

DIN EN 61360-4

ICS 01.040.29; 01.040.31; 29.100.20; 31.020

Ersatz für
DIN EN 61360-4:1998-06
Siehe jedoch Beginn der
Gültigkeit

Genormte Datenelementtypen mit Klassifikationsschema für elektrische Bauteile –**Teil 4: IEC Nachschlagewerk für genormte Datenelementtypen, Bauteilklassen und Terme (IEC 61360-4:2005); Deutsche Fassung EN 61360-4:2005, Text Englisch**

Standard data element types with associated classification scheme for electric components –

Part 4: IEC reference collection of standard data element types and component classes (IEC 61360-4:2005);

German version EN 61360-4:2005, text in English

Types normalisés d'éléments de données avec plan de classification pour composants électriques –

Partie 4: Collection de référence CEI des types normalisés d'éléments de données, des classes de composants et des termes (CEI 61360-4:2005);

Version allemande EN 61360-4:2005, texte en anglais

Gesamtumfang 397 Seiten

DKE Deutsche Kommission Elektrotechnik Elektronik Informationstechnik im DIN und VDE
Normenausschuss Maschinenbau (NAM) im DIN
Normenausschuss Sachmerkmale (NSM) im DIN

Beginn der Gültigkeit

Die von CENELEC am 2005-03-01 angenommene EN 61360-4 gilt als Norm ab 2005-11-01.

Daneben darf DIN EN 61360-4:1998-06 noch bis 2008-03-01 angewendet werden.

Nationales Vorwort

Vorausgegangene Norm-Entwürfe: E DIN EN 61360-4/A1-1:2002-02 und E DIN EN 61360-4/A1-2:2002-02.

Für die vorliegende Norm ist das nationale Arbeitsgremium K 113 „Produktdatenmodelle, Informationsstrukturen, Dokumentation und graphische Symbole“ der DKE Deutsche Kommission Elektrotechnik Elektronik Informationstechnik im DIN und VDE zuständig.

Die enthaltene IEC-Publikation wurde vom SC 3D „Data sets for libraries“ erarbeitet.

Das IEC-Komitee hat entschieden, dass der Inhalt dieser Publikation bis zu dem auf der IEC-Website unter „<http://webstore.iec.ch>“ mit den Daten zu dieser Publikation angegebenen Datum (maintenance result date) unverändert bleiben soll. Zu diesem Zeitpunkt wird entsprechend der Entscheidung des Komitees die Publikation

- bestätigt,
- zurückgezogen,
- durch eine Folgeausgabe ersetzt oder
- geändert.

Für den Fall einer undatierten Verweisung im normativen Text (Verweisung auf eine Norm ohne Angabe des Ausgabedatums und ohne Hinweis auf eine Abschnittsnummer, eine Tabelle, ein Bild usw.) bezieht sich die Verweisung auf die jeweils neueste gültige Ausgabe der in Bezug genommenen Norm.

Für den Fall einer datierten Verweisung im normativen Text bezieht sich die Verweisung immer auf die in Bezug genommene Ausgabe der Norm.

Der Zusammenhang der zitierten Normen mit den entsprechenden Deutschen Normen ergibt sich, soweit ein Zusammenhang besteht, grundsätzlich über die Nummer der entsprechenden IEC-Publikation. Beispiel: IEC 60068 ist als EN 60068 als Europäische Norm durch CENELEC übernommen und als DIN EN 60068 ins Deutsche Normenwerk aufgenommen.

Das Präsidium des DIN hat mit seinem Beschluss 1/2004 festgelegt, dass von dem in den Regeln der europäischen Normungsarbeit von CEN/CENELEC verankerten Grundsatz, wonach Europäische Normen in den drei offiziellen Sprachen Deutsch, Englisch und Französisch veröffentlicht werden, in begründeten Ausnahmefällen abgewichen und auf die deutsche Sprachfassung verzichtet werden kann.

Die Genehmigung dafür hat die DIN-Geschäftsleitung entsprechend ihren in Anlage 1 zu dem DIN-Rundschreiben A 5/2004 festgelegten Kriterien für die vorliegende Norm auf Antrag der DKE als Ergebnis einer Einzelfallentscheidung erteilt, zumal bereits dieser Norm zugrunde liegende Papiere überwiegend in englischer Sprache auch von den deutschen Marktteilnehmern angewendet werden.

Einführung in die DIN EN 61360-4

IEC 61360-4 legt in zwei Wörterbüchern fest:

- die Definitionen der Datenelementtypen elektrischer Bauteile und Materialien, die in elektrotechnischen Geräten und System angewendet werden;
- Die Definitionen der Bauteileklassen mit zugehörigem Klassifikationsschema.

Die in dieser Norm wiedergegebenen Definitionen beziehen sich auf elektrische Bauteile einschließlich elektronischer und elektromechanischer Bauteile und Materialien, die in elektrotechnischen Geräten und Systemen angewendet werden.

Zweck dieser Norm ist die Bereitstellung einer Menge einheitlich identifizierter Datenelementtypen mit

- unzweideutig definierter Bedeutung;
- definiertem Werteformat und
- einem vorgeschriebenen Wertebereich für nicht quantitative Datenelementtypen.

Das Klassifikationsschema für Bauteile, die Definitionen von Bauteileklassen (womit die sinnvollen und gültigen charakteristischen Eigenschaften durch spezifische Datenelementtypen jeder Bauteileklasse zugewiesen werden) und die Termdefinitionen dienen dazu, die Datenelementtypen unzweideutig zu definieren und die gesamte Menge der Datenelementtypen handhabbar zu machen.

Die Sammlung von Datenelementtypen dieser Internationalen Norm ist für die Anwendung in rechnerunterstützten Systemen, zur Auswahl und Handhabung von Bauteilen, bei der Stücklistenbearbeitung und bei der rechnerunterstützten Gestaltung, Verarbeitung und Prüfung bestimmt.

Änderungen

Gegenüber DIN EN 61360-4:1998-06 wurden folgende Änderungen vorgenommen:

- a) geometrische Eigenschaften von Bauteileformen mit Abbildungen und Zeichnungen wurden aufgenommen;
- b) Beschreibungen der Eigenschaften für Halbleiterchips wurden aufgenommen;
- c) Datenelementtypen, die dem JEITA-Wörterbuch aus Japan entstammen, wurden aufgenommen.

Frühere Ausgaben

DIN EN 61360-4: 1998-06

– Leerseite –

Genormte Datenelementtypen mit Klassifikationsschema für elektrische Bauteile

Teil 4: IEC Nachschlagewerk für genormte Datenelementtypen, Bauteilklassen und Terme
(IEC 61360-4:2005)

Standard data element types with associated classification scheme for electric components –
Part 4: IEC reference collection of standard data element types and component classes
(IEC 61360-4:2005)

Types normalisés d'éléments de données avec plan de classification pour composants électriques –
Partie 4: Collection de référence CEI des types normalisés d'éléments de données, des classes de composants et des termes
(CEI 61360-4:2005)

Diese Europäische Norm wurde von CENELEC am 2005-03-01 angenommen. Die CENELEC-Mitglieder sind gehalten, die CEN/CENELEC-Geschäftsordnung zu erfüllen, in der die Bedingungen festgelegt sind, unter denen dieser Europäischen Norm ohne jede Änderung der Status einer nationalen Norm zu geben ist.

Auf dem letzten Stand befindliche Listen dieser nationalen Normen mit ihren bibliographischen Angaben sind beim Zentralsekretariat oder bei jedem CENELEC-Mitglied auf Anfrage erhältlich.

Diese Europäische Norm besteht in drei offiziellen Fassungen (Deutsch, Englisch, Französisch). Eine Fassung in einer anderen Sprache, die von einem CENELEC-Mitglied in eigener Verantwortung durch Übersetzung in seine Landessprache gemacht und dem Zentralsekretariat mitgeteilt worden ist, hat den gleichen Status wie die offiziellen Fassungen.

CENELEC-Mitglieder sind die nationalen elektrotechnischen Komitees von Belgien, Dänemark, Deutschland, Estland, Finnland, Frankreich, Griechenland, Irland, Island, Italien, Lettland, Litauen, Luxemburg, Malta, den Niederlanden, Norwegen, Österreich, Polen, Portugal, Schweden, der Schweiz, der Slowakei, Slowenien, Spanien, der Tschechischen Republik, Ungarn, dem Vereinigten Königreich und Zypern.

CENELEC

Europäisches Komitee für Elektrotechnische Normung
European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique

Zentralsekretariat: rue de Stassart 35, B-1050 Brüssel

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Ref. Nr. EN 61360-4:2005 D

Vorwort

Der Text des Schriftstücks 3D/134/FDIS, zukünftige 2. Ausgabe von IEC 61360-4, ausgearbeitet von dem SC 3D „Data sets for libraries“ des IEC/TC 3 „Information structures, documentation and graphical symbols“, wurde der IEC-CENELEC Parallelen Abstimmung unterworfen und von CENELEC am 2005-03-01 als EN 61360-4 angenommen. *)

Diese Europäische Norm ersetzt EN 61360-4:1997.

Sie enthält alle Datenelementtypen und Klassendefinitionen aus EN 61360-4:1997 mit aktualisiertem Klassifikationsschema und neuen Definitionen aus den Bereichen:

- a) geometrische Eigenschaften von Bauteileformen mit Abbildungen und Zeichnungen;
- b) Eigenschaften für Halbleiterchips;
- c) Datenelementtypen, die dem JEITA-Wörterbuch aus Japan entstammen.

Sie bildet ein Klassifizierungs- und Codierungssystem für geometrische Merkmale von elektrischen und elektromechanischen Bauteilen in Abhängigkeit von der jeweiligen Bauform.

Gegenstand dieses Zusatzes zur Norm ist die Definition der erforderlichen geometrischen Informationen über Bauelementeformen:

- für das Design der verschiedenen Bauteile-Anschlussflächenbilder (component lands, footprints and piercing drawings);
- zur Ermittlung des benutzten Raums;
- für abgeleitete Dimensionen und Toleranzen, die für die automatische Handhabung durch Bestückungsgeräte benötigt werden;
- um ein Klassifizierungsschema bereitzustellen für Suche, Auswahl und Vergleich von Bauteileformen;
- um ein Codierungssystem zur Identifikation der Packungsgrenzen für Bauteile einzurichten;
- um einen Satz von Referenzzeichnungen für die Form, Größe und relative Position des Bauteilekörpers, Einbau-Merkmale, Anschlusspole und Anpasser bereitzustellen;
- um einen Satz von Datenelementtypendefinitionen für geometrische Parameter in rechnerlesbarer Form bereitzustellen.

Diese Europäische Norm erweitert das Klassifikationsschema und DET-Definitionen mit ungehäusten und minimal gehäusten Halbleiterchips, mit oder ohne Verbindungsstrukturen. Es ist eine Daten-Spezifikation, die die Anforderungen definiert für:

- Produktidentität;
- Produktdaten;
- mechanische Information;
- Test-, Qualitäts- und Zuverlässigkeitsinformationen;
- Handhabung Lager- und Einbauinformation;
- Thermische Daten und elektrische Simulationsdaten.

Nachstehende Daten wurden festgelegt:

- spätestes Datum, zu dem die EN auf nationaler Ebene durch Veröffentlichung einer identischen nationalen Norm oder durch Anerkennung übernommen werden muss (dop): 2005-12-01
- spätestes Datum, zu dem nationale Normen, die der EN entgegenstehen, zurückgezogen werden müssen (dow): 2008-03-01

Der Anhang ZA wurde von CENELEC hinzugefügt.

Anerkennungsnotiz

Der Text der Internationalen Norm IEC 61360-4:2005 wurde von CENELEC ohne irgendeine Abänderung als Europäische Norm angenommen.

*) Nationale Fußnote: Satz entsprechend der Englischen Fassung ergänzt

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INTRODUCTION

The contents of this document is in line with the current contents of the IEC online 61360 Component Data Dictionary.

- a) The complete classification scheme is given in Annex A.
- b) The new/amended data element types with their identifier, as listed below, are given in Annex C.

AAD001-001	AAD089-001	AAE000-001	AAG026-001	AAG074-001
AAD002-001	AAD090-001	AAE002-006	AAG027-001	AAG075-001
AAD003-001	AAD091-001	AAE003-006	AAG028-001	AAG076-001
AAD004-001	AAD093-001	AAE004-007	AAG029-001	AAG077-001
AAD005-001	AAD095-001	AAE060-006	AAG030-001	AAG078-001
AAD006-001	AAD115-001	AAE349-006	AAG031-001	AAG079-001
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AAD008-001	AAD117-001	AAE545-006	AAG033-001	AAG081-001
AAD009-001	AAD118-001	AAE618-005	AAG034-001	AAG082-001
AAD010-001	AAD119-001	AAE635-001	AAG035-001	AAG083-001
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AAD012-001	AAD121-001		AAG037-001	AAG085-001
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AAD019-001	AAD129-001	AAF467-001	AAG044-001	AAG092-001
AAD020-001	AAD130-001	AAF468-001	AAG045-001	AAG093-002
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AAD088-001		AAG025-001	AAG073-001	AAG122-001

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AAG129-001	AAJ023-001	AAJ049-001	AAJ076-001	AAJ103-001
AAG130-001	AAJ024-001	AAJ051-001	AAJ077-001	AAJ104-001
AAG131-002	AAJ025-001	AAJ052-001	AAJ078-001	AAJ105-001
AAG133-002	AAJ026-001	AAJ053-001	AAJ079-001	AAJ106-001
AAH005-001	AAJ027-001	AAJ054-001	AAJ080-001	AAJ107-001
	AAJ028-001	AAJ055-001	AAJ081-001	AAJ108-001
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AAJ003-001	AAJ031-001	AAJ058-001	AAJ084-001	AAJ111-001
AAJ004-001	AAJ032-001	AAJ059-001	AAJ085-001	AAJ112-001
AAJ006-002	AAJ033-001	AAJ060-001	AAJ086-001	AAJ113-001
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AAJ017-001	AAJ043-001	AAJ070-001	AAJ096-001	AAJ123-001
AAJ018-001	AAJ044-001	AAJ071-001	AAJ098-001	AAJ124-001
AAJ019-001	AAJ045-001	AAJ072-001	AAJ099-001	

c) The new/amended classes with their identifier, as listed below, are given in Annex B.

AAA000-001	AAA307-001	AAA349-001	AAA384-001	AAA420-001
AAA002-003	AAA308-001	AAA350-001	AAA385-001	AAA421-001
AAA021-003	AAA309-001	AAA351-001	AAA386-001	AAA422-001
AAA026-002	AAA311-001	AAA352-001	AAA387-001	AAA423-001
AAA031-002	AAA312-001	AAA353-001	AAA388-001	AAA424-001
AAA056-002	AAA313-001	AAA354-001	AAA389-001	AAA426-001
AAA074-002	AAA314-001	AAA355-001	AAA390-001	AAA427-001
AAA077-002	AAA318-001	AAA356-001	AAA391-001	AAA428-001
AAA089-002	AAA319-001	AAA357-001	AAA392-001	AAA429-002
AAA092-001	AAA320-001	AAA358-001	AAA393-001	AAA430-002
AAA093-002	AAA322-001	AAA359-001	AAA394-001	AAA431-002
AAA096-002	AAA323-001	AAA360-001	AAA395-001	AAA432-002
AAA098-002	AAA324-001	AAA361-001	AAA396-001	AAA433-002
AAA100-003	AAA325-001	AAA362-001	AAA397-001	AAA434-002
AAA102-002	AAA326-001	AAA363-001	AAA398-001	AAA435-001
AAA115-002	AAA327-001	AAA364-001	AAA399-001	AAA436-001
AAA147-003	AAA328-001	AAA365-001	AAA400-001	AAA437-001
AAA148-002	AAA329-001	AAA366-001	AAA401-001	AAA438-001
AAA149-002	AAA330-001	AAA367-001	AAA402-001	AAA439-001
AAA174-002	AAA332-001	AAA368-001	AAA403-001	AAA440-001
AAA218-002	AAA333-001	AAA369-001	AAA404-001	AAA441-001
AAA229-001	AAA334-001	AAA370-001	AAA405-001	AAA442-001
AAA230-001	AAA335-001	AAA371-001	AAA406-001	AAA443-001
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AAA295-001	AAA339-001	AAA374-001	AAA409-001	AAA446-001
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AAA297-001	AAA341-001	AAA376-001	AAA411-001	AAA448-001
AAA298-001	AAA342-001	AAA377-001	AAA412-001	AAA449-001
AAA299-001	AAA343-001	AAA378-001	AAA413-001	AAA450-001
AAA301-001	AAA344-001	AAA379-001	AAA414-001	AAA451-002
AAA302-001	AAA345-001	AAA380-001	AAA415-001	AAA452-001
AAA303-001	AAA346-001	AAA381-001	AAA417-001	AAA453-002
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AAA305-001	AAA348-001	AAA383-001	AAA419-001	AAA455-001

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AAA456-001	AAA525-001	AAA550-001	AAA579-001	AAA597-001
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AAA504-001	AAA536-001	AAA556-001	AAA583-001	AAA604-001
AAA505-001	AAA537-001	AAA557-001	AAA584-001	AAA605-001
AAA509-001	AAA538-001	AAA561-001	AAA585-001	AAA606-001
AAA510-001	AAA539-001	AAA562-001	AAA586-001	AAA607-001
AAA511-001	AAA540-001	AAA563-001	AAA587-001	AAA608-001
AAA512-001	AAA541-001	AAA564-001	AAA588-001	AAA609-001
AAA513-001	AAA542-001	AAA565-001	AAA589-001	AAA610-001
AAA514-001	AAA543-001	AAA566-001	AAA590-001	AAA611-001
AAA516-002	AAA544-001	AAA569-001	AAA591-001	AAA612-001
AAA517-001	AAA545-001	AAA572-001	AAA592-001	AAA613-001
AAA518-001	AAA546-001	AAA573-001	AAA593-001	
AAA522-001	AAA547-001	AAA575-001	AAA594-001	
AAA523-001	AAA548-001	AAA576-001	AAA595-001	
AAA524-001	AAA549-001	AAA578-001	AAA596-001	

d) The new/amended drawings with their identifier, as listed below, are given in Annex D.

