 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.
- 3.14 Certificate of compliance. A certificate of compliance shall be required from manufacturers requesting to be a suggested source of supply.
- 3.15 Workmanship. Capacitors shall be uniform in quality and free from any defects that will affect life, serviceability, or appearance.

|  |             |                       |                |
|--|-------------|-----------------------|----------------|
| <b>DEFENSE ELECTRONICS SUPPLY CENTER</b> | <b>SIZE</b> | <b>CODE IDENT NO.</b> | <b>DWG NO.</b> |
| <b>DAYTON, OHIO</b>                      | <b>A</b>    | <b>14933</b>          | <b>87047</b>   |
|  |             | <b>REV M</b>          | <b>PAGE 4</b>  |

TABLE I. Electrical characteristics

| DSCC drawing 87047- | Capacitance | Capacitance tolerance | Case code | DSCC drawing 87047- | Capacitance  | Capacitance tolerance | Case code |
|---------------------|-------------|-----------------------|-----------|---------------------|--------------|-----------------------|-----------|
| 01                  | 100 pF      | K                     | A         | 39                  | 3900 pF      | K                     | B         |
| 02                  | 100 pF      | M                     | A         | 40                  | 3900 pF      | M                     | B         |
| 03                  | 120 pF      | K                     | A         | 41                  | 4700 pF      | K                     | B         |
| 04                  | 120 pF      | M                     | A         | 42                  | 4700 pF      | M                     | B         |
| 05                  | 150 pF      | K                     | A         | 43                  | 5600 pF      | K                     | C         |
| 06                  | 150 pF      | M                     | A         | 44                  | 5600 pF      | M                     | C         |
| 07                  | 180 pF      | K                     | A         | 45                  | 6800 pF      | K                     | C         |
| 08                  | 180 pF      | M                     | A         | 46                  | 6800 pF      | M                     | C         |
| 09                  | 220 pF      | K                     | A         | 47                  | 8200 pF      | K                     | C         |
| 10                  | 220 pF      | M                     | A         | 48                  | 8200 pF      | M                     | C         |
| 11                  | 270 pF      | K                     | A         | 49                  | .01 $\mu$ F  | K                     | C         |
| 12                  | 270 pF      | M                     | A         | 50                  | .01 $\mu$ F  | M                     | C         |
| 13                  | 330 pF      | K                     | A         | 51                  | .012 $\mu$ F | K                     | C         |
| 14                  | 330 pF      | M                     | A         | 52                  | .012 $\mu$ F | M                     | C         |
| 15                  | 390 pF      | K                     | A         | 53                  | .015 $\mu$ F | K                     | C         |
| 16                  | 390 pF      | M                     | A         | 54                  | .015 $\mu$ F | M                     | C         |
| 17                  | 470 pF      | K                     | A         | 55                  | .018 $\mu$ F | K                     | D         |
| 18                  | 470 pF      | M                     | A         | 56                  | .018 $\mu$ F | M                     | D         |
| 19                  | 560 pF      | K                     | A         | 57                  | .022 $\mu$ F | K                     | D         |
| 20                  | 560 pF      | M                     | A         | 58                  | .022 $\mu$ F | M                     | D         |
| 21                  | 680 pF      | K                     | A         | 59                  | .027 $\mu$ F | K                     | D         |
| 22                  | 680 pF      | M                     | A         | 60                  | .027 $\mu$ F | M                     | D         |
| 23                  | 820 pF      | K                     | A         | 61                  | .033 $\mu$ F | K                     | D         |
| 24                  | 820 pF      | M                     | A         | 62                  | .033 $\mu$ F | M                     | D         |
| 25                  | 1000 pF     | K                     | A         | 63                  | .039 $\mu$ F | K                     | E         |
| 26                  | 1000 pF     | M                     | A         | 64                  | .039 $\mu$ F | M                     | E         |
| 27                  | 1200 pF     | K                     | A         | 65                  | .047 $\mu$ F | K                     | F         |
| 28                  | 1200 pF     | M                     | A         | 66                  | .047 $\mu$ F | M                     | F         |
| 29                  | 1500 pF     | K                     | A         | 67                  | .056 $\mu$ F | K                     | F         |
| 30                  | 1500 pF     | M                     | A         | 68                  | .056 $\mu$ F | M                     | F         |
| 31                  | 1800 pF     | K                     | A         | 69                  | .068 $\mu$ F | K                     | G         |
| 32                  | 1800 pF     | M                     | A         | 70                  | .068 $\mu$ F | M                     | G         |
| 33                  | 2200 pF     | K                     | A         | 71                  | .082 $\mu$ F | K                     | H         |
| 34                  | 2200 pF     | M                     | A         | 72                  | .082 $\mu$ F | M                     | H         |
| 35                  | 2700 pF     | K                     | A         | 73                  | .10 $\mu$ F  | K                     | H         |
| 36                  | 2700 pF     | M                     | A         | 74                  | .10 $\mu$ F  | M                     | H         |
| 37                  | 3300 pF     | K                     | A         | 75                  | .082 $\mu$ F | K                     | F         |
| 38                  | 3300 pF     | M                     | A         |                     |              |                       |           |

