

INCH-POUND

A-A-55484  
1 August 1994

## COMMERCIAL ITEM DESCRIPTION

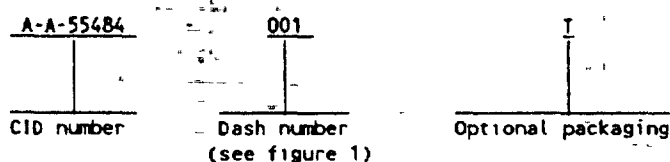
## SHIELDING BEADS, FERRITE, LEADED, EMI SUPPRESSOR

The General Services Administration has authorized the use of this commercial item description (CID)

**Abstract.** This CID covers the general requirements for a family of leaded shielding beads made of ferrite material.

**Application.** Shielding beads covered by this CID are intended for commercial/industrial applications and shall not be used in military systems needing stringent environmental and electrical requirements.

**Part or Identifying Number (PIN).** The PIN for the CID shall be as shown in the following example.

Salient characteristics.

**Design, construction, and dimensions.** Design, construction, and dimensions shall be as specified on figure 1.

**Material.** The ferrite bead shall be nickel zinc, manganese zinc or equivalent ferrite. PIN's 22 through 30 are to attenuate frequencies below 25 MHz; PIN's 1 through 12 are to attenuate frequencies 25 MHz and higher; and PIN's 13 through 21 are to attenuate frequencies 200 MHz and higher.

**Impedance ( $\Omega$ ).** Impedance shall be as specified in table 1. All impedances are measured with 1 turn of wire through the ferrite bead.

**Operating temperature range.** The operating temperature range shall be  $-54^{\circ}\text{C}$  to  $+110^{\circ}\text{C}$ .

**Optional packaging.** When optional packaging is required, whether the leaded bead should be taped and reeled for automatic insertion equipment, a suffix "T" shall be added to the PIN.

**Workmanship.** The ferrite beads shall be fabricated and finished in such a manner that criteria for appearance, fit, and adherence to specific tolerances shall be observed. The bead shall be uniform in quality and shall be free from defects that will affect life or serviceability.

**Marking.** Parts shall not be marked. The unit package supplied to this CID shall be marked with the manufacturer's standard PIN.

**Regulatory requirements.** This section is not applicable to this CID.

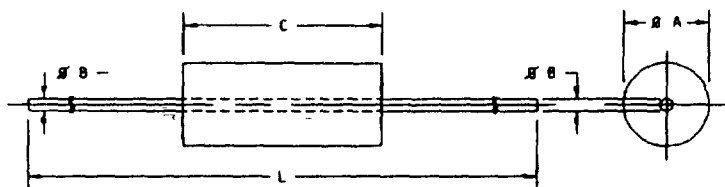
AMSC N/A

DISTRIBUTION STATEMENT A

Approved for public release, distribution is unlimited

FSC 5950

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Dash number A-A-55484-	Dimensions			
	A	B "through core"	C	L
001	.138 ± .010	#22 AWG TCW	.175 ± .010	2.375/2.500
002	.138 ± .010	#22 AWG TCW	.350 ± .020	2.375/2.500
003	.138 ± .010	#22 AWG TCW	.263 ± .010	2.375/2.500
004	.138 ± .010	#22 AWG TCW	.300 ± .020	2.375/2.500
005	.138 ± .010	#22 AWG TCW	.236 ± .010	2.375/2.500
006	.138 ± .010	#22 AWG TCW	.375 ± .010	2.375/2.500
007	.138 ± .010	#22 AWG TCW	.450 ± .015	2.375/2.500
008	.138 ± .010	#22 AWG TCW	.545 ± .025	2.375/2.500
009	.385 ± .010	#20 AWG TCW	.450 ± .015	2.375/2.500
010	.385 ± .010	#20 AWG TCW	.550 ± .020	2.375/2.500
011	.385 ± .010	#20 AWG TCW	.650 ± .020	2.375/2.500
012	.138 ± .010	#22 AWG TCW	.206 ± .010	2.375/2.500
013	.138 ± .010	#22 AWG TCW	.175 ± .010	2.375/2.500
014	.138 ± .010	#22 AWG TCW	.350 ± .020	2.375/2.500
015	.138 ± .010	#22 AWG TCW	.263 ± .010	2.375/2.500
016	.138 ± .010	#22 AWG TCW	.300 ± .020	2.375/2.500
017	.138 ± .010	#22 AWG TCW	.236 ± .010	2.375/2.500
018	.138 ± .010	#22 AWG TCW	.375 ± .010	2.375/2.500
019	.138 ± .010	#22 AWG TCW	.450 ± .015	2.375/2.500

Figure 1. Dimensions and configuration.

Dash number A-A-55484-	Dimensions			
	A	B "through core"	C	L
020	.138 ±.010	#22 AWG TCW	.545 ±.025	2.375/2.500
021	.138 ±.010	#22 AWG TCW	.206 ±.010	2.375/2.500
022	.138 ±.010	#22 AWG TCW	.175 ±.010	2.375/2.500
023	.138 ±.010	#22 AWG TCW	.350 ±.020	2.375/2.500
024	.138 ±.010	#22 AWG TCW	.263 ±.010	2.375/2.500
025	.138 ±.010	#22 AWG TCW	.300 ±.020	2.375/2.500
026	.138 ±.010	#22 AWG TCW	.236 ±.010	2.375/2.500
027	.138 ±.010	#22 AWG TCW	.375 ±.010	2.375/2.500
028	.138 ±.010	#22 AWG TCW	.450 ±.015	2.375/2.500
029	.138 ±.010	#22 AWG TCW	.545 ±.025	2.375/2.500
030	.138 ±.010	#22 AWG TCW	.206 ±.010	2.375/2.500

Inches	mm	Inches	mm
.010	0.26	.350	8.89
.015	0.38	.375	9.53
.020	0.51	.385	9.78
.025	0.64	.450	11.43
.138	3.51	.545	13.84
.175	4.45	.550	13.97
.206	5.23	.650	16.51
.236	5.99	2.375	60.33
.263	6.68	2.500	63.50
.300	7.62		

## NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. All wire extends through core.

Figure 1. Dimensions and configuration - Continued.