DAA001-001	DAA012-001	DAA023-001	DAA034-001	DAA045-001
DAA002-001	DAA013-001	DAA024-001	DAA035-001	DAA046-002
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DAA004-001	DAA015-001	DAA026-002	DAA037-001	DAA048-002
DAA005-001	DAA016-001	DAA027-002	DAA038-001	DAA049-001
DAA006-001	DAA017-001	DAA028-002	DAA039-001	DAA050-001
DAA007-001	DAA018-001	DAA029-002	DAA040-001	DAA051-001
DAA008-001	DAA019-001	DAA030-002	DAA041-001	
DAA009-001	DAA020-001	DAA031-001	DAA042-001	
DAA010-001	DAA021-001	DAA032-001	DAA043-001	
DAA011-001	DAA022-001	DAA033-001	DAA044-001	

e) The new/amended figures with their identifier, as listed below, are given in Annex E.

DAE001-001	DAE004-001	DAE012-001	DAE042-001
DAE002-001	DAE005-001	DAE021-001	DAE092-001
DAE003-001	DAE009-001	DAE040-001	DAE119-001

STANDARD DATA ELEMENT TYPES WITH ASSOCIATED CLASSIFICATION SCHEME FOR ELECTRIC COMPONENTS –

Part 4: IEC reference collection of standard data element types and component classes

1 General

1.1 Scope and object

This part of IEC 61360 specifies within two dictionaries:

- the definitions of data element types for electric components and materials used in electrotechnical equipment and systems;
- the definitions of the component classes with associated classification scheme.

These definitions are related to electric components including electronic and electromechanical components and materials used in electrotechnical equipment and systems.

The object of this standard is to provide a set of uniquely-identified data element types with

- an unambiguously defined meaning;
- a defined value format, and
- a prescribed value domain for the non-quantitative data element types.

The classification scheme for components, the component class definitions (whereby the relevant and the valid characteristic properties by specific data element types are assigned to each class of components) are used to define the data element types unambiguously and to make the entire set of data element types manageable.

The collection of data element types from this standard are meant for use in computerized systems for component selection and component management, parts list processing and computer-aided design, -manufacturing and -testing

1.2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050(702): 1992, *International Electrotechnical Vocabulary – Chapter 702: Oscillations, signals and related devices*

IEC 60191-4:1999, *Mechanical standardization of semiconductor devices – Part 4: Coding system and classification into forms of package outlines for semiconductor device packages*

IEC 61360-1: 2002, *Standard data element types with associated classification scheme for electric components – Part 1: Definitions – Principles and methods*

ES 59008-1, *Data requirements for semiconductor die – Part 1: General requirements*

ES 59008-2, *Data requirements for semiconductor die – Part 2: Vocabulary*

ES 59008-3, *Data requirements for semiconductor die – Mechanical, material and connectivity requirements*

ES 59008-4 (all parts), *Data requirements for semiconductor die – Specific requirements and recommendations*

ES 59008-5 (all parts), *Data requirements for semiconductor die – Particular requirements and recommendations for die types*

ES 59008-6-1, *Data requirements for semiconductor die – Part 6-1: Exchange data formats and data dictionary – Data exchange – DDX file format*

2 Terms and definitions

For the purposes of this document, the terms and definitions as given in clause 2 of IEC 61360-1, the terms and definitions of ES 59008-2 as well as the following apply.

2.1

shape

external form of a component package as given by the set of data element types

2.2

seating plane

theoretical plane of an electric component that coincides with the surface of the board if the component rests in its intended mounted position on the board

NOTE 1 This is often used as the reference plane.

NOTE 2 Not all components have a seating plane.

2.3

terminal

conductor that serves to connect a device electrically and/or mechanically with its environment

2.4

terminal form

form of a terminal of a package

2.5

terminal position

alignment of the physical position of the ends of the terminals of a component package

2.6

outline style

physical information enclosing the apparently plane figure presented by any object in sight, contour and/or external boundary of a component

2.7

true

qualifies the ideal value which characterises a quantity perfectly defined in the conditions which exist at the moment at which that quantity is observed, or the subject of a determininal

NOTE This value could be arrived at only if all causes of measurement error were eliminated and the population was infinite. In the case of a finite population, the complete population must be considered.

2.8**true value**

value which characterises a quantity perfectly defined, in the conditions which exist when that value is examined

NOTE The true value of a quantity is an ideal concept and, in general, it cannot be known.

2.9**package**

enclosure for one or more chips, film elements or other components, that allows electrical connection and provides mechanical and environmental protection

2.10**case**

enclosure for one or more chips, film elements or other components, that allows mechanical connection and provides mechanical and environmental protection

2.11**mounting hole**

hole in a mounting structure for mechanical connection and support

2.12**mounting socket**

connector which intends to provide electrical and mechanical support for a component inserted into it

3 Maintenance and validation methodology

The collection of entities as defined in this standard is a dynamic collection which needs actively to be maintained.

IEC 61360-3 specifies the procedures that shall be followed by the validation agency and the maintenance agency of the IEC vocabulary of standard technical data element types with associated classification scheme and component classes as defined by this classification scheme.

4 How to read the annexes**4.1 Classification tree**

In Annex A, the complete classification tree is given. Under the header '**Class**', the identifier of the class at that specific line is given, while under the header '**Class. DET**', on that line the identifier of the classifying data element type is given that has been used to define that class.

If relevant, under the header '**Drawing**' the identifier of the drawing related to the indicated '**Class**' is given.

4.2 Classes

For the classification of components¹ the principle of dividing the whole set of components into parts has been applied repeatedly, thereby creating a hierarchical tree of several levels of classes.

¹ The classification principles are also applicable to other entities like materials, packages, geometries, etc.

The goal of this classification scheme of components is to arrange the data element types in an unambiguous-structured way. A detailed description of the classification principles and the various attributes of the component class definitions are given in IEC 61360-1.

The various attributes of the component classes and the layout as used in this standard are explained with the aid of Figure 1a and Figure 1b. The class definitions are given in Annex B.

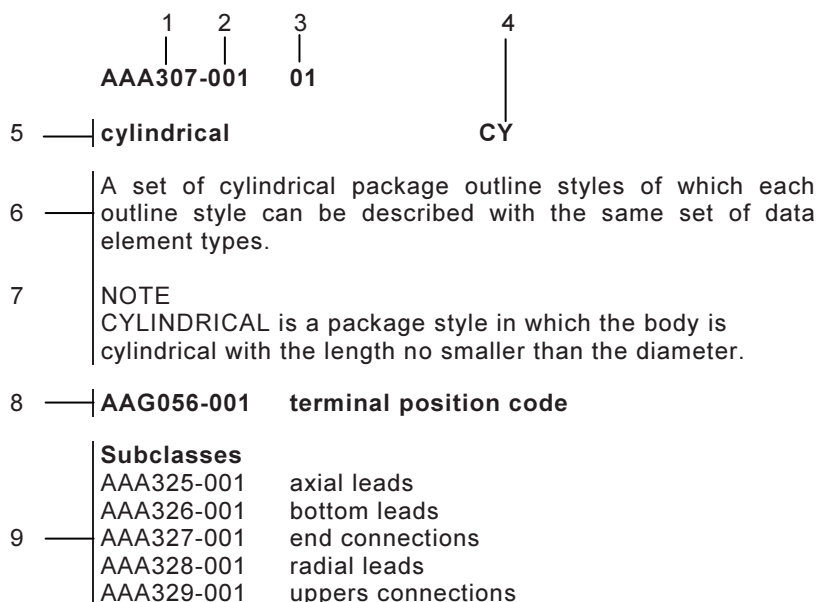


Figure 1a

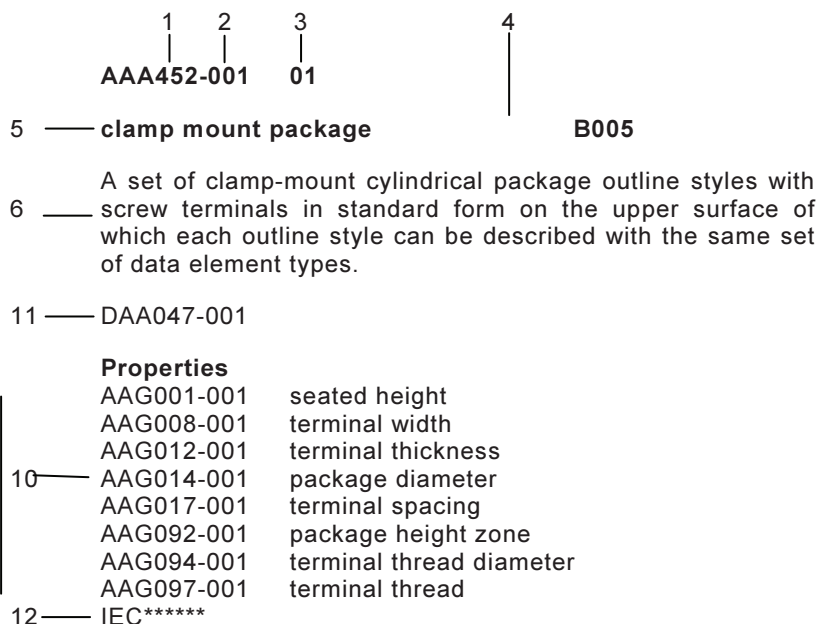


Figure 1b

- 1 Code
- 2 Version number
- 3 Revision number
- 4 Coded name
- 5 Preferred name
- 6 Definition
- 7 Note
- 8 Classifying data element type
- 10

- 9 Subclasses, identifier + preferred name
- 10 Applicable data element types, identifier + preferred name
- 11 Drawing reference, identifier
- 12 Source document of package class definition

Figure 1 – Component package class specification attributes

For the classification of the shapes of package outlines, the following three characteristics of the package according to the codes defined in IEC 60191-4 are used:

- outline style ;
- terminal position;
- terminal form.

Following these characteristics, four or five levels of classification are then defined. The codes used are given as informative annexes to this standard as follows :

- Clause G.1: level 1 : identified by the outline style codes from Table G.1;
- Clause G.2: level 2 : identified by the terminal position codes from Table G.2;
- Clause G.3: level 3 : identified by the terminal form codes from Table G.3;
- Clause G.4 level 4 : identified by the terminal variant codes from Table G.4; and
- Clause G.5: level 5 : (optional) identified by the body variant codes from Table G.5.

4.3 Data element types

Various attributes of the data element types and the layout as used in this standard are explained with the aid of Figure 2. For a detailed description of the various attributes of the data element type definitions, see IEC 61360-1.

The data element type definitions are given in Annex C.

14	1	2	3	16	10	12	15
	AAG031-001	01	Level miNoMax	NR3..3.3ES2	T03		
				real measure			11
4	terminal length			L_1			6
5	lead length			L ₁			7
8	The length (in m) as specified by level (miNoMax) of terminal available for mounting measured from the seating plane.						
9	NOTE L1 refers to that part of the terminal over which the diameter Øb1 is closely controlled.						
13	BS3934 issue 1 : 1975 DAE009-001 Lead lengths and diameters						

Figure 2a

14	1	2	3	16	10	12	15
	AAF307-005	01	Level miTypMax	NR3 S..3.3ES2 E25			
				real measure			11
4	Temp factor of permeability			\$a_F			6
5	Temp factor of reluctivity			α _F			7
8	Value as specified by level (miTypMax) of the negative of the change in the permeability due to a change in temperature, divided by that change in temperature (in K*-1) of a soft magnetic material at specified frequency.						
17	AAE029-005=frequency						
18	$\alpha_F = - \frac{\frac{1}{\mu_\theta} - \frac{1}{\mu_{ref}}}{\theta - \theta_{ref}} = \frac{\mu_\theta - \mu_{ref}}{\mu_\theta \mu_{ref} (\theta - \theta_{ref})}$						
	where μ_θ and μ_{ref} are the permeabilities at temperatures θ and θ_{ref} respectively						
13	IEC 60050(221) (1990)						

Figure 2b

1	Code	10	Value format
2	Version number	11	Unit of measure
3	Revision number	12	Data element type class
4	Preferred name	13	Source document of data element type definition
5	Synonymous name	14	Data type
6	Short name	15	Data value
7	Preferred letter symbol	16	Level
8	Definition	17	Condition
9	Note	18	Formula

Figure 2 – Data element type specification attributes

4.4 Drawings

A drawing illustrates the meaning of a class containing a group of data element types describing the geometrical characteristics of a component.

The various attributes of the drawings and the layout as used in this standard are explained with the aid of Figure 3. For a detailed description of the various attributes of the data element type definitions, see IEC 61360-1.

The drawing definitions are given in Clause D.1 while the drawing of the packages themselves are given in Clause D.2.

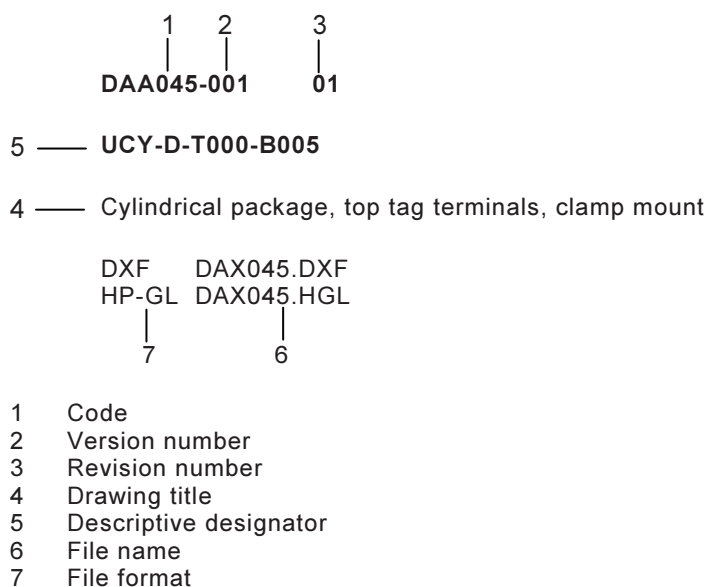


Figure 3 – Drawing specification attributes

4.5 Figures

A figure is an illustration that clarifies the meaning of the definition of a data element type.

The various attributes of the figure and the layout as used in this standard are explained with the aid of Figure 4. For a detailed description of the various attributes of the data element type definitions, see IEC 61360-1.

The figure definitions are given in Clause E.1 while the figures themselves are given in Clause E.2.

