

EKT

Chip Tantalum Capacitor Low ESR– SMD

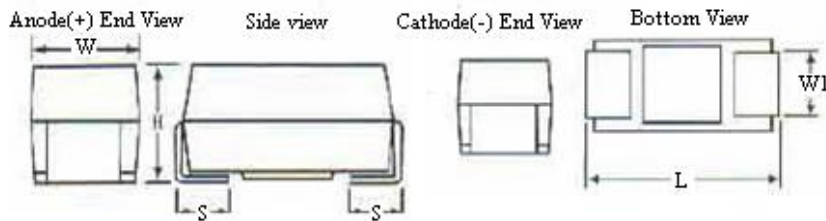
■Features

- Operating temperature Range: -55°C to +125°C (>80°C with rated voltage derating)
- Laser-mark Case
- Capacitance tolerance: M(±20%); K(±10% , for special order)
- DC leakage at 25°C : $I_o \leq 0.01C_r V_r$ or $0.5 \mu A$ (Whichever is greater)
- Dimensions rated voltage and nominal capacitance Please see Table 1 & 2 and Figure 1

■Introduction

The EKT Series is low ESR tantalum chip capacitor suitable

For SMT electric board used for telecommunication computer camcorder and mobile phone set and so on Low ESR value conform with EIA535BAAC size: Tape and Reeled per EIA481-1



Dimensions (Unit: mm)

Case	L	W	H	S	W1
S	2.0+0.2	1.3-0.2	1.2+0.2	0.5+0.3	1.2+0.1
A	3.2+0.2	1.6-0.2	1.6+0.2	0.8-0.3	1.2+0.1
B	3.5+0.2	2.8+0.2	1.8+0.2	0.8+0.3	2.2+0.1
C	6.0+0.3	3.2+0.3	2.5+0.3	1.3+0.3	2.2+0.1
D	7.3+0.3	4.3+0.3	2.8+0.3	1.3+0.3	2.4+0.1
E	7.3+0.3	4.3+0.3	4.0+0.3	1.3+0.3	2.4+0.1

■Electrolyte Characteristics

Capacitance (μF)	Case Size	(Ua@+25°C Max) DC Leakage	DF (%) @85°C @100Hz (Max)	ESR (Ω) @25°C @100KHZ (Max)
4Volt Rating at +85°C (2.7Volt Rating +125°C)				
3.3	A	0.5	6.0	4.0
4.7	A	0.5	6.0	3.5
6.8	A	0.5	6.0	3.0
10	B	0.5	6.0	1.2
10	A	0.5	6.0	2.0
10	S	0.6	6.0	6.0
15	B	0.6	6.0	1.2
15	A	0.6	6.0	1.5
22	C	0.9	6.0	0.5
22	B	0.9	6.0	0.6
22	A	0.9	6.0	1.5
33	C	1.3	6.0	0.5
33	B	1.3	6.0	0.5
33	A	1.3	6.0	3.0
47	C	1.9	6.0	0.5
47	B	1.9	6.0	0.5
47	A	1.9	12.0	2.0
68	B	2.7	6.0	0.2
68	C	2.7	6.0	0.25
68	B	2.7	6.0	2.0
100	D	4.0	8.0	0.2
100	C	4.0	8.0	0.2
100	B	4.0	10	0.6
150	D	6.0	8.0	0.15
150	C	6.0	8.0	0.3
220	D	8.8	8.0	0.15
330	D	13.2	8.0	0.15
470	E	18.8	8.0	0.15
470	D	18.8	8.0	0.15

Capacitance (μF)	Case Size	(Ua@+25°C Max) DC Leakage	DF (%) @85°C @100Hz (Max)	ESR (Ω) @25°C @100KHZ (Max)
6.3Volt Rating at +85°C (4Volt Rating +125°C)				
2.2	A	0.5	6.0	6.0
3.3	A	0.5	6.0	6.0
4.7	A	0.5	6.0	3.5
6.8	B	0.5	6.0	1.2
6.8	A	0.5	6.0	2.0
6.8	S	0.5	6.0	8.0
10	B	0.6	6.0	1.0
10	A	0.6	6.0	2.0
10	S	0.6	8.0	6.0
15	C	0.9	6.0	0.6
15	B	0.9	6.0	0.7
15	A	0.9	6.0	2.0
22	C	1.4	6.0	0.5
22	B	1.4	6.0	0.6
22	A	1.4	6.0	3.0
33	C	2.0	6.0	0.3
33	B	2.0	6.0	0.6
33	A	2.0	12.0	2.0
47	D	2.9	6.0	0.22
47	C	2.9	6.0	0.25
47	B	2.9	6.0	2.0
68	D	4.1	6.0	0.2
68	C	4.1	6.0	0.2
100	D	6.0	8.0	0.15
100	C	6.0	8.0	0.3
150	D	9.0	8.0	0.15
150	C	9.0	8.0	0.3
220	E	13.2	8.0	0.15
220	D	13.2	8.0	0.15
330	E	19.8	8.0	0.15
330	D	19.8	8.0	0.15
470	E	28.2	10.0	0.1