|  |             |                       |                |
|--|-------------|-----------------------|----------------|
| <b>DEFENSE ELECTRONICS SUPPLY CENTER</b> | <b>SIZE</b> | <b>CODE IDENT NO.</b> | <b>DWG NO.</b> |
| <b>DAYTON, OHIO</b>                      | <b>A</b>    | <b>14933</b>          | <b>87047</b>   |
|  |             | <b>REV M</b>          | <b>PAGE 5</b>  |

#### 4. VERIFICATION

4.1 Sampling and inspection. Qualification inspection is not required.

4.2 Conformance inspection.

4.2.1 Inspection of product for delivery. Inspection of product for delivery shall consist of all tests specified in group A and group B inspections of [MIL-PRF-49467](#), provided they are listed in this drawing. PPM testing and calculation is not applicable. Solderability testing shall be performed as a separate subgroup of group B inspection with a sample size of 3 units and 0 defectives permitted.

4.2.2 Certification. The procuring activity, at its discretion, may accept a certificate of compliance with group B requirements in lieu of performing group B tests (see 6.2d).

#### 5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system commands. Packaging data retrieval is available from the managing Military Department's 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 which may be helpful, but is not mandatory.)

6.1 Intended use. Capacitors conforming to this drawing are intended for use when military specifications do not exist and qualified military devices that will perform the required function are not available for original equipment manufacturer application. This drawing is intended exclusively to prevent the proliferation of unnecessary duplicate specifications, drawings, and stock catalog listings. When a military specification exists and the product covered by this drawing has been qualified for listing, this drawing becomes obsolete and will not be used for new design.

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 or certificate of compliance that parts have passed conformance inspection with each shipment of parts by the manufacturer.
- c. Requirements for packaging and packing.
- d. Whether the manufacturer performs the group B tests or provides certification of compliance with group B requirements.
- e. Requirements for notification of change of product to procuring activity, if applicable.

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

6.4 Users of record. Coordination of this document for future revisions are coordinated only with the suggested sources of supply and the users of record of this document. Requests to be added as a recorded user of this drawing should be in writing to: Defense Supply Center, Columbus, ATTN: DSCC/VAT, Post Office Box 3990, Columbus, OH 43218-3990 or e-mailed to [capacitorfilter@dsc.dla.mil](mailto:capacitorfilter@dsc.dla.mil) also by telephone (614) 692-4709 or DSN 850-4709.

6.5 Suggested sources of supply. Suggested sources of supply are listed herein. Additional sources will be added as they become available. For assistance in the use of this drawing, contact Defense Supply Center, Columbus, ATTN: DSCC-VAT, Post Office Box 3990, Columbus, OH 43218-3990 or e-mailed to [capacitorfilter@dsc.dla.mil](mailto:capacitorfilter@dsc.dla.mil) also by telephone (614) 692-4709 or DSN 850-4709.