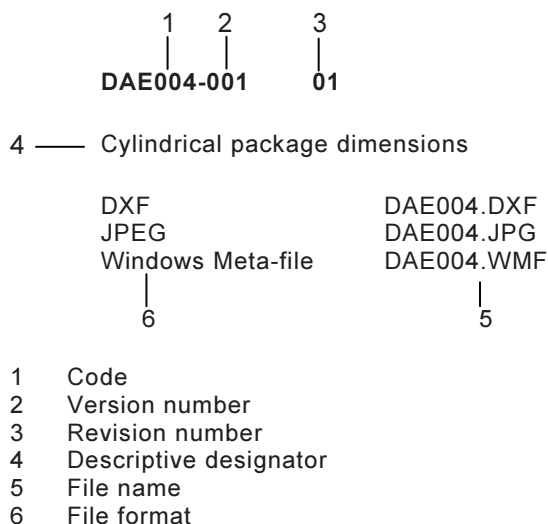


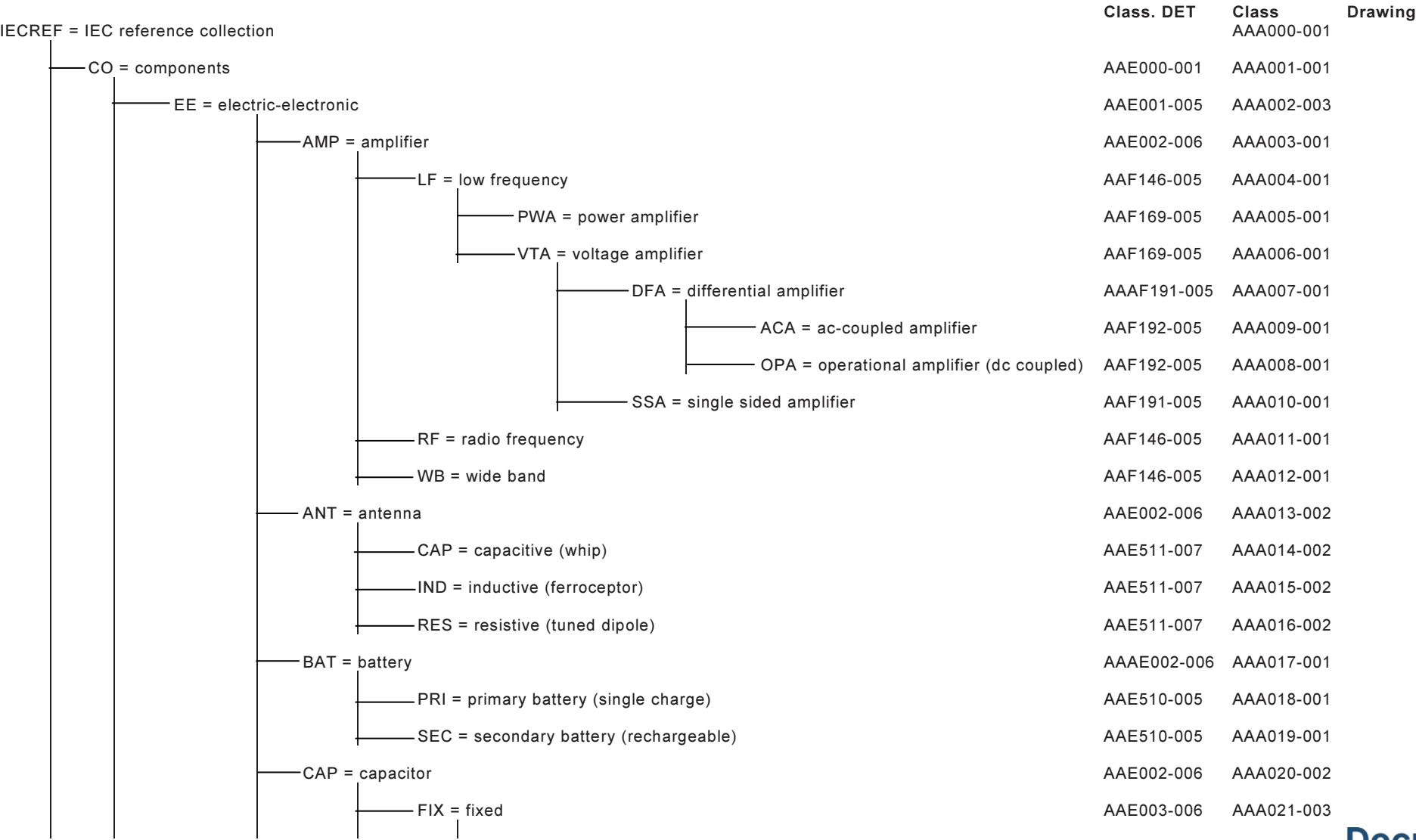
Figure 4 – Figure specification attributes

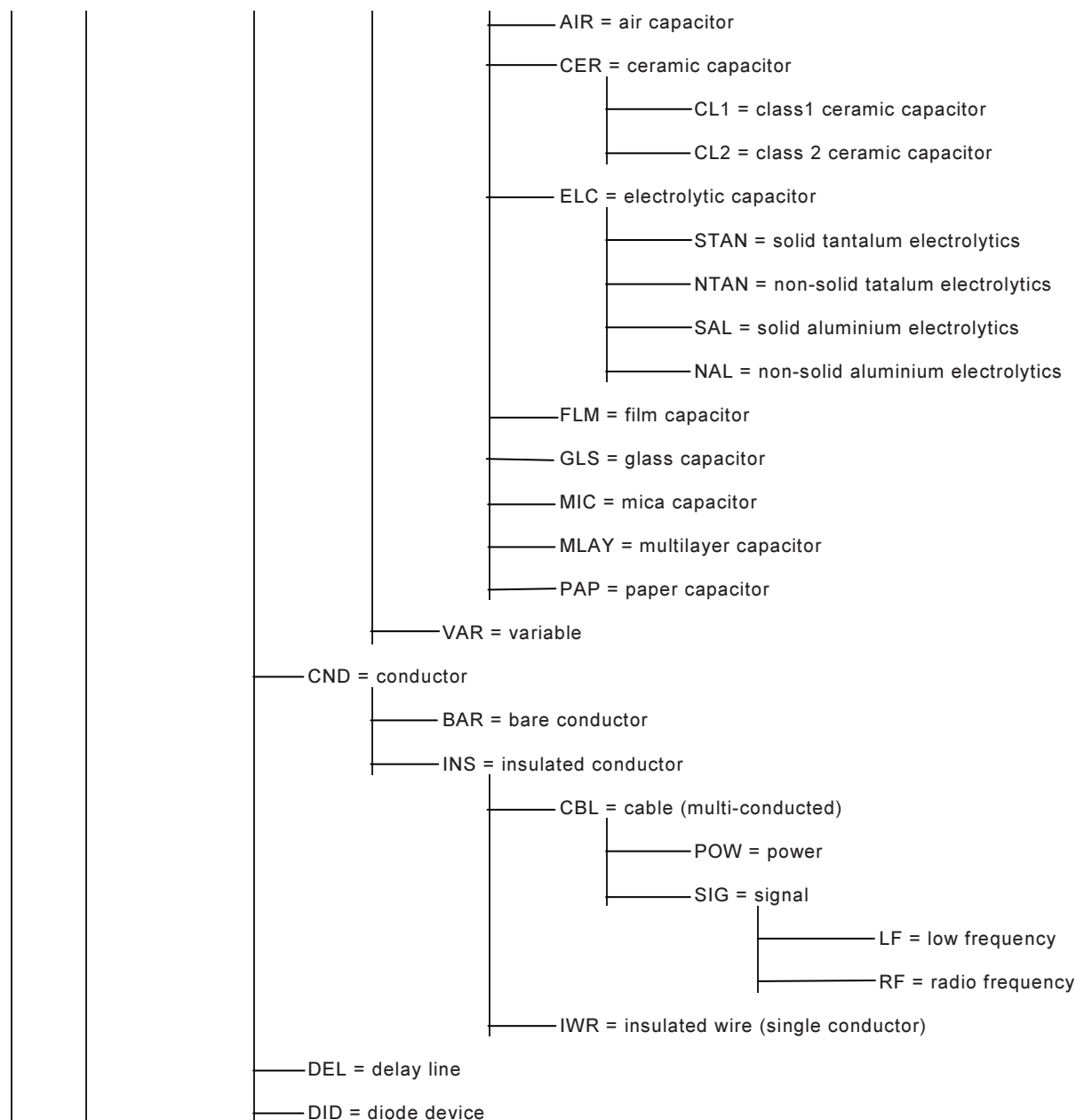
4.6 Index on keywords

To facilitate an easy way of searching, in Annex F an index on keywords from the preferred name of data element types and condition data element types is given. Here, the keywords are presented in tabular form with the keyword in the left column, the identifying code of the class of the data element type in which the keyword appears in the column on the right and the corresponding preferred name in the middle.

Annex A
(normative)

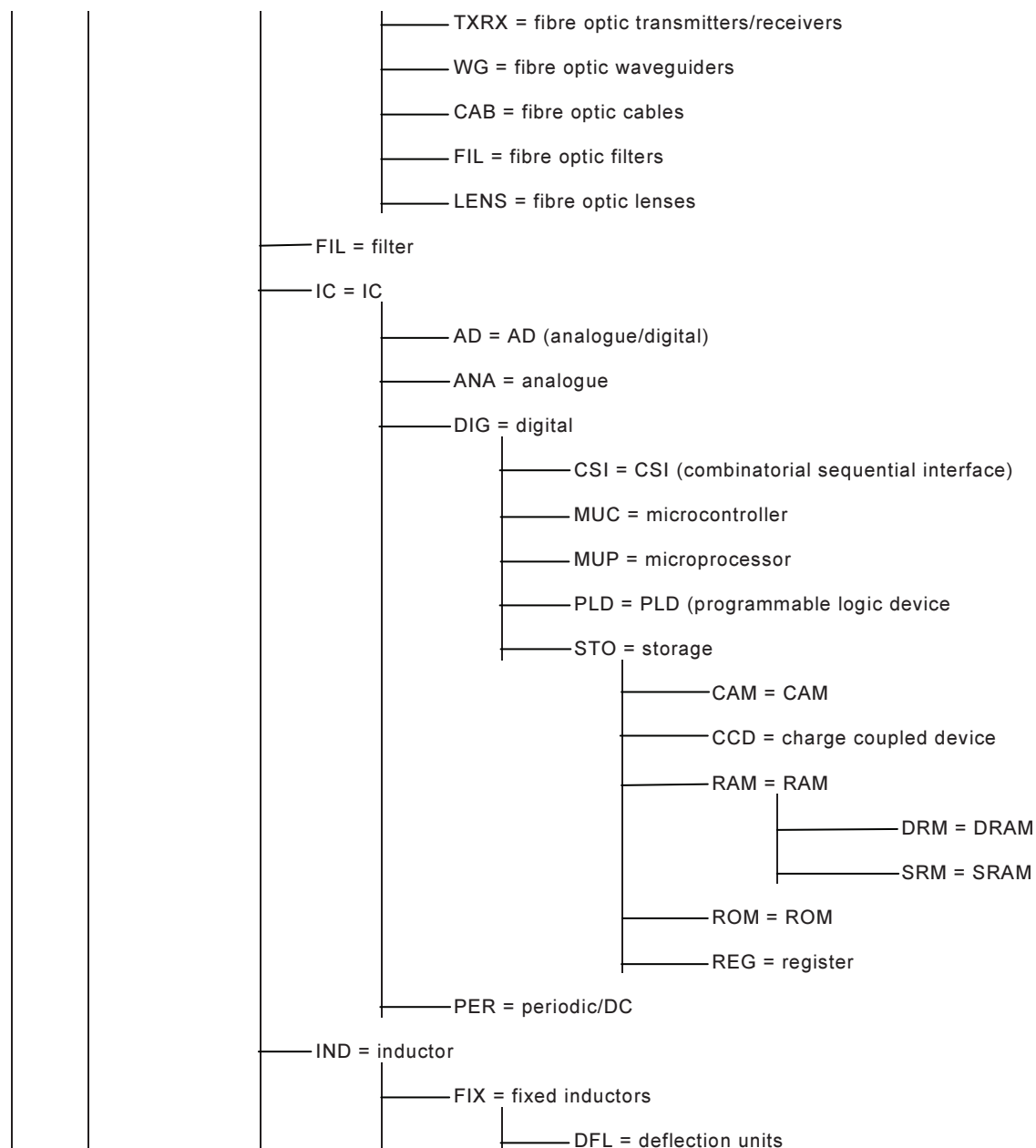
Classification scheme





Class. DET	Class	Drawing
AAE004-007	AAA022-001	
AAE004-007	AAA023-001	
AAE038-005	AAA024-001	
AAE038-004	AAA025-001	
AAE004-007	AAA026-002	
AAJ001-001	AAA501-001	
AAJ001-001	AAA502-001	
AAJ001-001	AAA503-001	
AAJ001-001	AAA504-001	
AAE004-007	AAA027-001	
AAE004-007	AAA028-001	
AAE004-007	AAA029-002	
AAE004-007	AAA505-001	
AAE004-007	AAA030-001	
AAE003-006	AAA031-002	
AAE002-006	AAA032-001	
AAF239-005	AAA033-001	
AAF239-005	AAA034-001	
AAF249-005	AAA035-005	
AAE152-005	AAA036-001	
AAE152-005	AAA037-001	
AAF146-005	AAA038-001	
AAF146-005	AAA39-001	
AAF249-005	AAA040-001	
AAE002-006	AAA041-001	
AAE002-006	AAA042-001	

	Class. DET	Class	Drawing
BRI = bridge rectifier	AAF305-005	AAA043-001	
DIO = diode	AAF305-005	AAA044-001	
BOD = breakover diode	AAE273-007	AAA045-001	
REC = rectifier diode	AAE273-007	AAA046-001	
SIG = signal diode	AAE273-007	AAA047-002	
STB = stabilizer diode	AAE273-007	AAA048-001	
CUR = current regulator diode	AAE312-005	AAA049-001	
REF = voltage reference diode	AAE312-005	AAA050-001	
REG = voltage regulator diode	AAE312-005	AAA051-001	
STA = stabistor	AAE312-005	AAA052-001	
SUP = transient suppressor diode	AAE312-005	AAA053-001	
VAR = variable diode	AAE273-007	AAA054-002	
VMP = voltage multiplier	AAF305-005	AAA055-001	
FIBOPTIC = fibre optics	AAE002-006	AAA578-001	
LINKS = fibre optic links	AAJ048-001	AAA579-001	
CONN = fibre optic connectors)	AAJ048-001	AAA580-001	
SWI = fibre optic switches	AAJ048-001	AAA581-001	
BRA = fibre optic branches	AAJ048-001	AAA582-001	
COUP = fibre optic couplers/splicers	AAJ048-001	AAA583-001	
ATT = fibre optic attenuators	AAJ048-001	AAA584-001	
DET = fibre optic detectors	AAJ048-001	AAA585-001	
ISOL = fibre optic isolators	AAJ048-001	AAA586-001	
NETW = fibre optic networks	AAJ048-001	AAA587-001	
SOURC = fibre optic light sources	AAJ048-001	AAA588-001	
MOD = fibre optic modulators	AAJ048-001	AAA589-001	

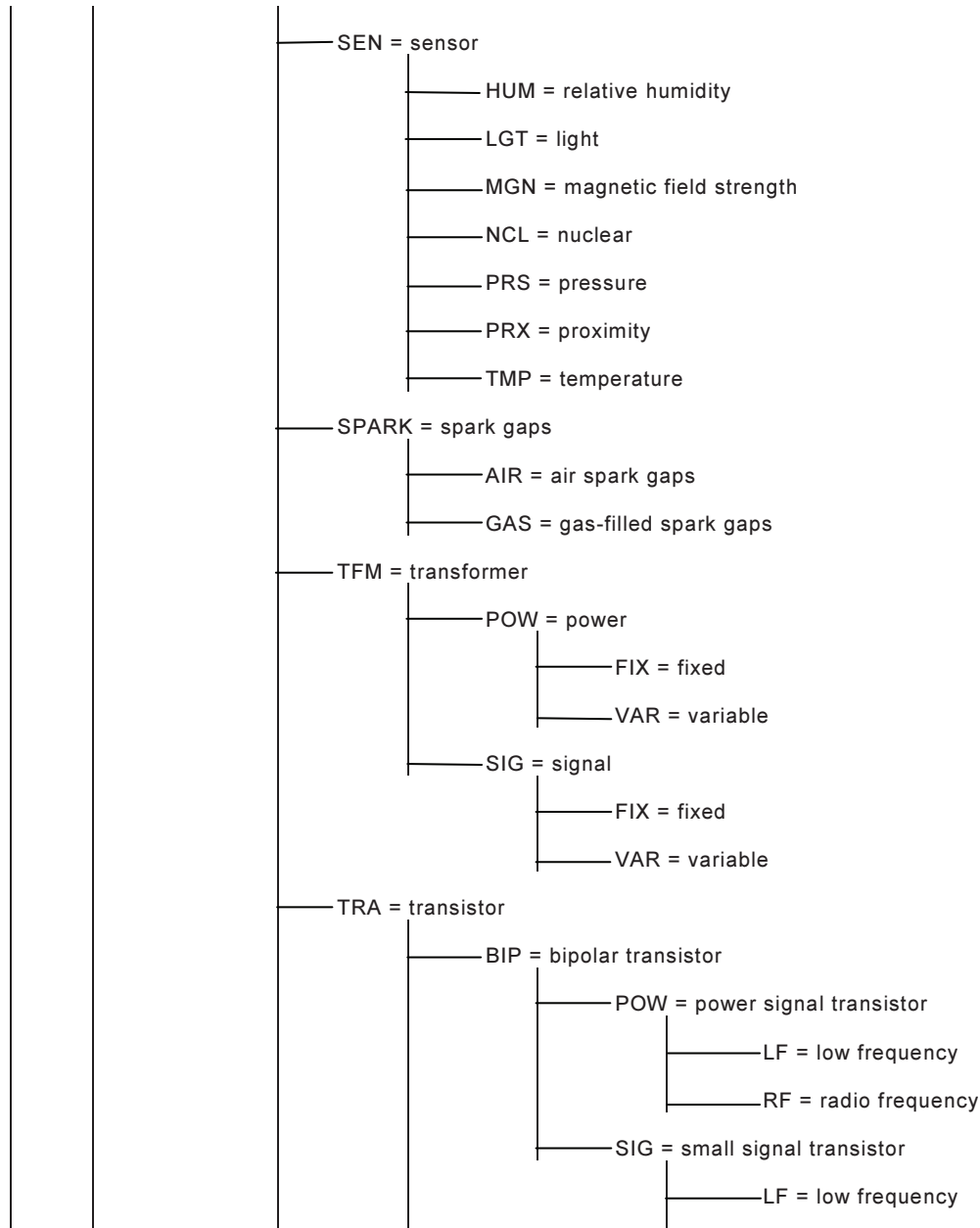


Class. DET	Class	Drawing
AAJ048-001	AAA590-001	
AAJ048-001	AAA591-001	
AAJ048-001	AAA592-001	
AAJ048-001	AAA593-001	
AAJ048-001	AAA594-001	
AAE002-006	AAA056-002	
AAE002-006	AAA057-001	
AAE077-005	AAA072-001	
AAE077-005	AAA058-001	
AAE077-005	AAA059-001	
AAE085-005	AAA060-001	
AAE085-005	AAA061-001	
AAE085-005	AAA062-001	
AAE085-005	AAA063-001	
AAE085-005	AAA064-002	
AAE722-007	AAA065-001	
AAE722-007	AAA066-001	
AAE722-007	AAA067-001	
AAF233-005	AAA068-001	
AAF233-005	AAA069-001	
AAE722-007	AAA070-001	
AAE722-007	AAA071-002	
AAE077-005	AAA073-001	
AAE002-006	AAA074-002	
AAE003-006	AAA601-001	
AAF390-002	AAA225-001	