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Capacitance (μF)	Case Size	(μa@+25°C Max) DC Leakage	DF (%) @85°C @100Hz (Max)	ESR (Ω) @25°C @100KHZ (Max)
10Volt Rating at +85°C(7.0Volt Rating+125°C)				
1.5	A	0.5	6.0	6.0
2.2	A	0.5	6.0	6.0
3.3	A		6.0	4.0
4.7	B	0.5	6.0	1.5
4.7	A	0.5	6.0	3.0
4.7	S	0.5	8.0	8.0
6.8	B	0.7	6.0	1.2
6.8	A	0.7	6.0	3.0
10.0	C	1.0	6.0	0.6
10.0	B	1.0	6.0	0.8
10.0	A	1.0	6.0	2.0
15.0	C	1.5	6.0	0.5
15.0	B	1.5	6.0	0.7
15.0	A	1.5	8.0	4.0
22.0	C	2.2	6.0	0.4
22.0	B	2.2	6.0	0.7
33.0	D	3.3	6.0	0.25
33.0	C	3.3	6.0	0.3
33.0	B	3.3	6.0	2.0
47.0	D	4.7	6.0	0.22
47.0	C	4.7	6.0	0.3
68.0	D	6.8	6.0	0.2
68.0	C	6.8	6.0	0.3
100.0	D	10.0	8.0	0.15
100.0	C	10.0	8.0	0.3
150.0	E	15.0	8.0	0.15
150.0	D	15.0	8.0	0.15
220.0	E	22.0	8.0	0.15
220.0	D	22.0	8.0	0.15
330.0	E	33.0	10.0	0.10

Capacitance (μF)	Case Size	(μa@+25°C Max) DC Leakage	DF (%) @85°C @100Hz (Max)	ESR (Ω) @25°C @100KHZ (Max)
16Volt Rating at +85°C (10Volt Rating +125°C)				
1.0	A	0.5	4.0	6.0
1.5	A	0.5	6.0	6.0
2.2	A	0.5	6.0	4.0
2.2	S	0.5	8.0	20.0
3.3	A	0.5	6.0	4.0
3.3	B	0.5	6.0	2.0
4.7	B	0.8	6.0	1.5
4.7	A	0.8	6.0	3.0
6.8	C	1.1	6.0	0.8
6.8	B	1.1	6.0	1.2
6.8	A	1.1	6.0	3.0
10.0	C	1.6	6.0	0.6
10.0	B	1.6	6.0	0.8
15.0	C	2.4	6.0	0.4
15.0	B	2.4	6.0	0.8
22.0	D	3.6	6.0	0.25
22.0	C	3.6	6.0	0.35
33.0	D	5.3	6.0	0.25
33.0	C	5.3	6.0	0.3
47.0	D	7.5	6.0	0.2
47.0	C	7.5	6.0	0.55
68.0	D	10.9	6.0	0.15
100.0	E	16.0	8.0	0.15
100.0	D	16.0	8.0	0.15
150.0	E	24.0	8.0	0.15

20Volt Rating at +85°C(13Volt Rating+125°C)				
0.68	A	0.5	4.0	8.0
1.0	A	0.5	4.0	5.5
1.5	A	0.5	6.0	4.5
2.2	B	0.5	6.0	1.5
2.2	A	0.5	6.0	4.0
3.3	B	0.7	6.0	1.3
3.3	A	0.7	6.0	4.0
4.7	C	1.0	6.0	0.6
4.7	B	1.0	6.0	1.0
4.7	A	1.0	6.0	3.5
6.8	C	1.4	6.0	0.6
6.8	B	1.4	6.0	1.0
10.0	C	2.0	6.0	0.5
10.0	B	2.0	6.0	1.0
15.0	D	3.0	6.0	0.36
15.0	C	3.0	6.0	0.4
22.0	D	4.4	6.0	0.3
22.0	C	4.4	6.0	0.4
33.0	D	6.6	6.0	0.25
33.0	C	6.6	6.0	0.4
47.0	D	9.4	6.0	0.2
68.0	E	13.6	6.0	0.2
68.0	D	13.6	8.0	0.2
100.0	E	20.0	8.0	0.15