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|---|-------------------------|---------------------------------------|--------------------------------|
| <b>DEFENSE ELECTRONICS SUPPLY CENTER</b><br><b>DAYTON, OHIO</b> | <b>SIZE</b><br><b>A</b> | <b>CODE IDENT NO.</b><br><b>14933</b> | <b>DWG NO.</b><br><b>87047</b> |
|   |                         | <b>REV M</b>                          | <b>PAGE 6</b>                  |

|  |  |              |                       |                |
|--|--|--------------|-----------------------|----------------|
| <b>DEFENSE ELECTRONICS SUPPLY CENTER</b> |  | <b>SIZE</b>  | <b>CODE IDENT NO.</b> | <b>DWG NO.</b> |
| <b>DAYTON, OHIO</b>                      |  | <b>A</b>     | <b>14933</b>          | <b>87047</b>   |
|  |  | <b>REV M</b> |                       | <b>PAGE</b>    |
|  |  |              |                       | <b>7</b>       |

| <u>1/</u> DSCC drawing PIN 87047- | Vendor A similar vendor type | Vendor B similar vendor type | Vendor C similar vendor type | Vendor D similar vendor type | Vendor E similar vendor type | Vendor F similar vendor type | Vendor G similar vendor type | Vendor H similar vendor type |
|-----------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| 01                                | SV02HC101KHA                 | 2020CX101KA302               | 302H46W101KQ3H               | UTC4126-01                   | 126975-01                    | PCI1558-01                   | 2020N101K302LEXH             | 30HV02B101KM                 |
| 02                                | SV02HC101MHA                 | 2020CX101MA302               | 302H46W101MQ3H               | UTC4126-02                   | 126975-02                    | PCI1558-02                   | 2020N101M302LEXH             | 30HV02B101MM                 |
| 03                                | SV02HC121KHA                 | 2020CX121KA302               | 302H46W121KQ3H               | UTC4126-03                   | 126975-03                    | PCI1558-03                   | 2020N121K302LEXH             | 30HV02B121KM                 |
| 04                                | SV02HC121MHA                 | 2020CX121MA302               | 302H46W121MQ3H               | UTC4126-04                   | 126975-04                    | PCI1558-04                   | 2020N121M302LEXH             | 30HV02B121MM                 |
| 05                                | SV02HC151KHA                 | 2020CX151KA302               | 302H46W151KQ3H               | UTC4126-05                   | 126975-05                    | PCI1558-05                   | 2020N151K302LEXH             | 30HV02B151KM                 |
| 06                                | SV02HC151MHA                 | 2020CX151MA302               | 302H46W151MQ3H               | UTC4126-06                   | 126975-06                    | PCI1558-06                   | 2020N151M302LEXH             | 30HV02B151MM                 |
| 07                                | SV02HC181KHA                 | 2020CX181KA302               | 302H46W181KQ3H               | UTC4126-07                   | 126975-07                    | PCI1558-07                   | 2020N181K302LEXH             | 30HV02B181KM                 |
| 08                                | SV02HC181MHA                 | 2020CX181MA302               | 302H46W181MQ3H               | UTC4126-08                   | 126975-08                    | PCI1558-08                   | 2020N181M302LEXH             | 30HV02B181MM                 |
| 09                                | SV02HC221KHA                 | 2020CX221KA302               | 302H46W221KQ3H               | UTC4126-09                   | 126975-09                    | PCI1558-09                   | 2020N221K302LEXH             | 30HV02B221KM                 |
| 10                                | SV02HC221MHA                 | 2020CX221MA302               | 302H46W221MQ3H               | UTC4126-10                   | 126975-10                    | PCI1558-10                   | 2020N221M302LEXH             | 30HV02B221MM                 |
| 11                                | SV02HC271KHA                 | 2020CX271KA302               | 302H46W271KQ3H               | UTC4126-11                   | 126975-11                    | PCI1558-11                   | 2020N271K302LEXH             | 30HV02B271KM                 |
| 12                                | SV02HC271MHA                 | 2020CX271MA302               | 302H46W271MQ3H               | UTC4126-12                   | 126975-12                    | PCI1558-12                   | 2020N271M302LEXH             | 30HV02B271MM                 |
| 13                                | SV02HC331KHA                 | 2020CX331KA302               | 302H46W331KQ3H               | UTC4126-13                   | 126975-13                    | PCI1558-13                   | 2020B331K302LEXH             | 30HV02B331KM                 |