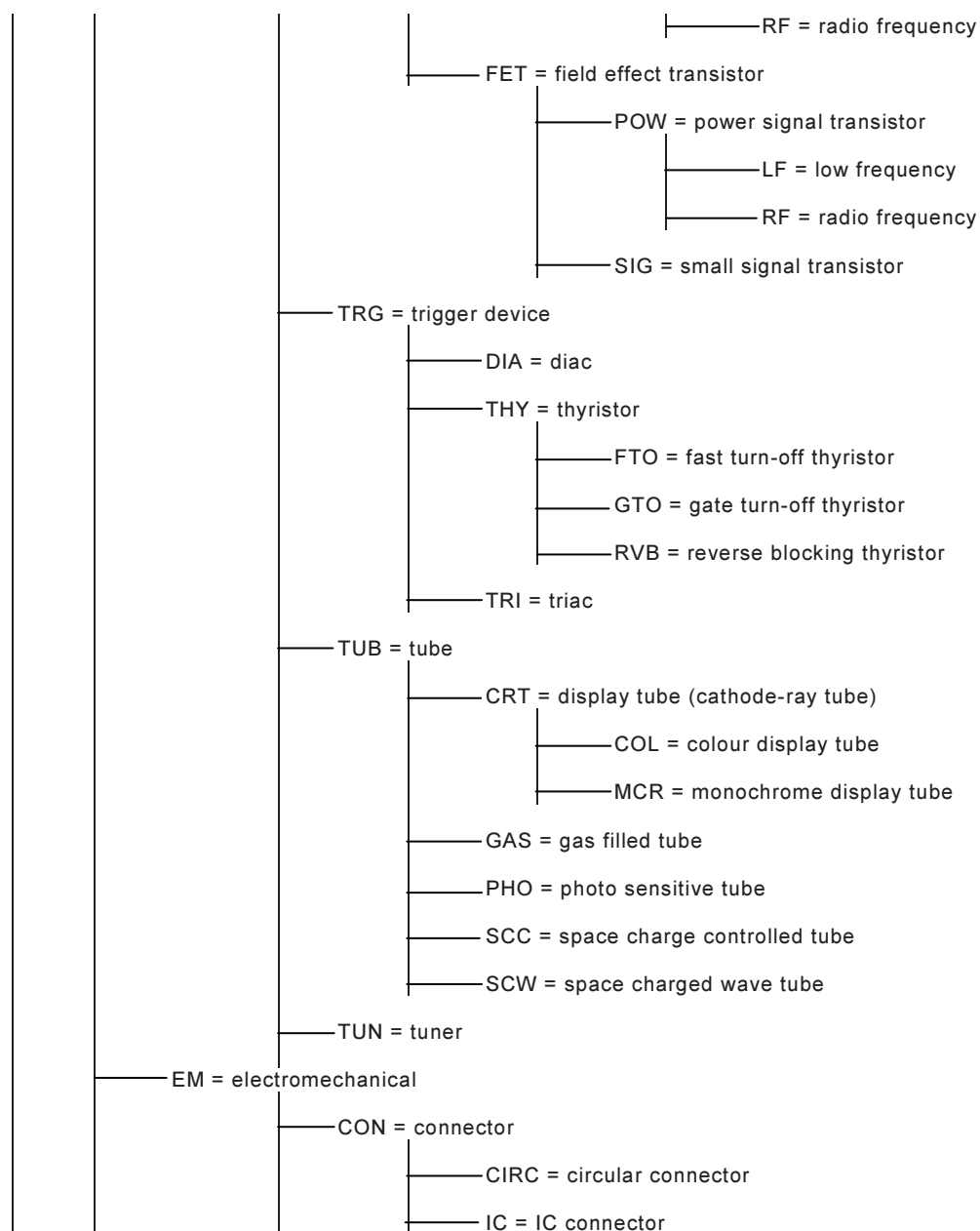
				CHOKE = choke
				COIL = coil
				LINUNIT = linearity control unit
				ANT = antenna inductors
				SOL = solenoids
			VAR = variable inductors	
	LAM = lamp			
	LCD = liquid crystal display			
	MIC = microwave component			
	OPT = optoelectronic device			
			IMAGE = image pickup devices	
			PHC = photocoupler	
			PHE = photoemitter	
				IRD = infrared emitting diode
				LAS = laser
				LED = LED
			PHS = photosensor	
				IR = infrared sensor
				U = ultraviolet radiation
				VIS = visible radiation
	OSC = oscillator			
	PE = piezoelectric device			
	PWC = printed wiring circuit			
	RES = resistor			
			FIX = fixed	

Class. DET	Class	Drawing
AAF390-002	AAA226-001	
AAF390-002	AAA227-001	
AAF390-002	AAA228-001	
AAF390-002	AAA603-001	
AAF390-002	AAA604-001	
AAE003-006	AAA602-001	
AAE002-006	AAA075-001	
AAE002-006	AAA076-001	
AAE002-006	AAA229-001	
AAE002-006	AAA077-002	
AAE545-006	AAA597-001	
AAE545-006	AAA078-001	
AAE545-006	AAA079-001	
AAE555-005	AAA081-001	
AAE555-005	AAA082-001	
AAE555-005	AAA080-001	
AAE545-006	AAA083-001	
AAE566-005	AAA084-001	
AAE566-005	AAA085-001	
AAE566-005	AAA086-001	
AAE002-006	AAA087-001	
AAE002-006	AAA088-001	
AAE002-006	AAA232-001	
AAE002-006	AAA089-002	
AAE003-006	AAA090-002	

	Class. DET	Class	Drawing
LIN = linear	AAE114-007	AAA091-002	
MUL = linear resistor networks	AAF101-006	AAA093-002	
SIN = single linear resistors	AAF101-006	AAA092-002	
CHIP = fixed chip resistor	AAJ003-001	AAA512-001	
FUS = fixed fusing resistor	AAJ003-001	AAA514-001	
LP = fixed low power resistor	AAJ003-001	AAA511-001	
PREC = fixed precision resistor	AAJ003-001	AAA509-001	
PWR = fixed power resistor	AAJ003-001	AAA510-001	
THERM = linear positive temperature coefficient resistor	AAJ003-001	AAA513-001	
NLN = non-linear	AAE114-007	AAA094-001	
LDR = light dependent resistor	AAE122-005	AAA095-001	
TDR = thermistor (temperature)	AAE122-005	AAA096-002	
NTC = NTC	AAE126-005	AAA097-001	
PTC = PTC	AAE126-005	AAA098-002	
VDR = varistor (voltage)	AAE122-005	AAA099-001	
VAR = variable	AAE003-006	AAA100-003	
POT = potentiometer (3 or more terminals)	AAE139-005	AAA102-002	
PRESET = preset potentiometer	AAJ006-002	AAA516-002	
PRECROT = rotary precision potentiometer	AAJ006-002	AAA607-001	
SLIDE = slide potentiometer	AAJ006-002	AAA517-001	
LPROT = low-power rotary potentiometer	AAJ006-002	AAA609-001	
PWRROT = power rotary potentiometer	AAJ006-002	AAA608-001	
TT = two terminal variable resistor	AAE139-005	AAA101-001	
RESON = resonators	AAE002-006	AAA596-001	



Class. DET	Class	Drawing
AAE002-006	AAA103-001	
AAE892-005	AAA104-001	
AAE892-005	AAA105-001	
AAE892-005	AAA106-001	
AAE892-005	AAA107-001	
AAE892-005	AAA108-001	
AAE892-005	AAA109-001	
AAE892-005	AAA110-001	
AAE002-006	AAA595-001	
AAJ081-001	AAA605-001	
AAJ081-001	AAA606-001	
AAE002-006	AAA111-001	
AAE152-001	AAA112-001	
AAE003-006	AAA113-001	
AAA114-001	AAA114-001	
AAE152-001	AAA115-002	
AAE003-006	AAA116-001	
AAE003-006	AAA117-001	
AAE002-006	AAA118-001	
AAE401-001	AAA119-002	
AAE971-007	AAA120-002	
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AAE971-007	AAA123-002	
AAF146-005	AAA124-001	



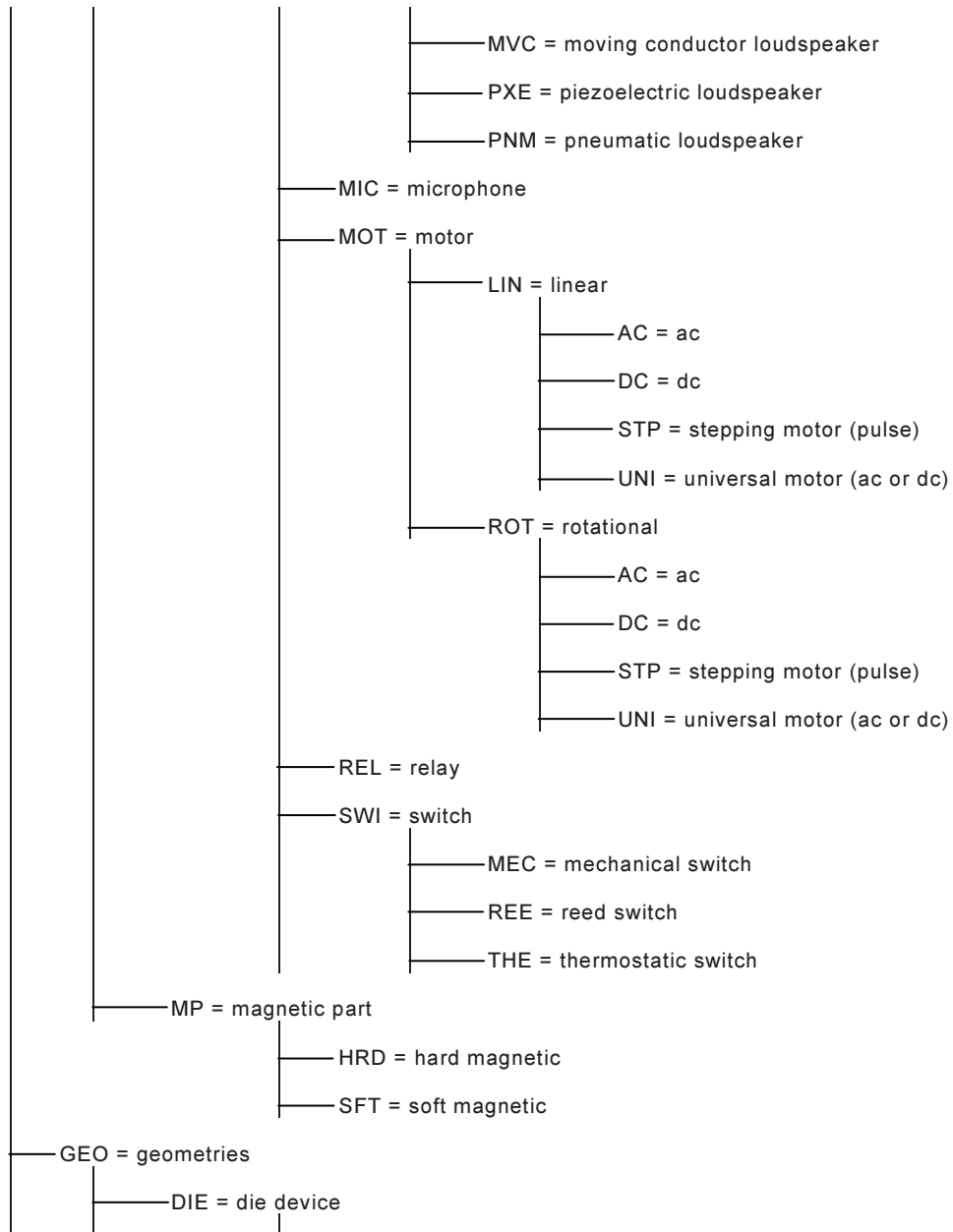
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AAF146-005	AAA125-001	
AAE401-001	AAA126-002	
AAE971-007	AAA127-002	
AAF146-005	AAA128-001	
AAF146-005	AAA129-001	
AAE971-007	AAA130-002	
AAE002-006	AAA131-001	
AAE724-005	AAA132-001	
AAE724-005	AAA133-001	
AAE743-005	AAA134-001	
AAE743-005	AAA135-001	
AAE743-005	AAA136-001	
AAE724-005	AAA137-001	
AAE002-006	AAA138-001	
AAE696-005	AAA139-001	
AAF202-005	AAA140-001	
AAF202-005	AAA141-002	
AAE696-005	AAA142-001	
AAE696-005	AAA142-001	
AAE696-005	AAA142-001	
AAE696-005	AAA142-001	
AAE002-006	AAA146-001	
AAE001-005	AAA147-003	
AAE060-006	AAA148-002	
AAE349-006	AAA518-001	
AAE349-006	AAA522-001	

JACK = plug and jack
ASSY = plug assemblies
CMPLX = complex jack boards
CONC = concentric plug and jack
JACK = concentric jack
MULT = multiple concentric plug
PLUG = concentric plug
PIN = pin plug and jack
JACK = pin jack
MULT = pin multiple jack
PIN = pin plug
SHLD = shielded pin jack
PWR = plug and jack for d.c. power
CAR = car plug
JACK = dc power jack
PLUG dc power plug
MOD = modular connector
PCB = printed circuit board
RECT = rectangular connector
RF = RF connector
SOCK = sockets
ANT = socket for antenna feeder
FUSE = fuse holder and socket
IC = socket for integrated circuits
LIGHT = lighting socket

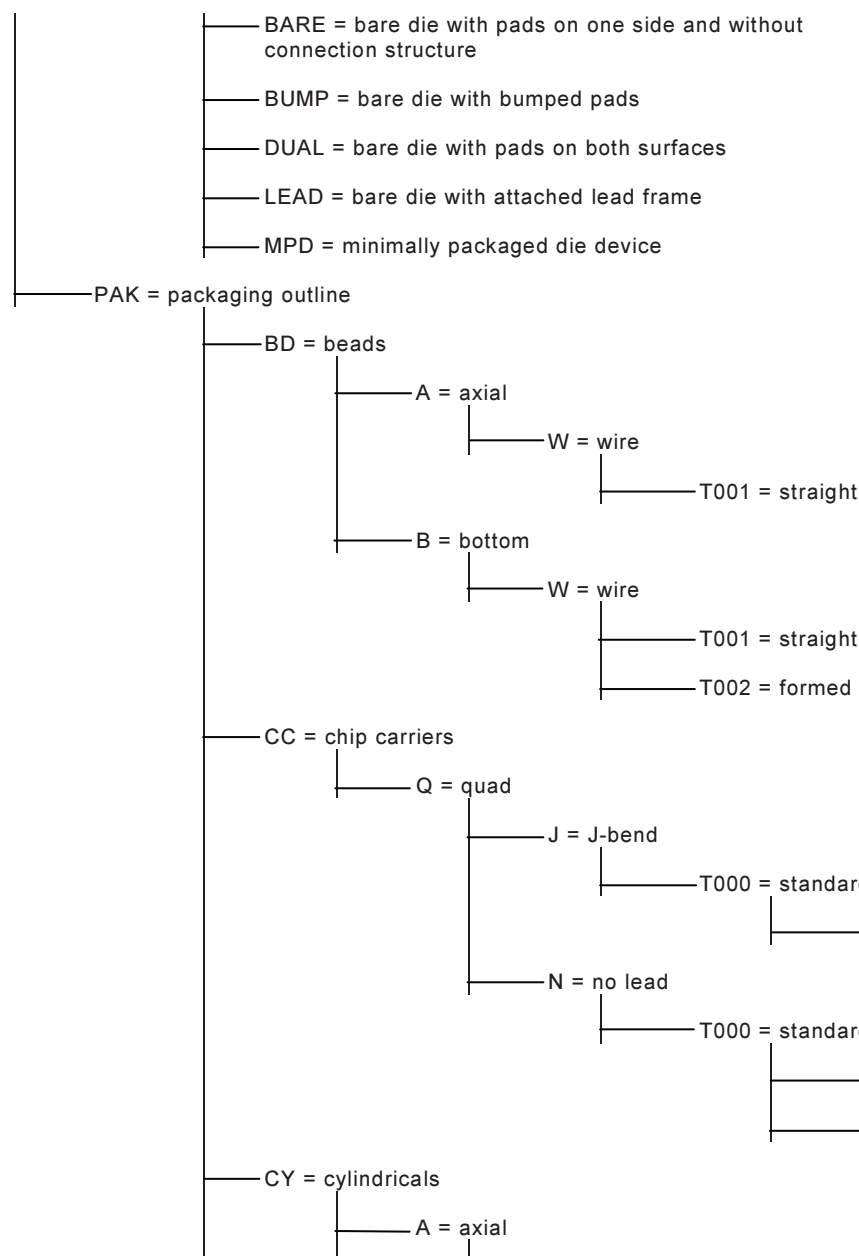
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AAE349-006	AAA526-001	
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AAJ024-001	AAA550-001	
AAJ024-001	AAA536-001	
AAJ025-001	AAA538-001	
AAJ025-001	AAA539-001	
AAJ025-001	AAA537-001	
AAJ024-001	AAA540-001	
AAJ026-001	AAA542-001	
AAJ026-001	AAA543-001	
AAJ026-001	AAA541-001	
AAJ026-001	AAA544-001	
AAJ024-001	AAA545-001	
AAJ027-001	AAA548-001	
AAJ027-001	AAA547-001	
AAJ027-001	AAA546-001	
AAE349-006	AAA523-001	
AAE349-006	AAA520-001	
AAE349-006	AAA519-001	
AAE349-006	AAA521-001	
AAE349-006	AAA527-001	
AAJ028-001	AAA565-001	
AAJ028-001	AAA564-001	
AAJ028-001	AAA555-001	
AAJ028-001	AAA563-001	

