

Series CTN (CA70)



Metal Case Tantalum Capacitors Axial Type Nonpolar Solid Electrolytic

Features:

- Solid electrolytic.
- Nonpolar Type.
- Hermetically sealed metal cases.
- Axial leads.
- General purpose-extended range.



SPECIFICATION:

Item	Performance Characteristics																	
Operating Temperature Range	-55 to + 125°C																	
Rated Working Voltage Range	6.3 to 35 V DC																	
Nominal Capacitance Range	0.22 to 100 μF																	
Capacitance Tolerance	±20% (120Hz, +20°C) ± 10%																	
Leakage Current	Not more than 0.01CV [μA] or 0.5μA whichever is greater																	
tan δ (120Hz, +20°C)	0.04 max. for ≤ 0.47μF																	
	0.06 max. for 0.68~33μF																	
	0.08 max. for ≥ 47 μF																	
Characteristics at High and Low Temperature	-55°C	Capacitance change	±10% of initial measured value at +20°C															
	+125°C	Leakage current	≤ 0.1 CV or 5 [μF] whichever is greater															
		Capacitance change	±15% of initial measured value at +20°C															
Moisture Resistance	Test conditions																	
	Relative humidity : 90 to 95% without load Ambient temperature : +60°C Duration : 1000 hours Post test requirements at + 20°C Leakage current : ≤ 0.1 CV or 5[μA], whichever is greater Capacitance change : ± 10% of initial measured value tan δ : ≤ 200% of initial specified value																	
Endurance	Test conditions																	
	<table border="1"> <thead> <tr> <th>Item \ Conditions</th> <th>Derating</th> <th>Rating</th> </tr> </thead> <tbody> <tr> <td>Duration</td> <td>2000 hours</td> <td>2000 hours</td> </tr> <tr> <td>Ambient temperature</td> <td>+ 125°C</td> <td>+ 85°C</td> </tr> <tr> <td>Applied voltage</td> <td>Derated working voltage</td> <td>Rated working voltage</td> </tr> <tr> <td>Source impedance</td> <td>1Ω/V</td> <td>1Ω/V</td> </tr> </tbody> </table>			Item \ Conditions	Derating	Rating	Duration	2000 hours	2000 hours	Ambient temperature	+ 125°C	+ 85°C	Applied voltage	Derated working voltage	Rated working voltage	Source impedance	1Ω/V	1Ω/V
	Item \ Conditions	Derating	Rating															
	Duration	2000 hours	2000 hours															
	Ambient temperature	+ 125°C	+ 85°C															
	Applied voltage	Derated working voltage	Rated working voltage															
	Source impedance	1Ω/V	1Ω/V															
	Derating voltage + 125°C																	
	<table border="1"> <tbody> <tr> <td>Working voltage [V] DC</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> </tr> <tr> <td>Derating voltage [V] DC</td> <td>4</td> <td>6.3</td> <td>10</td> <td>16</td> <td>22</td> </tr> </tbody> </table>			Working voltage [V] DC	6.3	10	16	25	35	Derating voltage [V] DC	4	6.3	10	16	22			
	Working voltage [V] DC	6.3	10	16	25	35												
Derating voltage [V] DC	4	6.3	10	16	22													
Post test requirements at +20°C																		
Leakage current : ≤ 125% of initial specified value																		
Capacitance change : ± 10% of initial measured value																		
tan δ : ≤ Initial specified value																		
Impedance : ≤ 200% of initial specified value																		
Shelf Life	Test conditions		Post test requirements at +20°C															
	Duration	: 2000 hours	Same limits of "Endurance".															
	Ambient temperature	: +125°C																
	Applied voltage	: (none)																

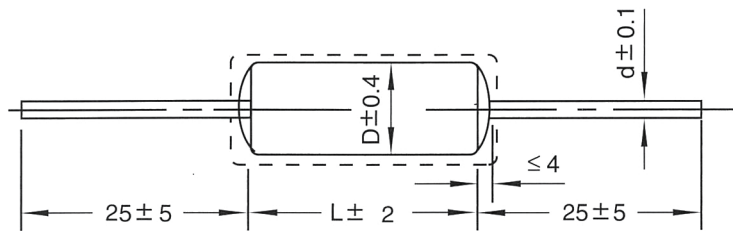
Series CTN (CA70)

Metal Case Tantalum Capacitors Explanation of Part Numbers



$\frac{CTN}{\text{Series Code}}$
 $\frac{1V}{\text{Rated Voltage}}$
 $\frac{335}{\text{Nominal Capacitance}}$
 $\frac{M}{\text{Capacitance Tolerance}}$
 $\frac{B}{\text{Case Size}}$
 $\frac{B}{\text{Packing}}$

TANTALUM CAPACITOR METAL CASE OUTLINE DRAWING



Dimensions Millimeters mm

Case Size	A	B	C	D
D x L	4 x 16	6 x 25	7 x 30	9 x 30
d ± 0.1	0.4	0.6	0.6	0.8

Rated Voltage, Capacitance of Capacitors.

Rated Voltage (V)	6.3	10	16	25	35
Code	0J	1A	1C	1E	1V
Capacitance (µF)	Case Size				
0.22 (224)					A
0.33 (334)					A
0.47 (474)					A
0.68 (684)					A
1.0 (105)			A	A	A
1.5 (155)			A	A	A
2.2 (225)		A	A	B	A
3.3 (335)		A	A	B	B
4.7 (475)	A	A	B	B	B
6.8 (685)	A	B	B	B	C
10 (106)	B	B	B	B	C
15 (156)	B	B	B	C	
22 (226)	B	B	B	C	
33 (336)	B	B	C	D	
47 (476)	B	C	C		
68 (686)	C	C	D		
100 (107)	C				