| 14                                | SV02HC331MHA                 | 2020CX331MA302               | 302H46W331MQ3H               | UTC4126-14                   | 126975-14                    | PCI1558-14                   | 2020B331M302LEXH             | 30HV02B331MM                 |
| 15                                | SV02HC391KHA                 | 2020CX391KA302               | 302H46W391KQ3H               | UTC4126-15                   | 126975-15                    | PCI1558-15                   | 2020B391K302LEXH             | 30HV02B391KM                 |
| 16                                | SV02HC391MHA                 | 2020CX391MA302               | 302H46W391MQ3H               | UTC4126-16                   | 126975-16                    | PCI1558-16                   | 2020B391M302LEXH             | 30HV02B391MM                 |
| 17                                | SV02HC471KHA                 | 2020CX471KA302               | 302H46W471KQ3H               | UTC4126-17                   | 126975-17                    | PCI1558-17                   | 2020B471K302LEXH             | 30HV02B471KM                 |
| 18                                | SV02HC471MHA                 | 2020CX471MA302               | 302H46W471MQ3H               | UTC4126-18                   | 126975-18                    | PCI1558-18                   | 2020B471M302LEXH             | 30HV02B471MM                 |
| 19                                | SV02HC561KHA                 | 2020CX561KA302               | 302H46W561KQ3H               | UTC4126-19                   | 126975-19                    | PCI1558-19                   | 2020B561K302LEXH             | 30HV02B561KM                 |
| 20                                | SV02HC561MHA                 | 2020CX561MA302               | 302H46W561MQ3H               | UTC4126-20                   | 126975-20                    | PCI1558-20                   | 2020B561M302LEXH             | 30HV02B561MM                 |
| 21                                | SV02HC681KHA                 | 2020CX681KA302               | 302H46W681KQ3H               | UTC4126-21                   | 126975-21                    | PCI1558-21                   | 2020B681K302LEXH             | 30HV02B681KM                 |
| 22                                | SV02HC681MHA                 | 2020CX681MA302               | 302H46W681MQ3H               | UTC4126-22                   | 126975-22                    | PCI1558-22                   | 2020B681M302LEXH             | 30HV02B681MM                 |
| 23                                | SV02HC821KHA                 | 2020CX821KA302               | 302H46W821KQ3H               | UTC4126-23                   | 126975-23                    | PCI1558-23                   | 2020B821K302LEXH             | 30HV02B821KM                 |
| 24                                | SV02HC821MHA                 | 2020CX821MA302               | 302H46W821MQ3H               | UTC4126-24                   | 126975-24                    | PCI1558-24                   | 2020B821M302LEXH             | 30HV02B821MM                 |
| 25                                | SV02HC102KHA                 | 2020CX102KA302               | 302H46W102KQ3H               | UTC4126-25                   | 126975-25                    | PCI1558-25                   | 2020B102K302LEXH             | 30HV02B102KM                 |
| 26                                | SV02HC102MHA                 | 2020CX102MA302               | 302H46W102MQ3H               | UTC4126-26                   | 126975-26                    | PCI1558-26                   | 2020B102M302LEXH             | 30HV02B102MM                 |
| 27                                | SV02HC122KHA                 | 2020CX122KA302               | 302H46W122KQ3H               | UTC4126-27                   | 126975-27                    | PCI1558-27                   | 2020B122K302LEXH             | 30HV02B122KM                 |
| 28                                | SV02HC122MHA                 | 2020CX122MA302               | 302H46W122MQ3H               | UTC4126-28                   | 126975-28                    | PCI1558-28                   | 2020B122M302LEXH             | 30HV02B122MM                 |
| 29                                | SV02HC152KHA                 | 2020CX152KA302               | 302H46W152KQ3H               | UTC4126-29                   | 126975-29                    | PCI1558-29                   | 2020B152K302LEXH             | 30HV02B152KM                 |
| 30                                | SV02HC152MHA                 | 2020CX152MA302               | 302H46W152MQ3H               | UTC4126-30                   | 126975-30                    | PCI1558-30                   | 2020B152M302LEXH             | 30HV02B152MM                 |
| 31                                | SV02HC182KHA                 | 2020CX182KA302               | 302H46W182KQ3H               | UTC4126-31                   | 126975-31                    | PCI1558-31                   | 2020B182K302LEXH             | 30HV02B182KM                 |