				PCB = socket for PCB
				PWR = power socket
				SIG = signal socket
				TRA = transistor socket
				TUBE = socket for tube
				XTAL = socket for quartz cristal
			TERM = terminals	
				ARRY = terminal array
				BRD = terminal board
				ROD = terminal rod
				SM = small terminals
		CONPART = connector part		
			CONTACT = connector contact	
			ACCY = connector accessoires	
			TOOL = connector tool	
			SHELL = connector shell	
			INSERT = connector insert	
		FUS = fuse		
			CUR current activated fuse	
			TERM = thermally activated fuse	
		LSP = loudspeaker		
			ELM = electromagnetic loudspeaker	
			ELS = electrostatic loudspeaker	
			ION = ionic loudspeaker	
			MGD = magnetodynamic loudspeaker	
			MGS = magnetostrictive loudspeaker	

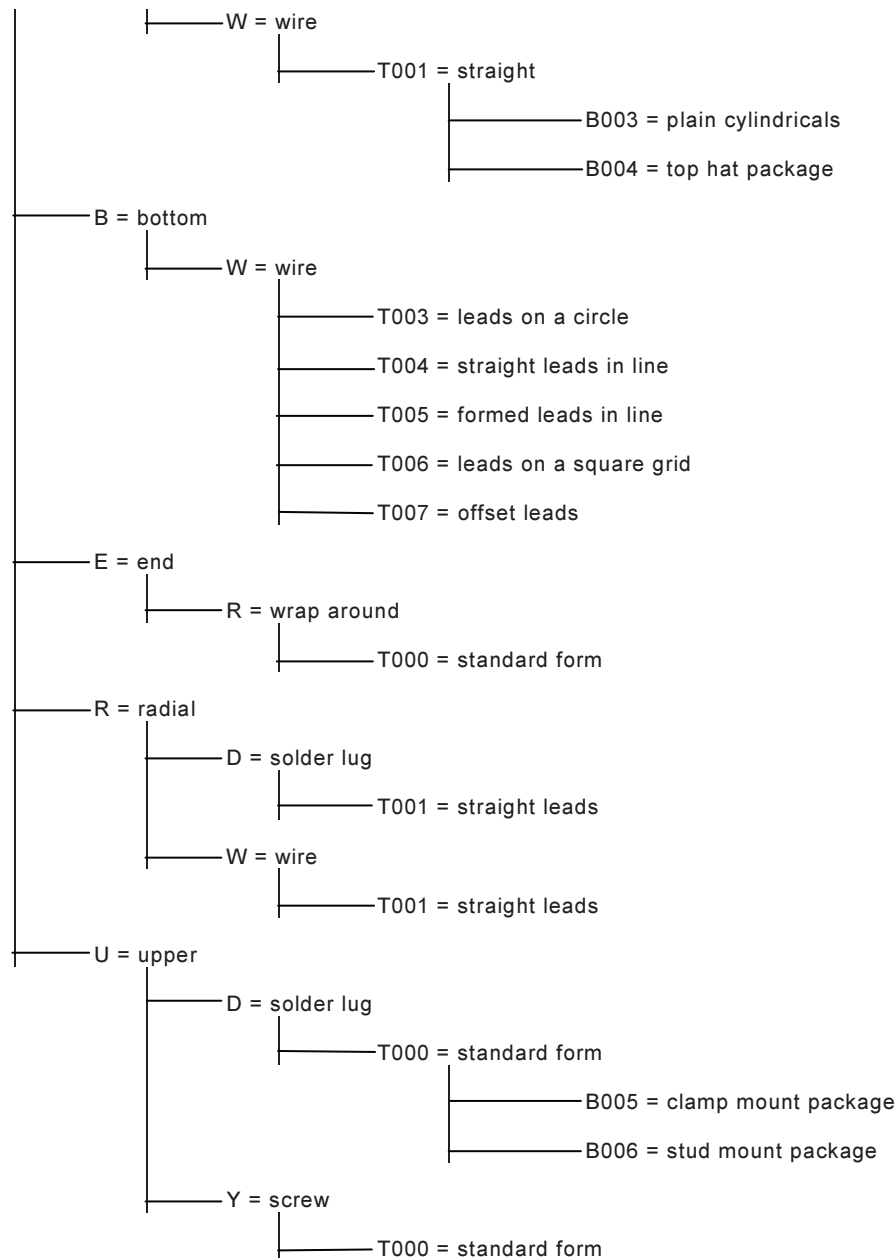
Class. DET	Class	Drawing
AAJ028-001	AAA556-001	
AAJ028-001	AAA557-001	
AAJ028-001	AAA561-001	
AAJ028-001	AAA554-001	
AAJ028-001	AAA551-001	
AAJ028-001	AAA562-001	
AAE349-006	AAA528-001	
AAJ031-001	AAA569-001	
AAJ031-001	AAA572-001	
AAJ031-001	AAA573-001	
AAJ031-001	AAA566-001	
AAE060-006	AAA610-001	
AAF464-001	AAA524001	
AAF464-001	AAA525-001	
AAF464-001	AAA611-001	
AAF464-001	AAA612-001	
AAF464-001	AAA613-001	
AAE060-006	AAA149-002	
AAJ012-002	AAA575-001	
AAJ012-002	AAJ576-001	
AAE060-006	AAA150-001	
AAE005-006	AAA154-001	
AAE005-006	AAA157-001	
AAE005-006	AAA153-001	
AAE005-006	AAA152-001	
AAE005-006	AAA158-001	



Class. DET	Class	Drawing
AAE005-006	AAA151-001	
AAE005-006	AAA156-001	
AAE005-006	AAA155-001	
AAE060-006	AAA159-001	
AAE060-006	AAA160-005	
AAE179-005	AAA161-001	
AAE178-005	AAA162-001	
AAE178-005	AAA163-001	
AAE178-005	AAA164-001	
AAE178-005	AAA165-001	
AAE179-001	AAA166-001	
AAE178-005	AAA167-001	
AAE178-005	AAA168-001	
AAE178-005	AAA169-001	
AAE178-005	AAA170-001	
AAE060-006	AAA171-001	
AAE60-005	AAA172-001	
AAE926-005	AAA174-002	
AAE926-005	AAA173-001	
AAE926-005	AAA175-001	
AAE001-005	AAA215-001	
AAE759-005	AAA216-001	
AAE759-005	AAA217-001	
AAE000-001	AAA301-001	
AAG000-001	AAA302-001	

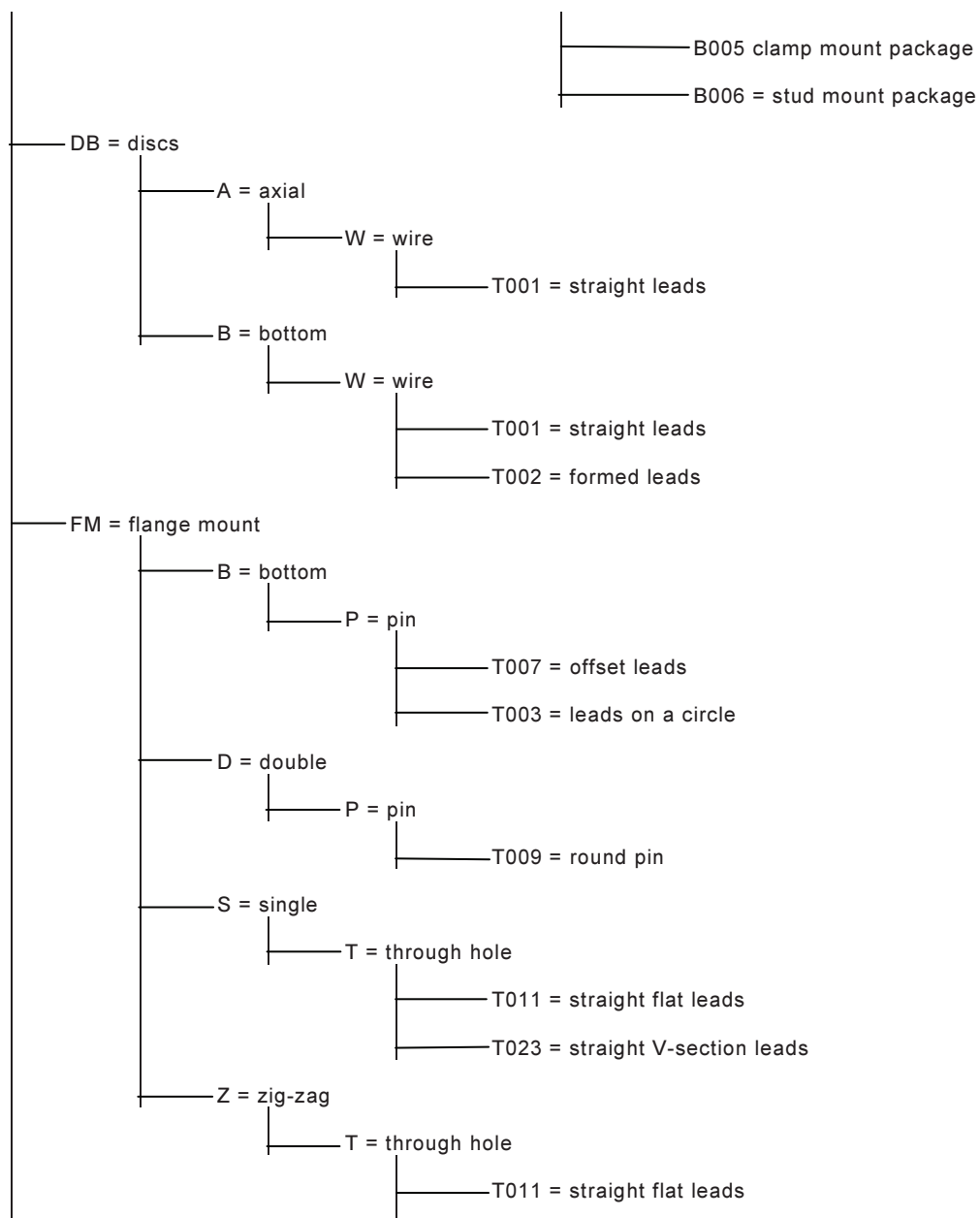


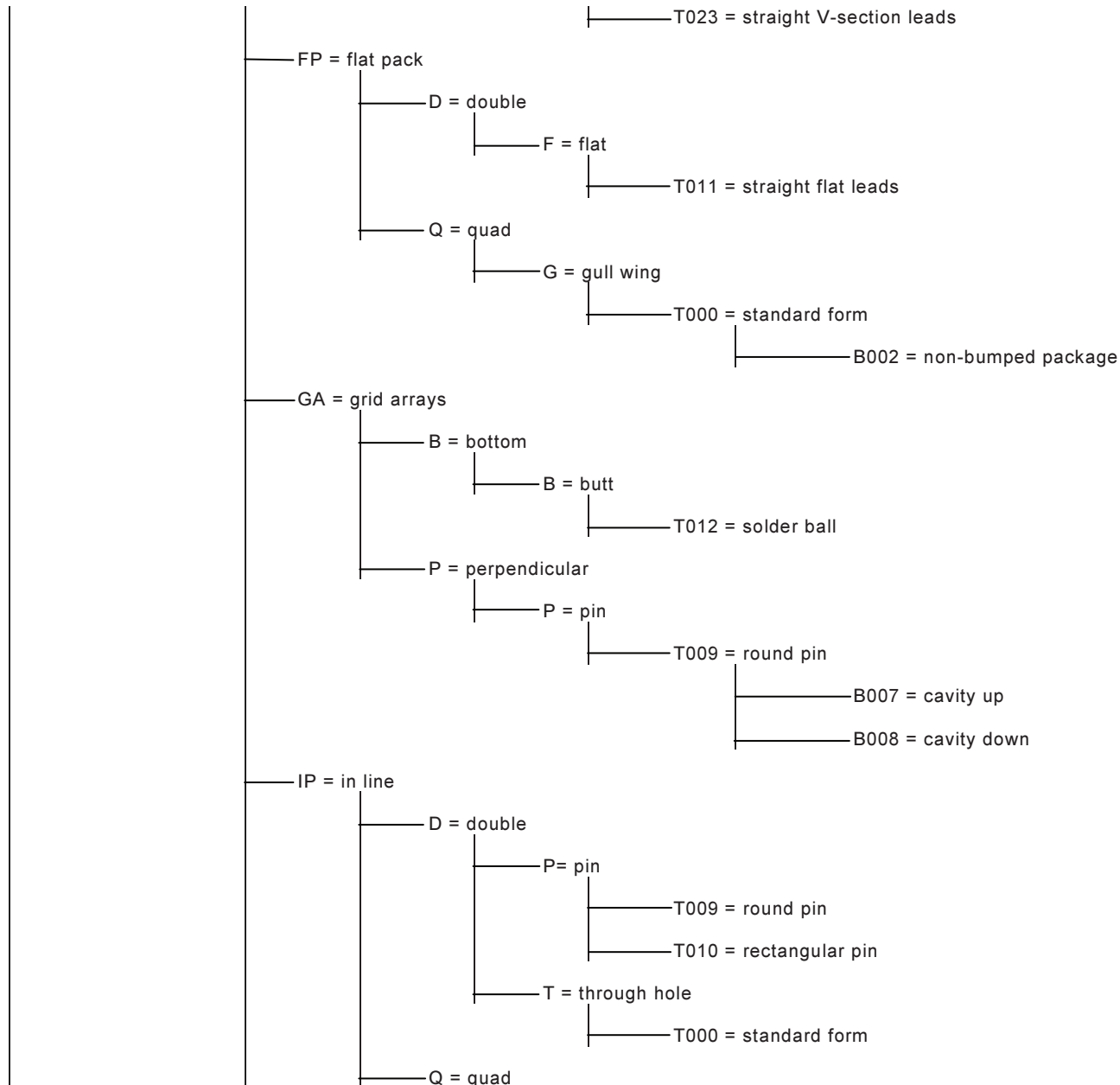
Class. DET	Class	Drawing
AAD004-001	AAA295-001	
AAD004-001	AAA296-001	
AAD004-001	AAA299-001	
AAD004-001	AAA297-001	
AAD004-001	AAA298-001	
AAG000-001	AAA303-001	
AAG057-001	AAA304-001	
AAG056-001	AAA322-001	
AAG058-001	AAA353-001	
AAG054-001	AAA391-001	DAA001-001
AAG056-001	AAA323-001	
AAG058-001	AAA354-001	
AA9054-001	AAA392-001	DAA002-001
AAG054-001	AAA393-001	DAA003-001
AAG057-001	AAA305-001	
AAG056-001	AAA324-001	
AAG058-001	AAA355-001	
AAG054-001	AAA394-001	
AAG055-001	AAA445-001	DAA040-001
AAG058-001	AAA356-001	
AAG054-001	AAA395-001	
AAG055-001	AAA446-001	DAA041-001
AAG055-001	AAA447-001	DAA042-001
AAG057-001	AAA307-001	
AAG056-001	AAA325-001	



