

Features :

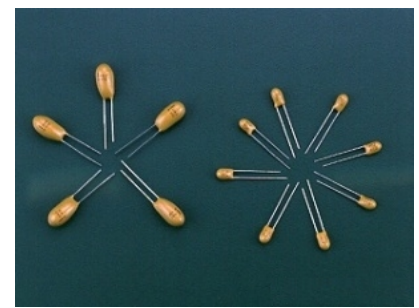
Lead-Free

Specially designed of general purpose.

Highly reliable resin dipped type.

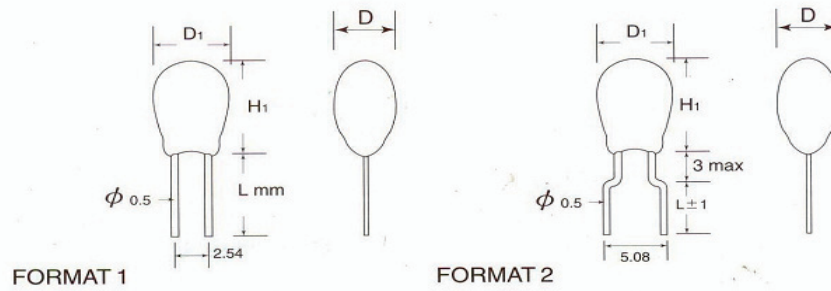
Excellent frequency and temperature characteristics.

Non-flammable epoxy resin



Item	Performance Characteristics																											
使用溫度範圍 Operating Temperature Range	-55 to +125°C (>85°C with rated voltage derating)																											
額定電壓範圍 Rated Working Voltage Range	6.3 to 50 V DC																											
Nominal Capacitance Range	0.1 to 330 uF																											
靜電容量容許差 Capacitance Tolerance	±20% (±10% is available)(120Hz, +20°C)																											
洩漏電流 Leakage Current	Not more than 0.008CV[uA] or 0.5uA whichever is greater																											
散逸因素 (tan δ) (120Hz, +20°C)	<table border="1" data-bbox="523 1079 1439 1167"> <thead> <tr> <th data-bbox="523 1079 705 1111">Working voltage</th> <th colspan="4" data-bbox="1023 1079 1118 1111">6.3 to 50V</th> </tr> </thead> <tbody> <tr> <td data-bbox="523 1111 705 1140">Capacitance</td> <td data-bbox="427 1111 523 1140">≤ 1.0uF</td> <td data-bbox="922 1111 1023 1140">1.5 to 6.8 uF</td> <td data-bbox="1114 1111 1214 1140">10 to 68 uF</td> <td data-bbox="1321 1111 1422 1140">≥ 100uF</td> </tr> <tr> <td data-bbox="523 1140 705 1167">tan δ max.</td> <td data-bbox="427 1140 523 1167">0.04</td> <td data-bbox="922 1140 1023 1167">0.06</td> <td data-bbox="1114 1140 1214 1167">0.08</td> <td data-bbox="1321 1140 1422 1167">0.1</td> </tr> </tbody> </table>	Working voltage	6.3 to 50V				Capacitance	≤ 1.0uF	1.5 to 6.8 uF	10 to 68 uF	≥ 100uF	tan δ max.	0.04	0.06	0.08	0.1												
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Characteristics at High and Low Temperature	<p data-bbox="523 1227 746 1258">Test conditions</p> <table border="1" data-bbox="523 1263 1457 1408"> <thead> <tr> <th data-bbox="523 1263 836 1292">Conditions</th> <th data-bbox="836 1263 1155 1292">Derating(for 10 to 50V only)</th> <th data-bbox="1155 1263 1457 1292">Rating</th> </tr> </thead> <tbody> <tr> <td data-bbox="523 1292 836 1321">Duration</td> <td data-bbox="836 1292 1155 1321">1000 hours</td> <td data-bbox="1155 1292 1457 1321">1000 hours</td> </tr> <tr> <td data-bbox="523 1321 836 1350">Ambient temperature</td> <td data-bbox="836 1321 1155 1350">+ 105°C</td> <td data-bbox="1155 1321 1457 1350">+ 85°C</td> </tr> <tr> <td data-bbox="523 1350 836 1379">Applied voltage</td> <td data-bbox="836 1350 1155 1379">Derated working voltage</td> <td data-bbox="1155 1350 1457 1379">Rated working voltage</td> </tr> <tr> <td data-bbox="523 1379 836 1408">Source impedance</td> <td data-bbox="836 1379 1155 1408">1Ω / V</td> <td data-bbox="1155 1379 1457 1408">1Ω / V</td> </tr> </tbody> </table> <p data-bbox="523 1417 1150 1449">Derating voltage +105°C for 10~50V working</p> <table border="1" data-bbox="523 1453 1457 1543"> <thead> <tr> <th data-bbox="523 1453 799 1482">Working voltage[V]DC</th> <th data-bbox="799 1453 922 1482">10</th> <th data-bbox="922 1453 1045 1482">16</th> <th data-bbox="1045 1453 1168 1482">25</th> <th data-bbox="1168 1453 1291 1482">35</th> <th data-bbox="1291 1453 1457 1482">50</th> </tr> </thead> <tbody> <tr> <td data-bbox="523 1482 799 1512">Derating voltage [V]DC</td> <td data-bbox="799 1482 922 1512">6.3</td> <td data-bbox="922 1482 1045 1512">10</td> <td data-bbox="1045 1482 1168 1512">16</td> <td data-bbox="1168 1482 1291 1512">23</td> <td data-bbox="1291 1482 1457 1512">33</td> </tr> </tbody> </table> <p data-bbox="523 1552 967 1583">Post test requirements at +20°C</p> <p data-bbox="557 1588 1326 1619">Leakage current : ≤ 0.01% CV or 00625[uA], whichever is greater</p> <p data-bbox="557 1619 1185 1650">Capacitance change : ±10% of initial measured value</p> <p data-bbox="557 1650 943 1682">tan δ : ≤ Initial specified value</p>	Conditions	Derating(for 10 to 50V only)	Rating	Duration	1000 hours	1000 hours	Ambient temperature	+ 105°C	+ 85°C	Applied voltage	Derated working voltage	Rated working voltage	Source impedance	1Ω / V	1Ω / V	Working voltage[V]DC	10	16	25	35	50	Derating voltage [V]DC	6.3	10	16	23	33
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Moisture Resistance	<p data-bbox="523 1704 746 1736">Test conditions</p> <p data-bbox="557 1736 1059 1767">Relative humidity : 90 to 95% without load</p> <p data-bbox="557 1767 895 1798">Ambient temperature : +40°C</p> <p data-bbox="557 1798 791 1830">Duration: 500 hours</p> <p data-bbox="523 1830 967 1861">Post test requirements at +20°C</p> <p data-bbox="557 1861 1291 1892">Leakage current : ≤ 0.012CV or 0.75[uF], whichever is greater</p> <p data-bbox="557 1892 1185 1924">Capacitance change : ±10% of initial measured value</p> <p data-bbox="557 1924 1038 1955">tan δ : ≤ 150% of initial specified value</p>																											
Endurance																												
Shelf Life	<p data-bbox="523 1973 746 2004">Test conditions</p> <p data-bbox="557 2004 810 2036">Duration : 1000 hours</p> <p data-bbox="557 2036 895 2067">Ambient temperature : +85°C</p> <p data-bbox="557 2067 839 2098">Applied voltage : (none)</p> <p data-bbox="523 2098 967 2130">Post test requirements at +20°C</p> <p data-bbox="557 2130 1326 2161">Leakage current : ≤ 0.01% CV or 00625[uA], whichever is greater</p> <p data-bbox="557 2161 1185 2192">Capacitance change : ±10% of initial measured value</p> <p data-bbox="557 2192 943 2224">tan δ : ≤ Initial specified value</p>																											

