

EIA-535ABAE

DETAIL SPECIFICATION

Fixed Tantalum Capacitors With Non-Solid Electrolyte And Porous Anode

Silver Case, Axial Lead, Elastomeric Seal, Polarized,
Nickel Positive, Copper Negative Leads, Insulated

EIA-535ABAE

MAY 1987

ELECTRONIC INDUSTRIES ASSOCIATION
ENGINEERING DEPARTMENT



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

*Quality Assessment System
for Electronic Components*

IECQ

Specifications for use in electronic equipment

Detail Specification: Fixed Tantalum Capacitors with Non-Solid
Electrolyte and Porous Anode

Silver Case, Axial Lead, Elastomeric
Seal, Polarized, Nickel Positive,
Copper Negative Leads, Insulated

Originator:

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The U.S. National Authorized Institution
for the IEC

QUALITY ASSESSMENT SYSTEM
FOR ELECTRONIC COMPONENTS

2001 Eye Street, N.W.
Washington, D.C. 20006
USA



**FIXED TANTALUM CAPACITORS WITH NON-SOLID
ELECTROLYTE AND POROUS ANODE**

**Silver Case, Axial Lead, Elastomeric Seal, Polarized,
Nickel Positive, Copper Negative Leads, Insulated**

This Standard represents US adoption of International Electrotechnical Commission Quality Assessment Systems (IECQ) Detail Specification QC300202/US0005, August 1985. It is issued as an EIA document to provide a Specification in the National Electronic Components Quality Assessment System (NECQ).

IEC documents referenced in this Detail Specification (e.g. QC 300000) may be obtained from the American National Standards Institute, 1430 Broadway, New York, New York 10018. EIA numbers are assigned to these IEC documents for reference purposes and to facilitate later publication of equivalent EIA documents.



National Standards Organization ELECTRONIC INDUSTRIES ASSOCIATION	Detail Specification Number QC300202/US0005 (EIA-535ABAE)
Generic Specification Number Electronic components of assessed quality in accordance with QC300000 (EIA-5350000)	Blank Detail Specification Number QC300202 (EIA-535AB00)
Outline Drawing (See Table I) (First Angle Projection) (Other shapes are permitted within the dimensions given)	Product Description Fixed Tantalum Capacitors with Non-Solid Electrolyte and Porous Anode
	Electrical Circuit
	Typical Construction Silver case, Axial Lead, Elastomeric Seal, Polarized, Nickel Positive, Copper Negative Leads, insulated Application/Assessment Level Assessment Level: E Performance Grade: Long Life

Information on the availability of components
qualified to this specification is given in
the Qualified Products List.

PART ONE - GENERAL DATA

1. GENERAL DATA

1.1 RECOMMENDED METHODS OF MOUNTING

- a. By the leads in the absence of vibration or shock.
- b. By body clamp and leads if vibration or shock can exist.

1.2 DIMENSIONS

TABLE 1

CASE SIZE REFERENCE	DIMENSIONS (mm)				
	Ø (Max.)	L1 (Max.)	L2 (Max.)	L3 +,-6.35	A +,-.025
A	5.56	15.45	21.00	38.10	0.64
B	7.92	20.22	25.80	57.15	0.64
C	10.31	23.40	29.00	57.15	0.64
D	10.31	30.91	36.50	57.15	0.64

1.3 RATINGS AND CHARACTERISTICS

Capacitance Range	(see Table II)
Tolerance On Rated Capacitance	+,-5%; +,-10%; +,-20%
Rated Voltage (Ur)	(see Table II)
Upper Category Voltage (Uc)	(see Table II)
Climatic Category	55/125/21
Rated Temperature	+85 C
Variation of Capacitance With Temperature	(see Table II)
Tangent Of Loss Angle	(see Table II)
Leakage Current	(see Table II)
Impedance	(see Table II)
Reverse Voltage	0 (No reversal of voltage permitted)

TABLE II - STANDARD RATINGS

uF	CASE CODE	MAX. * tan d @ 20 C	MAX. IMP. @ -55 C	MAX. DCL uA @ 20 C	MAX. CAPACITANCE CHANGE FROM 20 C @ 85 C @ 125 C	MAX. MA RMS RIPPLE CURRENT
6.3 VOLTS WVDC @ 85 C (Ur)						
4 VOLTS WVDC @ 125 C (Uc)						
30.0	A	0.091	100	1	2.0 -40 +10.5 +12	140
68.0	A	0.204	60	1	2.0 -40 +14.0 +16	160
140.0	B	0.213	40	1	3.0 -40 +14.0 +16	330
270.0	B	0.818	25	1	6.5 -44 +17.5 +20	270
330.0	C	0.496	20	2	7.9 -44 +14.0 +16	410
560.0	C	1.280	25	2	13.0 -64 +17.5 +20	340
1200.0	D	1.444	20	3	14.0 -80 +25.0 +25	530
7.5 VOLTS WVDC @ 85 C (Ur)						
5 VOLTS WVDC @ 125 C (Uc)						
25.0	A	0.076	100	1	2.0 -40 +10.5 +12	140
56.0	A	0.170	59	1	2.0 -40 +14.0 +16	160
220.0	B	0.664	30	1	7.0 -44 +17.5 +20	270
430.0	C	0.915	25	2	14.0 -64 +17.5 +20	340
850.0	D	0.658	22	4	16.0 -80 +25.0 +25	670
10 VOLTS WVDC @ 85 C (Ur)						
6.3 VOLTS WVDC @ 125 C (Uc)						
20.0	A	0.061	175	1	2.0 -32 +10.5 +12	140
47.0	A	0.181	100	1	2.0 -36 +14.0 +16	160
100.0	B	0.152	60	1	4.0 -36 +14.0 +16	270
180.0	B	0.544	40	1	7.0 -36 +14.0 +16	270
250.0	C	0.378	30	2	10.0 -40 +14.0 +16	410
390.0	C	0.876	25	2	16.0 -64 +17.5 +20	340
750.0	D	0.565	23	4	16.0 -80 +25.0 +25	670
16 VOLTS WVDC @ 85 C (Ur)						
10 VOLTS WVDC @ 125 C (Uc)						
15.0	A	0.057	155	1	2.0 -24 +10.5 +12	130
33.0	A	0.125	90	1	2.0 -28 +14.0 +16	160
70.0	B	0.131	75	1	4.0 -28 +14.0 +16	270
120.0	B	0.368	50	1	7.0 -28 +17.5 +20	270
170.0	C	0.254	35	2	10.0 -32 +14.0 +16	410
270.0	C	0.609	30	2	16.0 -56 +17.5 +20	340
540.0	D	0.490	23	6	24.0 -80 +25.0 +25	610