Class. DET	Class	Drawing
AAG058-001	AAA357-001	
AAG054-001	AAA396-001	
AAG055-001	AAA448-001	DAA043-001
AAG055-001	AAA449-001	DAA044-001
AAG056-001	AAA326-001	
AAG058-001	AAA358-001	
AAG054-001	AAA397-001	DAA004-001
AAG054-001	AAA398-001	DAA005-001
AAG054-001	AAA399-001	DAA006-001
AAG054-001	AAA400-001	DAA007-001
AAG054-001	AAA401-001	DAA008-001
AAG056-001	AAA327-001	
AAG058-001	AAA359-001	
AAG054-001	AAA402-001	DAA009-001
AAG056-001	AAA328-001	
AAG058-001	AAA360-001	
AAG054-001	AAA402-001	DAA010-001
AAG058-001	AAA361-001	
AAG054-001	AAA404-001	DAA011-001
AAG056-001	AAA329-001	
AAG058-001	AAA362-001	
AAG054-001	AAA405-001	
AAG055-001	AAA450-001	DAA045-001
AAG055-001	AAA451-002	DAA046-002
AAG058-001	AAA363-001	
AAG054-001	AAA406-001	

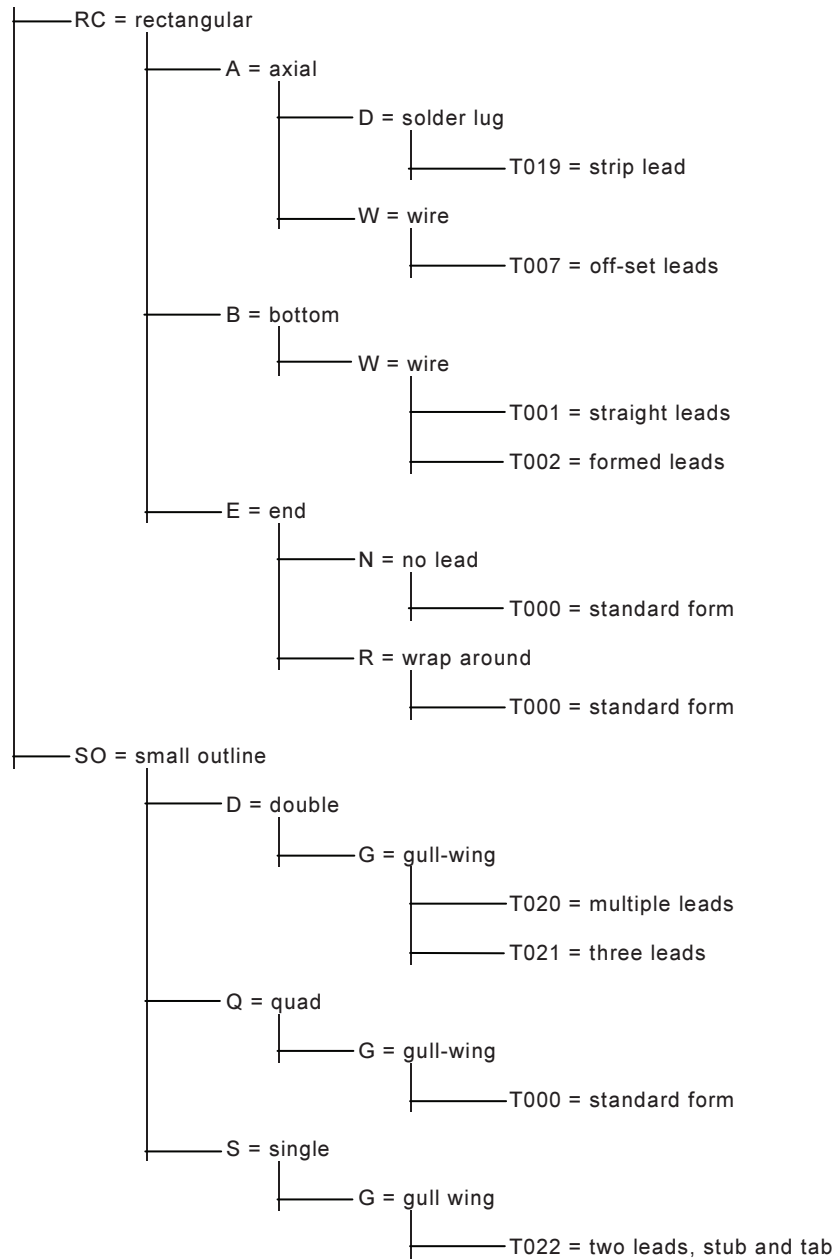
Class. DET	Class	Drawing
AAG055-001	AAA452-001	DAA047-001
AAG055-001	AAA453-002	DAA048-002
AAG057-001	AAA308-001	
AAG056-001	AAA330-001	
AAG058-001	AAA364-001	
AAG054-001	AAA407-001	DAA012-001
AAG056-001	AAA331-001	
AAG058-001	AAA365-001	
AAG054-001	AAA408-001	DAA013-001
AAG054-001	AAA409-001	DAA014-001
AAG057-001	AAA309-001	
AAG056-001	AAA332-001	
AAG058-001	AAA366-001	
AAG054-001	AAA410-001	DAA015-001
AAG054-001	AAA411-001	DAA016-001
AAG056-001	AAA333-001	
AAG058-001	AAA367-001	
AAG054-001	AAA412-001	DAA017-001
AAG056-001	AAA334-001	
AAG058-001	AAA368-001	
AAG054-001	AAA413-001	DAA018-001
AAG054-001	AAA414-001	DAA019-001
AAG056-001	AAA335-001	
AAG058-001	AAA369-001	
AAG054-001	AAA415-001	



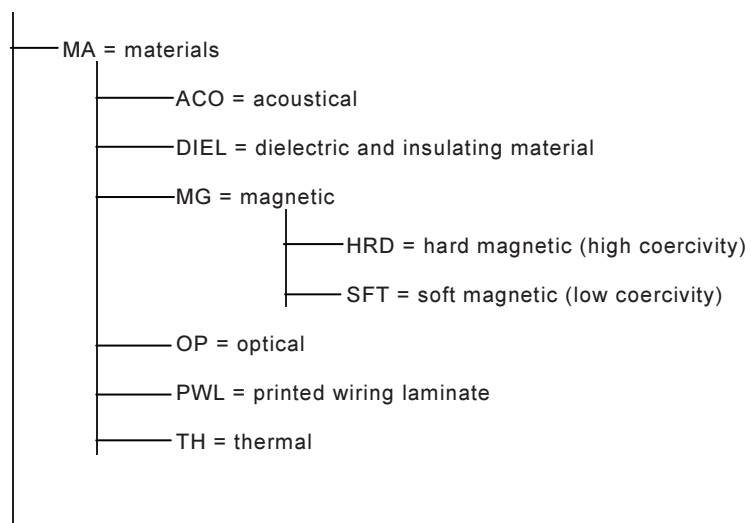


Class. DET	Class	Drawing
AAG054-001	AAA416-001	
AAG057-001	AAA311-001	
AAG056-001	AAA336-001	
AAG058-001	AAA370-001	
AAG054-001	AAA417-001	DAA020-001
AAG056-001	AAA337-001	
AAG058-001	AAA371-001	
AAG054-001	AAA418-001	
AAG055-001	AAA454-001	DAA049-001
AAG057-001	AAA312-001	
AAG056-001	AAA338-001	
AAG058-001	AAA372-001	
AAG054-001	AAA419-001	DAA021-001
AAG056-001	AAA339-001	
AAG058-001	AAA373-001	
AAG054-001	AAA420-001	
AAG055-001	AAA455-001	DAA050-001
AAG055-001	AAA456-001	DAA051-001
AAG057-001	AAA313-001	
AAG056-001	AAA340-001	
AAG058-001	AAA374-001	
AAG054-001	AAA421-001	DAA022-001
AAG054-001	AAA422-001	DAA023-001
AAG058-001	AAA375-001	
AAG054-001	AAA423-001	DAA024-001
AAG056-001	AAA341-001	

Class. DET	Class	Drawing
AAG058-001	AAA376-001	
AAG054-001	AAA424-001	
AAG056-001	AAA342-001	
AAG058-001	AAA377-001	
AAG054-001	AAA425-001	
AAG056-001	AAA343-001	
AAG058-001	AAA378-001	
AAG054-001	AAA426-001	
AAG056-001	AAA344-001	
AAG058-001	AAA379-001	
AAG054-001	AAA427-001	
AAG057-001	AAA314-001	
AAG056-001	AAA345-001	
AAG058-001	AAA380-001	
AAG054-001	AAA428-001	
AAG057-001	AAA318-001	
AAG056-001	AAA346-001	
AAG058-001	AAA381-001	
AAG054-001	AAA429-002	DAA025-002
AAG054-001	AAA430-002	DAA026-002
AAG058-001	AAA382-001	
AAG054-001	AAA431-002	DAA027-002
AAG054-001	AAA432-002	DAA028-002
AAG054-001	AAA433-002	DAA029-002
AAG054-001	AAA434-002	DAA030-002



Class. DET	Class	Drawing
AAG057-001	AAA319-001	
AAG056-001	AAA347-001	
AAG058-001	AAA383-001	
AAG054-001	AAA435-001	DAA031-001
AAG058-001	AAA384-001	
AAG054-001	AAA436-001	DAA032-001
AAG056-001	AAA348-001	
AAG058-001	AAA385-001	
AAG054-001	AAA437-001	DAA033-001
AAG054-001	AAA438-001	DAA034-001
AAG056-001	AAA349-001	
AAG058-001	AAA386-001	
AAG054-001	AAA439-001	DAA035-001
AAG058-001	AAA387-001	
AAG054-001	AAA440-001	DAA036-001
AAG057-001	AAA320-001	
AAG056-001	AAA350-001	
AAG058-001	AAA388-001	
AAG054-001	AAA441-001	DAA037-001
AAG054-001	AAA442-001	DAA038-001
AAG056-001	AAA351-001	
AAG058-001	AAA389-001	
AAG054-001	AAA443-001	
AAG056-001	AAA352-001	
AAG058-001	AAA390-001	
AAG054-001	AAA444-001	DAA039-001



Class. DET	Class	Drawing
AAE000-001	AAA218-001	
AAF311-007	AAA219-001	
AAF311-007	AAA231-001	
AAF311-007	AAA220-001	
AAE759-005	AAA221-001	
AAE759-005	AAA222-001	
AAF311-006	AAA223-001	
AAF311-007	AAA230-001	
AAF311-007	AAA224-001	

Annex B (normative) Class definitions

AAA000-001 01**IEC reference collection****IECREP**

Root class providing a name scope for the characteristic properties in the IEC reference collection of standard data element types.

NOTE

IEC REFERENCE COLLECTION is a data dictionary containing a classification with associated sets of properties for the description of electric/electronic and electromechanical components and materials.

AAE000-001 IEC reference class**AAA001-001 02****Components****CO**

A set of industrial products of which each product can be described with the same group of data element types.

NOTE

COMPONENTS are industrial products which serve a specific function or functions, which are not decomposable or physically divisible and which are intended for use in a higher-order assembled product.

Properties

AAE006-006	mounting features
AAE012-005	international standard
AAE017-005	reference temperature
AAE019-005	body length
AAE020-005	body height
AAE021-005	body breadth
AAE022-005	outside diameter
AAE111-005	packing type
AAE112-005	taping
AAE687-005	quality approval authority
AAE752-005	mass
AAE753-005	inside diameter
AAE834-005	component description
AAE965-005	component status
AAF043-005	national standard
AAF265-005	packing arrangement
AAF267-005	inner tape spacing
AAF268-005	orientation
AAF269-005	marking method
AAF276-002	stress temperature min
AAF277-002	stress temperature max
AAF278-002	stress ambient temperature
AAF279-002	stress relative humidity
AAF318-001	flange breadth
AAF356-001	reference view
AAF357-001	terminal identifier
AAF358-001	swapability indicator
AAF359-001	permutability indicator
AAF362-001	centre of gravity (x-axis)

AAF363-001	centre of gravity (y-axis)
AAF364-001	probability distribution
AAF365-001	normal average value
AAF366-001	normal standard deviation
AAF367-001	Poisson variance value
AAF368-001	Poisson expectation value
AAF369-001	test voltage coefficient
AAF370-001	MIL specification
AAF372-001	preformed lead
AAF388-001	case size
AAF391-001	connect-node code
AAF392-001	project view code
AAF393-001	x-coordinate of the reference point
AAF394-001	y-coordinate of the reference point
AAF395-001	z-coordinate of the reference point
AAF396-001	scale
AAF397-001	net area
AAF398-001	gross area
AAF399-001	net space
AAF400-001	gross space
AAF401-001	x-coor. preferred mounting position
AAF402-001	x-coor. preferred mounting position
AAF403-001	z-coor. preferred mounting position
AAF404-001	mounting deviation y/z
AAF405-001	mounting deviation y/x
AAF406-001	x-coordinate position location
AAF407-001	y-coordinate position location
AAF408-001	z-coordinate position location
AAF409-001	cylinder radius
AAF410-001	cylinder height
AAF411-001	angle axis to x-axis
AAF412-001	angle axis to y-axis
AAF413-001	angle axis to z-axis
AAF414-001	cone radius
AAF415-001	cone height
AAF416-001	semi angle
AAF417-001	sphere radius
AAF418-001	x-coordinate of centre
AAF419-001	y-coordinate of centre
AAF420-001	z-coordinate of centre
AAF421-001	major radius of torus
AAF422-001	minor radius of torus
AAF423-001	wedge x-size
AAF424-001	wedge y-size
AAF425-001	wedge z-size
AAF426-001	major edge
AAF427-001	minor edge
AAF428-001	primitive height
AAF429-001	edge-length
AAF430-001	internal radius
AAF431-001	external radius
AAF432-001	minor radius
AAF433-001	installation instruction
AAF435-001	terminal connection type
AAF436-001	simultaneity factor
AAF437-001	column type

AAE001-005 main class of component**Subclasses**

AAA002-003	Electric/electronic components
AAA147-001	Electromechanical components
AAA215-001	Magnetic parts

AAA002-003 01**Electric/electronic components EE**

A set of electric/electronic components of which each component can be described with the same group of data element types.

NOTE

ELECTRIC/ELECTRONIC COMPONENTS are groups of components, as used in the classification to indicate a class of functions with a common set of data elements.

Properties

AAE007-005	terminal shape
AAE008-005	terminal placement
AAE023-005	terminal diameter
AAE024-005	terminal pitch
AAE027-005	mounted height
AAE072-005	terminal length
AAE149-005	safety approval
AAE257-005	power dissipation
AAE259-005	shape/size code BSI
AAE267-005	rated temperature
AAE347-005	CECC specification
AAE540-005	current rms
AAE633-005	lacquered length
AAE634-005	terminal material
AAE688-005	thermal resistance
AAE785-005	signal type
AAE841-005	storage temperature
AAE891-005	ambient temperature
AAE905-005	dissipation derating factor
AAE987-005	power consumption
AAF316-001	hole pitch
AAF317-001	flange length
AAF319-001	flange height
AAF320-001	body diameter
AAF321-001	pitch (x-axis)
AAF322-001	pitch (y-axis)
AAF337-001	pitch circle diameter
AAF338-001	terminal breadth
AAF339-001	terminal thickness
AAF340-001	offset (y-axis)
AAF341-001	offset (x-axis)
AAF342-001	flange diameter
AAF343-001	mounting method
AAF344-001	body shape
AAF345-001	terminal exit position SMD
AAF346-001	terminal exit position non-SMD
AAF347-001	terminal shape non-SMD
AAF348-001	terminal shape SMD
AAF351-001	number of holes
AAF352-001	basic aspect
AAF353-001	size code EIA
AAF371-001	adjuster placement
AAF373-001	number of studs
AAF374-001	number of pitches (x-axis)
AAF375-001	number of pitches (y-axis)
AAF376-001	terminal cross-section shape
AAE002-006	category EE component

Subclasses

AAA003-001	Amplifiers
AAA013-001	Antennas
AAA017-001	Batteries
AAA020-001	Capacitors

AAA032-001	Conductors
AAA041-001	Delay lines
AAA042-001	Diode devices
AAA578-001	Fibre optics
AAA056-002	Filters
AAA057-001	Integrated circuits
AAA074-002	Inductors
AAA075-001	Lamps
AAA076-001	Liquid crystal displays
AAA229-001	Microwave components
AAA077-001	Optoelectronic devices
AAA087-001	Oscillators
AAA088-001	Piezoelectric devices
AAA232-001	Printed wiring circuits
AAA089-002	Resistors
AAA596-001	Resonators
AAA103-001	Sensors
AAA595-001	Spark gaps
AAA111-001	Transformers
AAA118-001	Transistors
AAA131-001	Trigger devices
AAA138-001	Tubes
AAA146-001	Tuners

AAA003-001 02**Amplifiers****AMP**

A set of amplifiers of which each amplifier can be described with the same group of data element types.