| 32                                | SV02HC182MHA                 | 2020CX182MA302               | 302H46W182MQ3H               | UTC4126-32                   | 126975-32                    | PCI1558-32                   | 2020B182M302LEXH             | 30HV02B182MM                 |
| 33                                | SV02HC222KHA                 | 2020CX222KA302               | 302H46W222KQ3H               | UTC4126-33                   | 126975-33                    | PCI1558-33                   | 2020B222K302LEXH             | 30HV02B222KM                 |
| 34                                | SV02HC222MHA                 | 2020CX222MA302               | 302H46W222MQ3H               | UTC4126-34                   | 126975-34                    | PCI1558-34                   | 2020B222M302LEXH             | 30HV02B222MM                 |
| 35                                | SV02HC272KHA                 | 2020CX272KA302               | 302H46W272KQ3H               | UTC4126-35                   | 126975-35                    | PCI1558-35                   | 2020B272K302LEXH             | 30HV02B272KM                 |
| 36                                | SV02HC272MHA                 | 2020CX272MA302               | 302H46W272MQ3H               | UTC4126-36                   | 126975-36                    | PCI1558-36                   | 2020B272M302LEXH             | 30HV02B272MM                 |
| 37                                | N/A                          | 2020CX332KA302               | 302H46W332KQ3H               | UTC4126-37                   | 126975-37                    | PCI1558-37                   | 2020B332K302LEXH             | 30HV02B332KM                 |
| 38                                | N/A                          | 2020CX332MA302               | 302H46W332MQ3H               | UTC4126-38                   | 126975-38                    | PCI1558-38                   | 2020B332M302LEXH             | 30HV02B332MM                 |
| 39                                | SV03HC392KHA                 | 2520CX392KA302               | 302H47W392KQ3H               | UTC4126-39                   | 126975-39                    | PCI1558-39                   | 2520B392K302LEXH             | 30HV03B392KM                 |
| 40                                | SV03HC392MHA                 | 2520CX392MA302               | 302H47W392MQ3H               | UTC4126-40                   | 126975-40                    | PCI1558-40                   | 2520B392M302LEXH             | 30HV03B392MM                 |
| 41                                | SV03HC472KHA                 | 2520CX472KA302               | 302H47W472KQ3H               | UTC4126-41                   | 126975-41                    | PCI1558-41                   | 2520B472K302LEXH             | 30HV03B472KM                 |
| 42                                | SV03HC472MHA                 | 2520CX472MA302               | 302H47W472MQ3H               | UTC4126-42                   | 126975-42                    | PCI1558-42                   | 2520B472M302LEXH             | 30HV03B472MM                 |
| 43                                | SV05HC562KHA                 | 3530CX562KA302               | 302H51W562KQ3H               | UTC4126-43                   | 126975-43                    | PCI1558-43                   | 3530B562K302LEXH             | 30HV04B562KM                 |
| 44                                | SV05HC562MHA                 | 3530CX562MA302               | 302H51W562MQ3H               | UTC4126-44                   | 126975-44                    | PCI1558-44                   | 3530B562M302LEXH             | 30HV04B562MM                 |
| 45                                | SV05HC682KHA                 | 3530CX682KA302               | 302H51W682KQ3H               | UTC4126-45                   | 126975-45                    | PCI1558-45                   | 3530B682K302LEXH             | 30HV04B682KM                 |
| 46                                | SV05HC682MHA                 | 3530CX682MA302               | 302H51W682MQ3H               | UTC4126-46                   | 126975-46                    | PCI1558-46                   | 3530B682M302LEXH             | 30HV04B682MM                 |
| 47                                | SV05HC822KHA                 | 3530CX822KA302               | 302H51W822KQ3H               | UTC4126-47                   | 126975-47                    | PCI1558-47                   | 3530B822K302LEXH             | 30HV04B822KM                 |
| 48                                | SV05HC822MHA                 | 3530CX822MA302               | 302H51W822MQ3H               | UTC4126-48                   | 126975-48                    | PCI1558-48                   | 3530B822M302LEXH             | 30HV04B822MM                 |