Tantalum Capacitor Dipped Type outline Drawings



Dimensions Millimeters

Case Size	A	B	C	D	E	F
Formats 1/2 H1 max	7.0	8.0	9.5	11.0	13.0	16.5
D1 max	4.5	5.0	5.5	6.5	8.5	9.5
D max	4.2	4.7	5.5	6.5	8.5	9.5
Wire Length(L)	5,7±1		12,14±1		18,20±1	
Code	A		B		C	

Rated Voltage, Capacitance of Capacitors

VR(V)	6.3	10	16	25	35	50
Code	0J	1A	1C	1E	1V	1H
Capacitance (uF)	Case Size					
0.10 (104)					A	A
0.15 (154)					A	A
0.22 (224)					A	A
0.33 (334)					A	A
0.47 (474)					A	A
0.68 (684)					A	A
1.0 (105)				A	A	B
1.5 (155)			A	A	A	C
2.2 (225)		A	A	A	B	C
3.3 (335)	A	A	A	B	B	D
4.7 (475)	A	A	B	B	C	D
6.8 (685)	A	B	B	C	D	E
10 (106)	B	B	B	C	D	E
15 (156)	B	C	C	D	E	F
22 (226)	C	C	C	D	E	F
33 (336)	C	D	D	E	F	
47 (476)	D	D	D	E	F	
68 (686)	D	D	E	F		
100 (107)	E	E	E	F		
150 (157)	E	E	F			
220 (227)	E	F				
330 (337)	F					

Leads & Solderability

Tinned radial leads, ϕ : 0.5 min.
Standard lead spacing : 2.54 ± 0.5 , 5.08 ± 0.5mm

The tin should cover 95% of wire surface.

Permissible pull test : 10 N.

Solderability:

-Recommended soldering bath temperature : 260°C
-Time of immersion : 3s

Packaging of bead tantalum capacitors

Ratings and Part Number Reference