NOTE

AMPLIFIERS are active two-port devices essentially designed to produce an output signal of greater power than that of the input signal. IEC 60050(702) (1992)

Properties

AAE697-005	current consumption
AAE969-005	amplifier package
AAE974-005	input standing wave ratio
AAE975-005	output standing wave ratio

AAF146-005 frequency application**Subclasses**

AAA004-001	Low-frequency amplifiers
AAA011-001	Radio frequency amplifiers
AAA012-001	Wideband amplifiers

AAA004-001 02**Low-frequency amplifiers****LF**

A set of low-frequency amplifiers of which each amplifier can be described with the same group of data element types.

NOTE

LOW-FREQUENCY AMPLIFIERS are amplifiers designed for use with baseband unmodulated signals, for example audio, video and switching signals.

EN 61360-4:2005

AAF169-005 amplified quantity

Subclasses

- AAA005-001 Power amplifiers
- AAA006-001 Voltage amplifiers

AAA005-001 02

Power amplifiers

PWA

A set of power amplifiers of which each amplifier can be described with the same group of data element types.

NOTE

POWER AMPLIFIERS are amplifiers optimized to deliver output power to the load. Normally the voltage gain is insignificant and the power gain is thus mainly due to current gain.

AAA006-001 02

Voltage amplifiers

VTA

A set of voltage amplifiers of which each amplifier can be described with the same group of data element types.

NOTE

VOLTAGE AMPLIFIERS are amplifiers designed primarily to amplify the signal voltage, without supplying appreciable power.

Properties

- AAF158-005 output voltage peak-to-peak
- AAF159-005 large-signal voltage gain
- AAF162-005 slew rate
- AAF165-005 output resistance
- AAF166-005 unity-gain frequency
- AAF167-005 gain bandwidth product
- AAF168-005 total response time

AAF191-005 input configuration

Subclasses

- AAA007-001 Differential amplifiers
- AAA010-001 Single-sided amplifiers

AAA007-001 02

Differential amplifiers

DFA

A set of differential amplifiers of which each amplifier can be described with the same group of data element types.

NOTE

DIFFERENTIAL AMPLIFIERS are amplifiers whose output signal is proportional to the algebraic difference between the voltages applied to their two inputs.

Properties

- AAF157-005 common-mode input voltage
- AAF160-005 common-mode rejection ratio
- AAF163-005 differential input resistance
- AAF164-005 common-mode input resistance

36

AAF192-005 coupling method

Subclasses

- AAA008-001 Operational amplifiers
- AAA009-001 AC-coupled amplifiers

AAA008-001 02

Operational amplifiers

OPA

A set of operational amplifiers of which each amplifier can be described with the same group of data element types.

NOTE

OPERATIONAL AMPLIFIERS are high-gain differential dc-coupled amplifiers.

Properties

- AAF152-005 input offset current
- AAF153-005 temp coef input offset current
- AAF154-005 average bias current
- AAF155-005 input offset voltage
- AAF156-005 temp coef input offset voltage
- AAF161-005 supply voltage sensitivity
- AAF170-005 power supply rejection ratio

AAA009-001 02

AC-coupled amplifiers

ACA

A set of ac-coupled amplifiers of which each amplifier can be described with the same group of data element types.

NOTE

AC-COUPLED AMPLIFIERS are differential ac-coupled amplifiers.

AAA010-001 02

Single-sided amplifiers

SSA

A set of single-sided amplifiers of which each amplifier can be described with the same group of data element types.

NOTE

SINGLE-SIDED AMPLIFIERS are amplifiers of which one input terminal is directly connected to earth.

AAA011-001 02

Radio frequency amplifiers

RF

A set of RF amplifiers of which each amplifier can be described with the same group of data element types.

NOTE

RADIO FREQUENCY AMPLIFIERS are amplifiers designed for use with signals modulated on a radio-frequency carrier. IEC 60050(702) (1992)

AAA012-001 02**Wideband amplifiers WB**

A set of wideband amplifiers of which each amplifier can be described with the same group of data element types.

NOTE

WIDEBAND AMPLIFIERS are amplifiers designed for uniform operation within a broad range of frequencies, usually accommodating several signal channels.

Properties

AAE424-005	power gain
AAE698-005	output voltage
AAE699-005	composite triple beat
AAE700-005	2nd-order beat
AAE701-005	input return losses
AAE702-005	output return losses
AAE703-005	cross modulation
AAE705-005	slope cable equivalent
AAE706-005	conformity of frequency response

AAA013-002 02**Antennas ANT**

A set of antennas of which each antenna can be described with the same set of data element types.

NOTE

ANTENNAS are transducers which either emit radio frequency power into space from a signal source or intercepts an arriving electromagnetic field, converting it into an electric signal. IEC 60747-1 (1983)

Properties

AAE340-005	effective frequency f_{e2}
AAE341-005	effective frequency f_{e1}

AAE511-007 impedance type**Subclasses**

AAA014-001	Capacitive antennas
AAA015-001	Inductive antennas
AAA016-001	Resistive antennas

AAA014-001 02**Capacitive antennas CAP**

A set of capacitive antennas of which each antenna can be described with the same group of data element types.

NOTE

CAPACITIVE ANTENNAS are antennas in which, under given conditions, the predominant function is effected by means of capacitance.

Properties

AAE996-005	number of sections
AAE997-005	extended length
AAE998-005	non-extended length

AAA015-001 02**Inductive antennas IND**

A set of inductive antennas of which each antenna can be described with the same group of data element types.

NOTE

INDUCTIVE ANTENNAS are antennas in which, under given conditions, the predominant function is effected by means of inductance.

Properties

AAE151-005	winding configuration
AAE517-005	inductance
AAE518-005	quality factor

AAA016-001 02**Resistive antennas RES**

A set of resistive antennas of which each antenna can be described with the same group of data element types.

NOTE

RESISTIVE ANTENNAS are antennas in which, under given conditions, the predominant function is effected by means of resistance.

AAA017-001 02**Batteries BAT**

A set of batteries of which each battery can be described with the same group of data element types.

NOTE

BATTERIES are electrochemical energy sources consisting of one or more cells. (derivation)

Properties

AAE262-005	encapsulation technology
AAE529-005	open-circuit voltage
AAE530-005	nominal capacity
AAE940-005	number of cells in series
AAE942-005	storage life

AAE510-005 chargeability type**Subclasses**

AAA018-001	Primary batteries
AAA019-001	Secondary batteries

AAA018-001 02**Primary batteries PRI**

A set of primary batteries of which each battery can be described with the same group of data element types.

EN 61360-4:2005

NOTE

PRIMARY BATTERIES are electrochemical systems (batteries) designed for delivery of electric energy in one single uninterrupted (continuous) or interrupted (intermittent) discharge. IEC 60086-1 (2000)

Properties

AAE531-005 primary electrochemical system

AAA019-001 02

Secondary batteries

SEC

A set of secondary batteries of which each battery can be described with the same group of data element types.

NOTE

SECONDARY BATTERIES are electrochemical systems (batteries) capable of storing in chemical form the electric energy received and which can give it back by reconversion. (derivation) IEC 60050(486) (1991)

Properties

AAE532-005 secondary electrochemical system
AAE941-005 voltage during charge
AAE943-005 charge time
AAE944-005 number of charge cycles

AAA020-001 02

Capacitors

CAP

A set of capacitors of which each capacitor can be described with the same group of data element types.

NOTE

CAPACITORS are systems of two conductors (plates) separated over the extent of their surfaces by a thin insulating medium (dielectric), their intended characteristic being capacitance.

Properties

AAE010-005 climatic category
AAE030-005 E series
AAE044-005 rated voltage (dc)
AAE065-005 tangent of loss angle
AAE067-005 temperature coefficient (cap)
AAF360-001 max range value
AAF361-001 min range value
AAJ053-001 category voltage
AAJ054-001 surge voltage
AAJ055-001 rated temperature
AAJ056-001 category temperature
AAJ057-001 capacitance change with temperature
AAJ058-001 impedance of a capacitor

AAE003-006 adjustability type

Subclasses

AAA021-003 Fixed capacitors
AAA031-002 Variable capacitors

AAA021-003 01

Fixed capacitors

FIX

A set of fixed capacitors of which each capacitor can be described with the same group of data element types.

NOTE

FIXED CAPACITORS are capacitors that are designed so that the spatial relationship of their parts cannot be changed.

Properties

AAE009-005 performance grade
AAE018-001 capacitance lower tolerance (%)
AAE034-005 circuit application (capacitor)
AAE036-005 safety class
AAE046-005 capacitance
AAE047-001 capacitance upper tolerance (%)
AAE063-005 insulation resistance
AAE066-005 time constant (of capacitor)
AAE071-005 capacitance tolerance
AAE262-005 encapsulation technology
AAE268-001 capacitance upper tolerance
AAE269-001 capacitance lower tolerance
AAF462-001 toleranced capacitance
AAJ008-001 size code

AAE004-007 dielectric material type

Subclasses

AAA022-001 Fixed air capacitors
AAA023-001 Fixed ceramic capacitors
AAA026-002 Fixed electrolytic capacitors
AAA027-001 Fixed film capacitors
AAA028-001 Fixed glass capacitors
AAA029-002 Fixed mica capacitors
AAA030-001 Fixed paper capacitors
AAA050-001 Fixed mixed-dielectric capacitors

AAA022-001 02

Fixed air capacitors

AIR

A set of fixed air capacitors of which each capacitor can be described with the same group of data element types.

NOTE

FIXED AIR CAPACITORS are fixed capacitors with a dielectric consisting of air.

AAA023-001 02

Fixed ceramic capacitors

CER

A set of fixed ceramic capacitors of which each capacitor can be described with the same group of data element types.

NOTE

FIXED CERAMIC CAPACITORS are fixed capacitors with a dielectric consisting of a ceramic material.

AAE038-005 dielectric class (ceramic cap)**Subclasses**

AAA024-001 Fixed class1 ceramic capacitor
 AAA025-001 Fixed class2 ceramic capacitor

AAA024-001 02**Fixed class1 ceramic capacitor CL1**

A set of fixed ceramic capacitors class1 of which each capacitor can be described with the same group of data element types.

NOTE

FIXED CLASS1 CERAMIC CAPACITORS are ceramic capacitors specially designed and suited for resonant circuit application where low losses and high stability of capacitance are essential or where a precisely defined temperature coefficient is required. The ceramic dielectric is defined by their rated temperature coefficient (alpha). IEC 60384-8 (1988)

Properties

AAE035-005 temperature coefficient code
 AAE266-005 dielectric subclass 1

AAA025-001 02**Fixed class2 ceramic capacitor CL2**

A set of fixed ceramic capacitors class2 of which each capacitor can be described with the same group of data element types.

NOTE

FIXED CLASS2 CERAMIC CAPACITORS are ceramic capacitors which have a dielectric with a high permittivity and which are suitable for by-pass and coupling applications or for frequency discriminating circuits where low losses and high stability of capacitance are not of major importance. The ceramic dielectric is characterized by the non-linear change of capacitance over the category temperature range. IEC 60384-9 (1988)

Properties

AAE037-005 EIA temperature characteristic
 AAE076-005 dielectric subclass 2

AAA026-002 01**Fixed electrolytic capacitors ELC**

A set of fixed electrolytic capacitors of which each capacitor can be described with the same group of data element types.

NOTE

FIXED ELECTROLYTIC CAPACITORS are fixed capacitors in which the electrolytically formed oxide layer on the surface of the anode serves as a dielectric and having a solid or non-solid electrolyte forming the cathode, usually having polar properties.

Properties

AAE040-005 electrode material type
 AAE041-005 shelf life
 AAE042-005 leakage current short-term
 AAE043-005 leakage current continuous
 AAE064-005 equivalent series resistance
 AAE073-005 endurance
 AAE263-005 polarity type
 AAE960-005 ripple current
 AAJ051-001 electrolyte type
 AAJ052-001 anode type

AAJ001-001 electrolytic capacitor type**Subclasses**

AAA501-001 Solid tantalum
 AAA502-001 Non-solid tantalum
 AAA503-001 Solid aluminium
 AAA504-001 Non-solid aluminium

AAA027-001 02**Fixed film capacitors FLM**

A set of fixed film capacitors of which each capacitor can be described with the same group of data element types.

NOTE

FIXED FILM CAPACITORS are fixed capacitors with a dielectric consisting of a plastic film.

Properties

AAE031-005 electrode technology
 AAE033-005 voltage application
 AAE039-005 film dielectric material
 AAE045-005 rated voltage (ac)

AAA028-001 02**Fixed glass capacitors GLS**

A set of fixed glass capacitors of which each capacitor can be described with the same group of data element types.

NOTE

FIXED GLASS CAPACITORS are fixed capacitors with a dielectric consisting of glass.

AAA029-002 01**Fixed mica capacitors MICA**

A set of fixed mica capacitors of which each capacitor can be described with the same group of data element types.

NOTE

FIXED MICA CAPACITORS are fixed capacitors with a dielectric consisting of mica.

EN 61360-4:2005

AAA030-001 02

Fixed paper capacitors PAP

A set of fixed paper capacitors of which each capacitor can be described with the same group of data element types.

NOTE

FIXED PAPER CAPACITORS are fixed capacitors with a dielectric consisting of paper, usually impregnated.

AAA031-002 01

Variable capacitors VAR

A set of variable capacitors of which each capacitor can be described with the same group of data element types.

NOTE

VARIABLE CAPACITORS are capacitors designed so that their main property can be varied by mechanically changing the spatial relationship of their parts.

Properties

AAE068-005	maximum capacitance
AAE069-005	minimum capacitance
AAE070-005	adjustability class
AAE106-005	number of functions
AAE172-005	ganging number
AAF014-005	driving feature
AAJ002-001	variable capacitor type

AAA032-001 02

Conductors CND

A set of conductors of which each conductor can be described with the same group of data element types.

NOTE

CONDUCTORS are components containing one or more electric conductors.

Properties

AAF240-005	conductor finish
AAF241-005	conductive material
AAF242-006	conductor shape
AAF243-005	conductor configuration
AAF244-005	conductor size AWG
AAF245-005	dc resistance
AAF246-005	conductor diameter
AAF247-005	cross-section
AAF434-001	bending radius

AAF239-005 bare/insulated

Subclasses

AAA033-001	Bare conductors
AAA034-001	Insulated conductors

AAA033-001 02

Bare conductors BAR

A set of bare conductors of which each conductor can be described with the same group of data element types.

NOTE

BARE CONDUCTORS are conductors consisting of a single uninsulated conductive part.

AAA034-001 02

Insulated conductors INS

A set of insulated conductors of which each conductor can be described with the same group of data element types.

NOTE

INSULATED CONDUCTORS are conductors containing one or more insulated conductive parts.

Properties

AAF248-005	insulating material
AAF251-005	test voltage minimum

AAF249-005 cable/wire

Subclasses

AAA035-001	Cables
AAA040-001	Insulated wires

AAA035-001 02

Cables CBL

A set of cables of which each cable can be described with the same group of data element types.

NOTE

CABLES (electric) are an assembly of conductors insulated from one another and enclosed in a common binding or sheathing, and having some degree of flexibility.

Properties

AAF252-005	MIL cable type
AAF254-005	cable configuration
AAF255-005	number of cable elements
AAF258-005	working voltage
AAF259-005	capacitance between conductors

AAE152-005 power/signal

Subclasses

AAA036-001	Power cables
AAA037-001	Signal cables

AAA036-001 02**Power cables POW**

A set of power cables of which each cable can be described with the same group of data element types.

NOTE

POWER CABLES are cables designed for the purpose of handling energy.

AAA037-001 02**Signal cables SIG**

A set of signal cables of which each cable can be described with the same group of data element types.

NOTE

SIGNAL CABLES are cables designed for the purpose of handling a signal.

AAF146-005 frequency application**Subclasses**

AAA038-001 LF cables
AAA039-001 RF cables

AAA038-001 02**LF cables LF**

A set of low-frequency cables of which each cable can be described with the same group of data element types.

NOTE

LF CABLES are cables designed for use with baseband unmodulated signals, for example audio, video and switching signals.

Properties

AAF253-005 LF cable element

AAA039-001 02**RF cables RF**

A set of RF cables of which each cable can be described with the same group of data element types.

NOTE

RF CABLES are cables designed for use with signals modulated on a radio-frequency carrier.

Properties

AAF256-005 RF cable element
AAF257-005 dielectric construction
AAF260-005 characteristic impedance
AAF261-005 attenuation

AAA040-001 02**Insulated wires IWR**

A set of insulated wires of which each wire can be described with the same group of data element types.

NOTE

INSULATED wires are conductors consisting of a single insulated conductive part.

Properties

AAF250-005 colour code
AAF262-005 wire application

AAA041-001 02**Delay lines DEL**

A set of delay lines of which each delay line can be described with the same group of data element types.

NOTE

DELAY LINES are linear two-port devices designed to introduce a desired delay in the transmission of a signal, without modifying the other characteristics of the signal.