See footnote at end of table.

|  |  |                         |                                       |                                |
|--|--|-------------------------|---------------------------------------|--------------------------------|
| <b>DEFENSE ELECTRONICS SUPPLY CENTER</b> |  | <b>SIZE</b><br><b>A</b> | <b>CODE IDENT NO.</b><br><b>14933</b> | <b>DWG NO.</b><br><b>87047</b> |
| <b>DAYTON, OHIO</b>                      |  |                         |                                       |                                |
|  |  | <b>REV M</b>            |                                       |                                |
|  |  | <b>PAGE</b>             | <b>8</b>                              |                                |

| 1/ DSCC drawing PIN 87047- | Vendor A similar vendor type | Vendor B similar vendor type | Vendor C similar vendor type | Vendor D similar vendor type | Vendor E similar vendor type | Vendor F similar vendor type | Vendor G similar vendor type | Vendor H similar vendor type |
|----------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| 49                         | SV05HC103KHA                 | 3530CX103KA302               | 302H51W103KQ3H               | UTC4126-49                   | 126975-49                    | PCI1558-49                   | 3530B103K302LEXH             | 30HV04B103KM                 |
| 50                         | SV05HC103MHA                 | 3530CX103MA302               | 302H51W103MQ3H               | UTC4126-50                   | 126975-50                    | PCI1558-50                   | 3530B103M302LEXH             | 30HV04B103MM                 |
| 51                         | SV05HC123KHA                 | 3530CX123KA302               | 302H51W123KQ3H               | UTC4126-51                   | 126975-51                    | PCI1558-51                   | 3530B123K302LEXH             | 30HV04B123KM                 |
| 52                         | SV05HC123MHA                 | 3530CX123MA302               | 302H51W123MQ3H               | UTC4126-52                   | 126975-52                    | PCI1558-52                   | 3530B123M302LEXH             | 30HV04B123MM                 |
| 53                         | N/A                          | 3530CX153KA302               | 302H51W153KQ3H               | UTC4126-53                   | 126975-53                    | PCI1558-53                   | 3530B153K302LEXH             | 30HV04B153KM                 |
| 54                         | N/A                          | 3530CX153MA302               | 302H51W153MQ3H               | UTC4126-54                   | 126975-54                    | PCI1558-54                   | 3530B153M302LEXH             | 30HV04B153MM                 |
| 55                         | SV07HC183KHA                 | 4540CX183KA302               | 302H62W183KQ3H               | UTC4126-55                   | 126975-55                    | PCI1558-55                   | 4540B183K302LEXH             | 30HV05B183KM                 |
| 56                         | SV07HC183MHA                 | 4540CX183MA302               | 302H62W183MQ3H               | UTC4126-56                   | 126975-56                    | PCI1558-56                   | 4540B183M302LEXH             | 30HV05B183MM                 |
| 57                         | SV07HC223KHA                 | 4540CX223KA302               | 302H62W223KQ3H               | UTC4126-57                   | 126975-57                    | PCI1558-57                   | 4540B223K302LEXH             | 30HV05B223KM                 |
| 58                         | SV07HC223MHA                 | 4540CX223MA302               | 302H62W223MQ3H               | UTC4126-58                   | 126975-58                    | PCI1558-58                   | 4540B223M302LEXH             | 30HV05B223MM                 |
| 59                         | SV07HC273KHA                 | 4540CX273KA302               | 302H62W273KQ3H               | UTC4126-59                   | 126975-59                    | PCI1558-59                   | 4540B273K302LEXH             | 30HV05B273KM                 |
| 60                         | SV07HC273MHA                 | 4540CX273MA302               | 302H62W273MQ3H               | UTC4126-60                   | 126975-60                    | PCI1558-60                   | 4540B273M302LEXH             | 30HV05B273MM                 |
| 61                         | N/A                          | 4540CX333KA302               | 302H62W333KQ3H               | UTC4126-61                   | 126975-61                    | PCI1558-61                   | 4540B333K302LEXH             | 30HV05B333KM                 |
| 62                         | N/A                          | 4540CX333MA302               | 302H62W333MQ3H               | UTC4126-62                   | 126975-62                    | PCI1558-62                   | 4540B333M302LEXH             | 30HV05B333MM                 |
| 63                         | SV08HC393KHA                 | 5550CX393KA302               | 302H66W393KQ3H               | UTC4126-63                   | 126975-63                    | PCI1558-63                   | 5550B393K302LEXH             | 30HV06B393KM                 |
| 64                         | SV08HC393MHA                 | 5550CX393MA302               | 302H66W393MQ3H               | UTC4126-64                   | 126975-64                    | PCI1558-64                   | 5550B393M302LEXH             | 30HV06B393MM                 |
| 65                         | SV09HC473KHA                 | 6560CX473KA302               | 302H70W473KQ3H               | UTC4126-65                   | 126975-65                    | PCI1558-65                   | 6560B473K302LEXH             | 30HV07B473KM                 |
| 66                         | SV09HC473MHA                 | 6560CX473MA302               | 302H70W473MQ3H               | UTC4126-66                   | 126975-66                    | PCI1558-66                   | 6560B473M302LEXH             | 30HV07B473MM                 |
| 67                         | SV09HC563KHA                 | 6560CX563KA302               | 302H70W563KQ3H               | UTC4126-67                   | 126975-67                    | PCI1558-67                   | 6560B563K302LEXH             | 30HV07B563KM                 |
| 68                         | SV09HC563MHA                 | 6560CX563MA302               | 302H70W563MQ3H               | UTC4126-68                   | 126975-68                    | PCI1558-68                   | 6560B563M302LEXH             | 30HV07B563MM                 |
| 69                         | SV11HC683KHA                 | 11050CX683KA302              | 302H99W683KQ3H               | UTC4126-69                   | 126975-69                    | PCI1558-69                   | 11050B683K302LEXH            | 30HV15B683KM                 |
| 70                         | SV11HC683MHA                 | 11050CX683MA302              | 302H99W683MQ3H               | UTC4126-70                   | 126975-70                    | PCI1558-70                   | 11050B683M302LEXH            | 30HV15B683MM                 |
| 71                         | SV12HC823KHA                 | 13060CX823KA302              | 302H80W823KQ3H               | UTC4126-71                   | 126975-71                    | PCI1558-71                   | 13060B823K302LEXH            | 30HV16B823KM                 |
| 72                         | SV12HC823MHA                 | 13060CX823MA302              | 302H80W823MQ3H               | UTC4126-72                   | 126975-72                    | PCI1558-72                   | 13060B823M302LEXH            | 30HV16B823MM                 |
| 73                         | SV12HC104KHA                 | 13060CX104KA302              | 302H80W104KQ3H               | UTC4126-73                   | 126975-73                    | PCI1558-73                   | 13060B104K302LEXH            | 30HV16B104KM                 |
| 74                         | SV12HC104MHA                 | 13060CX104MA302              | 302H80W104MQ3H               | UTC4126-74                   | 126975-74                    | PCI1558-74                   | 13060B104M302LEXH            | 30HV16B104MM                 |
| 75                         | N/A                          | 6560CX823KA302               | 302H70W823KQ3H               | UTC4126-75                   | 126975-75                    | PCI1558-75                   | 6560B823K302LEXH             | 30HV07B823KM                 |

