

[INCH-POUND]
A-A-55564/3E
6 August 2024
SUPERSEDING
A-A-55564/3D
1 May 2018

COMMERCIAL ITEM DESCRIPTION

RESISTOR, VOLTAGE SENSITIVE (VARISTOR), METAL OXIDE, RADIAL LEAD

The General Services Administration has authorized the use of this
Commercial Item Description for all agencies.

Inactive for new design
after 31 March 2008

Parts manufactured prior to 31 March 2008
and after 29 April 2015 may only be used for
replacement purposes.

This complete requirements for procuring the radial leaded, transient voltage suppression device described herein shall consist of this document and the issue in effect of Commercial Item Description (CID) [A-A-55564](#).

CLASSIFICATION. This CID uses a classification system which is included in the Part Identification Number (PIN) as shown in the following example (see notes).

<u>AA55564</u>	<u>03</u>	-	<u>001</u>
Abbreviated CID number	Applicable CID sheet (two digits)		Dash number (see applicable CID sheet)

SALIENT CHARACTERISTICS

Interface and physical dimensions. The varistors supplied to this CID shall meet the interface and physical dimensions as specified herein (see figure 1).

Power rating. The power rating for the varistor shall be 0.20 watt, 0.25 watt, 0.40 watt, 0.60 watt, and 1.0 watt for cases 1, 2, 3, 4, and 5 respectively.

Voltage rating. The voltage rating shall be as specified in table I.

Energy rating. The energy rating shall be as specified in table I.

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data that may improve this document should be sent to: DLA Land and Maritime, ATTN: VAT, P.O. Box 3990, Columbus, OH 43218-3990, or email Resistors@dla.mil. Since contact information can change, you may want to verify the currency of the address information using the ASSIST Online database at <https://assist.dla.mil>.

Peak current. The peak current shall be as specified in table I.

AMSC N/A

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

FSC 5905



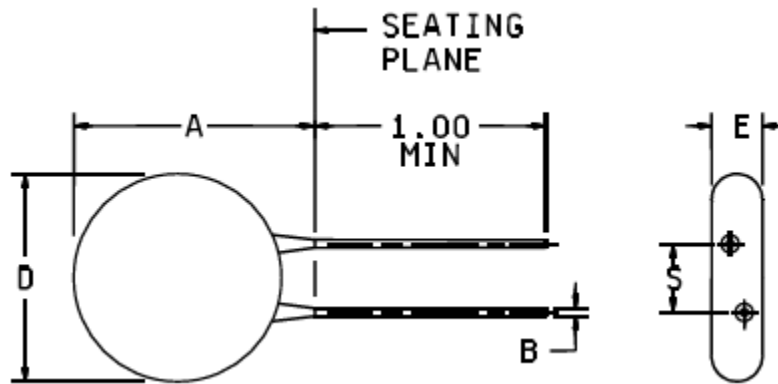
Clamping voltage. The clamping voltage shall be as specified in table I.

Capacitance. The capacitance shall be as specified in table I.

Operating ambient temperature. The operating ambient temperature range shall be -55°C to +85°C.

Storage temperature. The storage temperature shall be -55°C to +125°C.

Marking. Varistors supplied to this CID shall be marked with the manufacturer's standard commercial PIN.



Dimensions					
Case code	A (max)	D (max)	S ±0.039	B (max)	E (max)
1	0.394	0.296	0.199	0.227	0.220
2	0.472	0.354		0.227	
3	0.630	0.492	0.296	0.034	
4	0.787	0.689		0.034	
5	1.043	0.906			

Inches	mm	Inches	mm	Inches	mm	Inches	mm
0.034	0.86	0.227	5.79	0.472	11.99	0.787	19.99
0.039	0.99	0.296	7.52	0.492	12.50	0.906	23.01
0.199	5.05	0.354	8.99	0.630	16.00	1.043	26.49
0.220	5.59	0.394	10.01	0.689	17.50		

NOTES:

1. All dimensions are in inches.
2. Metric equivalents are given for general information.

FIGURE 1. Case dimension and configuration.

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TABLE I. Rating and characteristics.