Properties

AAE442-005 colour TV transmission
AAE534-005 bandwidth
AAE541-005 frequency
AAE542-005 delay line application
AAE543-005 delay time
AAE544-005 phase delay time
AAE877-005 working principle
AAE878-006 delay line type
AAE879-005 spurious signal level (3-tau)
AAE880-005 spurious signal level
AAE885-005 phase relation
AAE886-005 phase delay drift
AAE887-005 insertion loss

AAA042-001 02**Diode devices DID**

A set of diode devices of which each device can be described with the same group of data element types.

NOTE

DIODE DEVICES are components built up of one or more two-terminal semiconductor devices and which can contain also resistors and/or capacitors.

Properties

AAF275-002 junction stress temperature

AAF305-005 category of diode device**Subclasses**

AAA043-001 Bridge rectifiers
AAA044-001 Diodes
AAA055-001 Voltage multipliers

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AAA043-001 02

Bridge rectifiers

BRI

A set of bridge rectifiers of which each bridge rectifier can be described with the same group of data element types.

NOTE

BRIDGE RECTIFIERS are full-wave rectifiers with four elements connected as a bridge circuit with dc voltage obtained from one pair of opposite junctions when alternating current is applied to the other pair.

Properties

AAE284-005 peak inrush current limit
AAE285-005 non-rep peak input current limit
AAE286-005 average output current
AAE287-005 repetitive peak output current
AAE290-005 repetitive peak input voltage
AAE291-005 rms input voltage
AAE292-005 crest working input voltage

AAA044-002 02

Diodes

DIO

A set of diodes of which each diode can be described with the same group of data element types.

NOTE

DIODES are two-terminal semiconductor devices having an asymmetric voltage-current characteristic.

Properties

AAE276-005 reverse current
AAE277-005 reverse voltage
AAE279-005 forward voltage
AAE331-005 diode package
AAE337-005 junction temperature
AAE489-005 diode technology
AAE494-005 nearest conventional type
AAE496-005 diode capacitance
AAE546-005 forward current limit

AAE273-007 diode application

Subclasses

AAA045-001 Breakover diodes
AAA046-001 Rectifier diodes
AAA047-001 Signal diodes
AAA048-001 Stabilizer diodes
AAA054-001 Variable capacitance diodes

AAA045-001 02

Breakover diodes

BOD

A set of breakover diodes of which each diode can be described with the same set of data element types.

NOTE

BREAKOVER DIODES are two-terminal semiconductor devices that operate in either an OFF (non-conducting) state or an ON (conducting) state,

reaching the conducting state when a voltage of specified minimum value (breakover voltage) is applied across their terminals and then conducting with a low ON-state voltage until the current is reduced below the minimum holding current.

Properties

AAE488-005 diode configuration

AAA046-001 02

Rectifier diodes

REC

A set of rectifier diodes of which each diode can be described with the same group of data element types.

NOTE

RECTIFIER DIODES are semiconductor diodes designed for rectification and including their associated mounting and cooling attachments if integral with them.

Properties

AAE281-005 reverse recovery time
AAE293-005 repetitive peak forward current
AAE294-005 non-repetitive peak forward current
AAE296-005 working peak forward current
AAE297-005 repetitive peak reverse current
AAE299-005 crest working reverse voltage
AAE301-005 non-repetitive peak reverse voltage
AAE302-005 repetitive peak reverse power
AAE303-006 non-rep peak reverse power diss
AAE304-005 non-rep peak rev avalanche energy
AAE305-005 Joule-integral
AAE306-005 total reverse recovery time
AAE336-005 mounting base temperature
AAE488-005 diode configuration
AAE503-005 EHT stack application
AAE505-005 rectifier diode application
AAE966-005 average forward current
AAF301-005 reverse recovery time (I)
AAF302-005 breakdown voltage

AAA047-001 02

Signal diodes

SIGD

A set of signal diodes of which each diode can be described with the same group of data element types.

NOTE

SIGNAL DIODES are diodes used for the purpose of extracting or processing information contained in an electrical signal which varies with time and may be either analogue or digital.

Properties

AAE281-005 reverse recovery time
AAE293-005 repetitive peak forward current
AAE294-005 non-repetitive peak forward current
AAE300-005 repetitive peak reverse voltage
AAE301-005 non-repetitive peak reverse voltage
AAE302-005 repetitive peak reverse power
AAE303-006 non-rep peak reverse power diss
AAE310-005 diode forward resistance

AAE487-005 frequency band
 AAE488-005 diode configuration
 AAE490-005 modulation method
 AAE966-005 average forward current
 AAF301-005 reverse recovery time (I)

AAA048-001 02**Stabilizer diodes STB**

A set of stabilizing diodes of which each diode can be described with the same group of data element types.

NOTE

STABILIZER DIODES are diodes exhibiting a breakdown caused by the transition of electrons from the valence band to the conduction band due to tunnel action under the influence of a strong electric field in the reverse direction. IEC 60050-521 (2002)

Properties

AAE318-005 non-repetitive peak reverse current
 AAE327-006 non-rep peak reverse power diss
 AAF389-001 non-rep peak reverse power diss

AAE312-005 diode function**Subclasses**

AAA049-001 Current regulator diodes
 AAA050-001 Voltage reference diodes
 AAA051-001 Voltage regulator diodes
 AAA052-001 Stabistor diodes
 AAA053-001 Transient suppressor diodes

AAA049-001 02**Current regulator diodes CUR**

A set of current regular diodes of which each diode can be described with the same group of data element types.

NOTE

CURRENT REGULATOR DIODES are diodes that limit current to an essentially constant value over a specified voltage range.

AAA050-001 02**Voltage reference diodes REF**

A set of voltage reference diodes of which each diode can be described with the same group of data element types.

NOTE

VOLTAGE REFERENCE DIODES are diodes which develop a reference voltage of specified accuracy across their terminals, when biased to operate within a specified current range. IEC 60747-1 (1983)

Properties

AAE316-005 working current
 AAE317-005 peak working current
 AAE322-005 temperature coefficient S_Z

AAE323-005 differential resistance
 AAE324-005 working voltage

AAA051-001 02**Voltage regulator diodes REG**

A set of voltage regulator diodes of which each diode can be described with the same group of data element types.

NOTE

VOLTAGE REGULATOR DIODES are diodes which develop an essential constant voltage across their terminals throughout a specified current range. IEC 60747-1 (1983)

Properties

AAE316-005 working current
 AAE317-005 peak working current
 AAE322-005 temperature coefficient S_Z
 AAE324-005 working voltage
 AAE328-005 differential resistance

AAA052-001 02**Stabistor diodes STA**

A set of stabistor diodes of which each diode can be described with the same group of data element types.

NOTE

STABISTOR DIODES are diodes having closely controlled conductance, controlled storage charge, and low leakage, as required for clippers, clamping circuits, bias regulators, and other logic circuits that require tight voltage-level tolerance.

Properties

AAE293-005 repetitive peak forward current
 AAE300-005 repetitive peak reverse voltage
 AAE328-005 differential resistance
 AAE329-005 temperature coefficient S_F

AAA053-001 02**Transient suppressor diodes SUP**

A set of transient suppressor diodes of which each diode can be described with the same group of data element types.

NOTE

TRANSIENT SUPPRESSOR DIODES are diodes utilizing the steep slope of the blocking current-voltage characteristics of selenium plates for limiting transient overvoltages. Suppressors may be of two types: a Polarized: Selenium transient overvoltage suppressor having an asymmetrical current-voltage characteristic; Non-polarized: Selenium transient overvoltage suppressor having a symmetrical current-voltage characteristic.

Properties

AAE313-005 clamping voltage
 AAE316-005 working current

AAA054-001 02

Variable capacitance diodes VARD

A set of variable capacitor diodes of which each diode can be described with the same group of data element types.

NOTE

VARIABLE CAPACITANCE DIODES are diodes that are designed so that their capacitance can be varied by changing the voltage between their terminals.

Properties

AAE310-005	diode forward resistance
AAE311-005	diode reverse resistance
AAE487-005	frequency band
AAE488-005	diode configuration
AAE490-005	modulation method
AAE502-005	capacitance ratio
AAF303-005	diode upper capacitance
AAF304-005	diode lower capacitance

AAA055-001 02

Voltage multipliers VMP

A set of voltage multipliers of which each multiplier can be described with the same group of data element types.

NOTE

VOLTAGE MULTIPLIERS are rectifier circuits capable of supplying a dc output voltage that is greater than (generally two or more times) the peak value of the ac input voltage.

Properties

AAE282-005	output current EHT supply
AAE283-005	output current focus supply
AAE288-005	input voltage peak-to-peak
AAE289-005	output voltage EHT supply
AAE290-005	repetitive peak input voltage

AAA056-002 01

Filters FIL

A set of filters of which each filter can be described with the same group of data element types.

NOTE

FILTERS ARE linear two-port devices designed to transmit spectral components of signals according to a specified law, generally in order to pass the components in certain frequency bands and to attenuate those in other bands. IEC 60050(702) (1992)

Properties

AAE527-005	centre frequency
AAE533-005	input impedance
AAE534-005	bandwidth
AAE543-005	delay time
AAE888-005	spurious signal level (2-tau)
AAF044-005	output impedance

AAF119-005	frequency application
AAF120-005	comb depth
AAF121-005	pass-band attenuation
AAJ059-001	filter type

AAA057-001 02

Integrated circuits IC

A set of integrated circuits of which each integrated circuit can be described with the same group of data element types.

NOTE

INTEGRATED CIRCUITS are circuits in which all or some of the circuit elements are inseparably associated and electrically interconnected so that they are considered to be indivisible for the purpose of construction and commerce. IEC 60748-1 (2002)

Properties

AAE074-005	IC application field
AAE086-005	supply voltage limit
AAE106-005	number of functions
AAE210-005	input voltage limit
AAE214-005	power dissipation per output
AAE336-005	mounting base temperature
AAE337-005	junction temperature
AAE442-005	colour TV transmission
AAE458-005	number of inputs
AAE487-005	frequency band
AAE490-005	modulation method
AAE686-005	IC technology
AAE690-005	supply voltage
AAE691-005	supply current
AAE786-005	mode of operation
AAE838-005	IC package code
AAE898-005	input capacitance
AAF275-002	junction stress temperature

AAE077-005 signal type

Subclasses

AAA058-001	Analogue signal functions
AAA059-001	Digital signal functions
AAA072-001	Analogue/digital signal functi
AAA073-001	Periodic/dc functions

AAA058-001 02

Analogue signal functions ANA

A set of analogue signal function ICs of which each function can be described with the same group of data element types.

NOTE

ANALOGUE SIGNAL FUNCTIONS are functions designed to carry out operations on analogue signals.

Properties

AAE084-005	analogue function
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AAA059-001 02**Digital signal functions DIG**

A set of digital signal function ICs of which each function can be described with the same group of data element types.

NOTE

DIGITAL SIGNAL FUNCTIONS are functions designed to carry out operations on digital signals.

Properties

AAE092-005	HIGH-state output voltage
AAE093-005	HIGH-state output voltage ref
AAE094-005	LOW-state output voltage ref
AAE097-005	LOW-state output voltage
AAE217-005	input current limit
AAE218-005	output current limit
AAE223-005	input leakage current
AAE235-005	output fall time
AAE238-005	output rise time
AAE239-005	HIGH off-state output current
AAE240-005	LOW off-state output current
AAE254-005	LOW-state output current
AAE255-005	HIGH-state output current
AAE457-005	numeral system
AAE459-005	word size
AAE464-005	mode of control
AAE718-005	HIGH-state input voltage
AAE719-005	LOW-state input voltage
AAE787-005	input/output characteristic
AAE896-005	quiescent current
AAE897-005	additional quiescent current
AAE899-005	HIGH-state input current
AAE900-005	LOW-state input current
AAE901-005	HIGH-state supply current
AAE902-005	LOW-state supply current
AAE903-005	off-state supply current
AAF207-005	output short-circuit current
AAF323-005	interface compatibility

AAE085-005 digital function**Subclasses**

AAA060-001	Combinational/sequential/interface
AAA061-001	Microcontrollers
AAA062-001	Microprocessors
AAA063-001	Programmable logic devices
AAA064-001	Storage functions

AAA060-001 03**Combinational/sequential/interface CSI**

A set of combinatorial/sequential/interface function ICs of which each function can be described with the same group of data element types.

NOTE

COMBINATIONAL/SEQUENTIAL/INTERFACE is an abbreviated term for combinatorial, sequential and interface, as used in the classification to indicate a class of functions with a common set of data element types.

Properties

AAE231-005	propagation delay
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AAE233-005	HIGH to LOW propagation time
AAE237-005	LOW to HIGH propagation time
AAE692-005	standby current disabled
AAE693-005	standby current enabled
AAE790-005	CSI functions
AAF208-005	positive-going threshold
AAF209-005	negative-going threshold
AAF210-005	hysteresis
AAF211-005	maximum clock frequency
AAF212-005	set-up time
AAF213-005	hold time
AAF214-005	output enable time
AAF215-005	output disable time
AAF216-005	pulse width HIGH
AAF217-005	pulse width LOW
AAF218-005	metastable window
AAF219-005	recovery time

AAA061-001 02**Microcontrollers MUC**

A set of microcontrollers of which each microcontroller can be described with the same group of data element types.

NOTE

MICROCONTROLLERS are controllers whose elements have been miniaturized into an IC. They are generally dedicated to a single application, mainly real time control.

Properties

AAF223-005	machine cycle
AAF224-005	clock frequency
AAF225-005	internal clock frequency
AAF226-005	address bus width
AAF227-005	data bus width
AAF228-005	addressable storage size
AAF229-005	instruction rate
AAF230-005	number of internal registers
AAF324-005	instruction set
AAF325-005	interrupt type
AAF326-005	addressing mode
AAF327-005	on-chip memory
AAF328-005	I/O bus width
AAF329-005	number of peripherals
AAF330-005	peripheral word size

AAA062-001 02**Microprocessors MUP**

A set of microprocessors of which each microprocessor can be described with the same group of data element types.

NOTE

MICROPROCESSORS are processors whose elements have been miniaturized into an IC.

Properties

AAF221-005	bus structure
AAF222-005	instruction set architecture
AAF223-005	machine cycle
AAF224-005	clock frequency
AAF225-005	internal clock frequency

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AAF226-005 address bus width
AAF227-005 data bus width
AAF228-005 addressable storage size
AAF229-005 instruction rate
AAF230-005 number of internal registers
AAF324-005 instruction set
AAF325-005 interrupt type
AAF326-005 addressing mode
AAF328-005 I/O bus width

AAA063-001 02

Programmable logic devices PLD

A set of programmable logic devices of which each device can be described with the same group of data element types.

NOTE

PROGRAMMABLE LOGIC DEVICES are device consisting of a programmable AND array whose output terms are fed to a fixed or programmable. (a PLD may also include registers)

Properties

AAF231-005 PLD programmability

AAA064-002 02

Storage functions STO

A set of storage functions of which each function can be described with the same group of data element types.

NOTE

STORAGE FUNCTIONS are functional units in which data (information) can be placed, in which they can be retained and from which they can be retrieved. ISO 2382-11 (1987)

Properties

AAE474-005 storage size
AAE720-005 access time
AAF232-005 output data-valid time
AAJ098-001 address set-up time
AAJ099-001 address hold time
AAJ100-001 input set-up time
AAJ101-001 input hold time
AAJ102-001 clockset-up time
AAJ103-001 clock hold time
AAJ104-001 output hold time
AAJ105-001 transition time

AAE722-007 storage function

Subclasses

AAA065-001 Content addressable memory ICs
AAA066-001 Charge coupled device ICs
AAA067-001 Random access memory ICs
AAA070-001 Read only memory ICs
AAA071-001 Registers

AAA065-001 02

Content addressable memory ICs CAM

A set of content addressable memory ICs of which each memory can be described with the same group of data element types.

NOTE

CONTENT ADDRESSABLE MEMORY are memories that respond with all the data in a storage zone if a portion of that data matches the data used for addressing the memory. If a match could occur in more than one storage zone, then usually the data read out will be that contained in the storage zone having the lowest address value.

AAA066-001 02

Charge coupled device ICs CCD

A set of charge coupled device ICs of which each charge coupled device can be described with the same group of data element types.

NOTE

CHARGE COUPLED DEVICE ICs are charge-transfer devices that store charge in potential wells and transfers this charge almost completely as a packet by translating the position of the potential wells. This device operates by changing the position of the same packet of charge.

AAA067-001 02

Random access memory ICs RAM

A set of random access memory ICs of which each memory can be described with the same group of data element types.

NOTE

RANDOM ACCESS MEMORY ICs are memories that permit access to any of their address locations in any desired sequence.

AAF233-005 RAM type

Subclasses

AAA068-001 Dynamic ram ICs
AAA069-001 Static ram ICs

AAA068-001 02

Dynamic RAM ICs DRM

A set of dynamic RAM ICs of which each IC can be described with the same group of data element types.

NOTE

DYNAMIC RAM ICs are memories in which the cells (elements) require the repetitive application of control signals in order to retain the data stored. A dynamic memory may use dynamic addressing and/or sensing circuits. This definition applies whether or not the control signals are generated inside or outside the memory.