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TABLE 1. Impedance values.

Dash number A-A-55484-	Impedance (Z) in ohms				Dash number A-A-55484-	Impedance (Z) in ohms			
	10 MHz	25 MHz	100 MHz	250 MHz		10 MHz	25 MHz	100 MHz	250 MHz
001	---	39 min.	54 - 82	---	016	---	---	90 min.	115 - 173
002	---	70 min.	106 - 160	---	017	---	---	70 min.	90 - 136
003	---	52 min.	80 - 120	---	018	---	---	112 min.	144 - 216
004	---	60 min.	88 - 132	---	019	---	---	135 min.	170 - 255
005	---	48 min.	72 - 109	---	020	---	---	163 min.	206 - 310
006	---	77 min.	120 - 180	---	021	---	---	61 min.	80 - 120
007	---	93 min.	144 - 216	---	022	38 min.	49 - 73	---	---
008	---	114 min.	176 - 264	---	023	75 min.	92 - 138	---	---
009	---	154 min.	216 - 325	---	024	56 min.	69 - 103	---	---
010	---	188 min.	264 - 397	---	025	64 min.	79 - 118	---	---
011	---	224 min.	312 - 469	---	026	50 min.	62 - 93	---	---
012	---	43 min.	66 - 98	---	027	88 min.	108 - 162	---	---
013	---	---	50 min.	72 - 108	028	100 min.	124 - 187	---	---
014	---	---	105 min.	134 - 202	029	121 min.	152 - 228	---	---
015	---	---	78 min.	100 - 150	030	44 min.	54 - 82	---	---

Quality assurance provisions.

Responsibility for inspection. The contractor is responsible for the performance of all inspection, examination, and test requirements specified in the contract or purchase order. The contractor may use his own or any other facilities suitable for the inspection requirements specified in the contract or purchase order, unless otherwise disapproved by the acquiring activity. The acquiring activity reserves the right to perform any of the inspections set forth in the contract or purchase order where such inspections, examinations, and tests are deemed necessary to assure supplies and services conform to prescribed requirements.

Contractor certification statement. The contractor shall certify and maintain objective quality evidence that the product offered meets the requirements of this CID, and that the product conforms to the producer's own drawings, specifications, standards, quality assurances practices, and is the same as the product provided as a bid sample. The acquiring activity reserves the right to require proof of such conformance prior to the first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

Certificate of compliance. A certificate of compliance shall accompany all leaded shielding beads supplied to this CID

Packaging.

Preservation, packaging, packing, labeling, and marking Preservation, packaging, labeling, and marking shall be as specified in the acquisition document

Notes. This section contains relevant information which is useful to buyers, users, and suppliers in the process of acquiring the item, but is not mandatory.

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

- a. CID document number and revision and CID PIN.
- b. Quality assurance provisions.
- c. Packaging requirements.
- d. Whether the leaded bead should be taped and reeled for automatic insertion equipment.

Comments. Comments on this CID should be directed to Defense Electronics Supply Center, ATTN: DESC-ELDM, 1507 Wilmington Pike, Dayton, OH 45444-5765, or telephone (513) 296-6189, or facsimile (FAX) (513) 296-8868

Supersession information. Supersession information is specified in table II.

TABLE II. Supersession information.

CID PIN A-A-55484-	Superseded PIN per 90029 28 Jan 1991
001	90029-001
002	90029-002
003	90029-003
004	90029-004
005	90029-005
006	90029-006
007	90029-007
008	90029-008
009	90029-009
010	90029-010
011	90029-011
012	90029-012
013	90029-013
014	90029-014
015	90029-015
016	90029-016
017	90029-017
018	90029-018
019	90029-019
020	90029-020
021	90029-021
022	90029-022
023	90029-023
024	90029-024
025	90029-025
026	90029-026
027	90029-027
028	90029-028
029	90029-029
030	90029-030

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Source of supply. A suggested source of supply is listed in table III. Additional suggested sources of supply will be added as they become available

TABLE III. Suggested source of supply.

CID drawing PIN A-A-55484-	Vendor commercial PIN
001	2743001111
002	2743002111
003	2743003111
004	2743004111
005	2743005111
006	2743007111
007	2743008111
008	2743009111
009	2743012201
010	2743013211
011	2743014221
012	2743015111
013	2761001111
014	2761002111
015	2761003111
016	2761004111
017	2761005111
018	2761007111
019	2761008111
020	2761009111
021	2761015111
022	2773001111
023	2773002111
024	2773003111
025	2773004111
026	2773005111
027	2773007111
028	2773008111
029	2773009111
030	2773015111

Vendor CAGE  
number

34899

Vendor name  
and address

Fair-Rite Products Corporation  
One Commercial Row  
Wallkill, NY 12589  
Phone: (914) 895-2055

CIVIL AGENCY COORDINATING ACTIVITY

GSA - 7FXE

PREPARING ACTIVITY

DLA - ES

(Project 5950-0241)