Dash number	Case code	Voltage rating (max)		Energy in Joules (max) (J)	Peak current (amperes)	Varistor voltage with 1mA dc test current		Max clamping voltage at test current		Typical capacitance (picofarads)
		(rms)	(dc)			(min)	(max)	(V)	(I)	
01	1	14	18	0.20	35	18.7	26	51	2	800
02	2	14	18	0.90	150	18.7	26	47	5	1600
03	3	14	18	2.00	350	18.7	26	43	5	4000
04	4	14	18	4.00	750	18.7	26	43	10	9000
05	5	14	18	6.50	1500	19.2	26	43	20	18000
06	1	17	22	0.25	35	23	31.1	59	2	600
07	2	17	22	1.00	150	23	31.1	57	5	1300
08	3	17	22	2.50	350	23	31.1	53	5	3000
09	4	17	22	5.00	750	23	31.1	53	10	7000
10	5	17	22	8.00	1500	23	31.1	50	20	13000
11	1	20	26	0.30	35	29.5	38	67	2	500
12	2	20	26	1.20	150	29.5	36.5	68	5	1100
13	3	20	26	3.00	350	29.5	36.5	64	5	2700
14	4	20	26	6.00	750	29.5	36.5	64	10	6000
15	5	21	27	9.00	1500	29.5	36.5	58	20	13000
16	5	23	31	10.00	1500	32	40	63	20	12000
17	1	25	31	0.35	35	35	46	79	2	220
18	2	25	31	1.50	150	35	43	79	5	500
19	3	25	31	3.50	350	35	43	76	5	1100
20	4	25	31	7.20	750	35	43	76	10	2700
21	1	30	38	0.40	35	42	55	90	2	6000
22	2	30	38	1.80	150	42	52	92	5	400
23	3	30	38	4.50	350	42	52	89	5	2000
24	4	30	38	8.80	750	42	52	89	10	4500
25	1	35	45	0.50	35	50	66	108	2	360
26	2	35	45	2.30	150	50	62	107	5	700
27	3	35	45	5.50	350	50	62	103	5	1800
28	4	35	45	10.00	750	50	62	103	10	3900
29	1	40	56	0.60	35	61	80	127	2	300
30	2	40	56	3.00	150	61	75	127	5	600
31	3	40	56	6.50	350	61	75	123	5	1500
32	4	40	56	13.00	750	61	75	123	10	3300
33	1	50	66	1.20	150	73	97	145	2	240
34	2	50	66	3.50	500	73	91	135	10	500
35	3	50	66	7.30	1000	73	91	135	25	1100
36	4	50	66	13.00	2000	73	91	145	50	2500
37	1	60	81	1.50	150	90	117	175	2	180
38	2	60	81	4.30	500	90	110	165	10	400
39	3	60	81	8.90	1000	90	110	165	25	900
40	4	60	81	16.00	2000	90	110	175	50	2000
41	1	75	102	1.80	150	108	138	205	2	140
42	2	75	102	5.30	500	108	132	205	10	300
43	3	75	102	11.00	1000	108	132	200	25	750
44	4	75	102	19.00	2000	108	132	210	50	1700
45	1	92	127	2.30	200	135	173	240	2	120
46	2	95	127	6.50	750	135	165	250	10	250
47	3	95	127	13.00	1500	135	165	250	25	600
48	4	95	127	23.00	3000	135	165	255	50	1400
49	1	115	153	2.70	200	162	207	290	2	100

TABLE I. Rating and characteristics. - Continued

Dash number	Case code	Voltage rating (max)		Energy in Joules (max) (J)	Peak current (amperes)	Varistor voltage with 1mA dc test current		Max clamping voltage at test current		Typical capacitance (picofarads)
		(rms)	(dc)			(min)	(max)	(V)	(I)	
50	2	115	153	7.70	750	162	198	295	10	200
51	3	115	153	16.00	1500	162	198	300	25	500
52	4	115	153	27.00	3000	162	198	300	50	1100
53	1	4	5.5	0.10	50	6	11	30	1	1400
54	2	4	5.5	0.40	100	6	11	22	2.5	3000
55	3	4	5.5	0.80	250	6	11	20	5	7500
56	1	6	8	0.14	50	9	16	37	1	1200
57	2	6	8	0.60	100	9	16	34	2.5	2500
58	3	6	8	1.20	250	9	16	30	5	6000
59	1	10	14	0.17	100	14.4	21.6	36	1	1000
60	2	10	14	0.80	250	14.4	21.6	36	2.5	2000
61	3	10	14	1.50	500	14.4	21.6	36	5	5000
62	4	10	14	3.50	1000	14.4	21.6	36	10	11000
63	5	10	14	80.00	2000	14.4	21.6	37	20	22000

NOTES.

PIN. The PIN should be used for Government purposes to buy commercial products to this CID. See classification information for PIN format example.