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

| <u>Vendor</u> | <u>Vendor CAGE</u> | <u>Vendor name and address</u>   |
|---------------|--------------------|--|
| A             | 96095              | <a href="#">Olean Advanced Products</a><br>A Division of AVX Corporation<br>1695 Seneca Avenue<br>Olean NY 14760-3736    |
| B             | 63980              | <a href="#">Wright Capacitors Incorporated</a><br>2610 South Oak Street<br>Santa Ana CA 92707-3720                       |
| C             | 07EN1              | <a href="#">Advanced Monolythic Ceramics, Incorporated</a><br>3101 Constitution Avenue, Suite 100<br>Olean NY 14760-1867 |
| D             | 0YBX7              | <a href="#">Union Technology Corporation</a><br>718 Monterey Pass Road<br>Monterey Park CA 91754-3607                    |
| E             | 0LR95              | <a href="#">Spectrum Control Technology Incorporated</a><br>1900 West College Avenue<br>State College, PA 16801          |
| F             | 60212              | <a href="#">Presidio Components Incorporated</a><br>7169 Construction Court<br>San Diego CA 92121-2615                   |
| G             | 65238              | <a href="#">Novacap</a><br>25136 Anza Drive<br>Valencia CA 91355-3415  |
| H             | 3H3G4              | <a href="#">CalRamic Technologies LLC</a><br>5462 Louie Lane<br>Reno, NV 89511   |

|   |                   |                                 |                          |
|---|-------------------|---------------------------------|--------------------------|
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|   |                   | <b>REV M</b>                    | <b>PAGE 9</b>            |