Commercial and Government Entity (CAGE) code. For ordering purposes, inventory control, and submission of these resistors to DLA Land and Maritime under the Parts Management Evaluation Team (PMAT) evaluation program, CAGE code 58536 should be used.

Source of documents.

Commercial Item Description

A-A-55564

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Resistor, Voltage Sensitive (Varistor)

(Copies of these documents are available online at <https://quicksearch.dla.mil>).

Ordering data. Ordering data is as specified in [A-A-55564](#).

Commercial products. As part of the market analysis and research effort, this CID was coordinated with the following manufacturers of commercial products. At the time of CID preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict procurement to only the manufacturers shown).

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TABLE II. Commercial products.

MFR's CAGE MFR's name and address

75915 1/

Sales:

Littelfuse, Inc.

8755 West Higgins Road

Suite 500

Chicago, IL 60631

Phone: (773) 628.1000

Website: <https://www.littelfuse.com>

Plant:

SHIN-HANG Electronics Enterprise Co. Ltd.,

No. 16, Lane 701 Long Shing Rd,

How Liou Li Chung-Li,

Taoyuan, Taiwan, R.O.C.

Website: <https://www.shin-hang.com.tw>

- 1/ Parts manufactured prior to 30 March 2008 and after 29 April 2015 may only be used for replacement purposes.

Part number (P/N) supersession data. These CID part numbers supersede the following MFR's P/N's as shown. This information is being provided to assist in reducing proliferation in the Government inventory system.

TABLE III. P/N supersession data.

Dash number AA5556403-	MFR's P/N <u>1/ 2/</u>	Dash number AA5556403-	MFR's P/N <u>1/ 2/</u>	Dash number AA5556403-	MFR's P/N <u>1/ 2/</u>	MFR's CAGE
001	V22ZA05	022	V47ZA1	043	V120ZA4	S6019
002	V22ZA1	023	V47ZA3	044	V120ZA6	
003	V22ZA2	024	V47ZA7	045	V150ZA05	
004	V22ZA3	025	V56ZA05	046	V150ZA1	
005	V24ZA50	026	V56ZA2	047	V150ZA4	
006	V27ZA05	027	V56ZA3	048	V150ZA8	
007	V27ZA1	028	V56ZA8	049	V180ZA05	
008	V27ZA2	029	V68ZA05	050	V180ZA1	
009	V27ZA4	030	V68ZA2	051	V180ZA5	
010	V27ZA60	031	V68ZA3	052	V180ZA10	
011	V33ZA05	032	V68ZA10	053	V8ZA05	
012	V33ZA1	033	V82ZA05	054	V8ZA1	
013	V33ZA2	034	V82ZA2	055	V8ZA2	
014	V33ZA5	035	V82ZA4	056	V12ZA05	
015	V33ZA70	036	V82ZA12	057	V12ZA1	
016	V36ZA80	037	V100ZA05	058	V12ZA2	
017	V39ZA05	038	V100ZA3	059	V18ZA05	
018	V39ZA1	039	V100ZA4	060	V18ZA1	
019	V39ZA3	040	V100ZA15	061	V18ZA2	
020	V39ZA6	041	V120ZA05	062	V18ZA3	
021	V47ZA05	042	V120ZA1	063	V18ZA40	

- 1/ The manufacturers P/N shall not be used for procurement to the requirements of this CID. At the time of preparation of this CID, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph.

- 2/ Parts manufactured prior to 30 March2008 and after 29 April 2015 may only be used for replacement purposes.

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National stock number (NSN). The following is a list of NSN's assigned which correspond to this CID specification sheet. The list is for information only and may not be indicative of all possible NSN's associated with the CID specification sheet. For up to date information on assigned NSN's, please contact the aforementioned DLA Land and Maritime office listed in [A-A-55564](#).

TABLE IV. NSN's.

Dash number (see table I) AA5556403	NSN
-016	5905-01-530-2075
-044	5905-01-571-0997

Government users. To acquire information on obtaining these resistors from the Government inventory system, contact DLA Land and Maritime, ATTN: FMX, Post Office Box 3990, Columbus, OH 43216-5000, or telephone (614) 692-3677.

Changes from previous issue. The margins of this CID are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

MILITARY INTERESTS:

CIVIL AGENCY COORDINATING ACTIVITY:

Custodians:
Navy - EC
DLA - CC

GSA - FAS

Preparing Activity:

DLA - CC

Project 5905-2024-042

NOTE: The activities listed above were interested in this document as 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 <https://assist.dla.mil>.