25Volt Rating at +85°C (17Volt Rating +125°C)				
0.33	A	0.5	4.0	10.0
0.47	A	0.5	4.0	9.0
0.68	A	0.5	4.0	6.0
1.0	B	0.5	4.0	2.0
1.0	A	0.5	4.0	4.0
1.5	B	0.5	6.0	1.5
1.5	A	0.5	6.0	5.0
2.2	C	0.6	6.0	1.2
2.2	B	0.6	6.0	2.2
3.3	C	0.9	6.0	1.2
3.3	B	0.9	6.0	2.0
4.7	C	1.2	6.0	0.6
4.7	B	1.2	6.0	1.0
6.8	C	1.7	6.0	0.6
10.0	D	2.5	6.0	0.4
10.0	C	2.5	6.0	0.6
15.0	D	3.8	6.0	0.4
15.0	C	3.8	6.0	0.9
22.0	D	5.5	6.0	0.4
33.0	E	8.3	6.0	0.3
33.0	D	8.3	6.0	0.4
47.0	E	11.8	6.0	0.3

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Capacitance (μ F)	Case Size	(μ a@+25°C Max) DC Leakage	DF (%) @85°C @100Hz (Max)	ESR (Ω) @25°C @100KHZ (Max)
35Volt Rating at +85°C (23Volt Rating+125°C)				
0.1	A	0.5	4.0	10.0
0.15	A	0.5	4.0	6.0
0.22	A	0.5	4.0	6.0
0.33	A	0.5	4.0	6.0
0.47	B	0.5	4.0	2.5
0.47	A	0.5	4.0	4.0
0.68	B	0.5	4.0	2.5
0.68	A	0.5	4.0	6.0
1.0	B	0.5	4.0	2.0
1.0	A	0.5	4.0	6.0
1.5	C	0.5	6.0	2.5
1.5	B	0.5	6.0	3.0
2.2	C	0.8	6.0	1.5
2.2	B	0.8	6.0	2.5
3.3	C	1.2	8.0	0.8
3.3	B	1.2	6.0	2.0
4.7	D	1.7	6.0	0.7
4.7	C	1.7	6.0	0.7
6.8	D	2.4	6.0	0.5
6.8	C	2.4	6.0	0.9
10.0	D	3.5	6.0	0.4
10.0	C	3.5	6.0	1.2
15.0	E	5.3	6.0	0.3
15.0	D	5.3	6.0	0.35
22.0	E	7.7	6.0	0.3
22.0	D	7.7	6.0	0.4

Capacitance (μ F)	Case Size	(μ a@+25°C Max) DC Leakage	DF (%) @85°C @100Hz (Max)	ESR (Ω) @25°C @100KHZ (Max)
50Volt Rating at +85°C (30Volt Rating +125°C)				
0.1	A	0.5	4.0	10.0
0.15	B	0.5	4.0	10.0
0.15	A	0.5	4.0	10.0
0.22	B	0.5	4.0	10.0
0.33	B	0.5	4.0	2.5
0.47	C	0.5	4.0	1.8
0.47	B	0.5	4.0	2.0
0.68	C	0.5	4.0	1.6
0.68	B	0.5	4.0	3.0
1.0	C	0.5	4.0	1.6
1.5	D	0.8	6.0	1.0
1.5	C	0.8	6.0	1.5
2.2	D	1.1	6.0	0.8
2.2	C	1.1	6.0	1.5
3.3	D	1.7	6.0	0.8
4.7	D	2.4	6.0	0.6
6.8	E	3.5	6.0	0.5

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Chip Tantalum Capacitor Low ESR– SMD

■How to order

<u>EKT</u>	<u>0R1</u>	<u>M</u>	<u>350</u>	<u>A</u>	<u>T</u>	<u>R</u>
<u>Series</u>	<u>1.</u>	<u>2.</u>	<u>3.</u>	<u>4.</u>	<u>5.</u>	<u>6.</u>

1. Nominal Capacitance

Code	0R1	R22	010	2R2	220	221
Capacitance	0.1uF	0.22uF	1uF	2.2uF	22uF	220uF

2. Capacitance Tolerance

Code	K	M
Tolerance	±10%	±20%

3. Rated Voltage

Code	040	060	100	160	200	250	350	500
Voltage	4V	6.3V	10V	16V	20V	25V	35V	50V

4. Case

Code	A	B	C	D
Case	A	B	C	D

5. Packing

Code	T
Packing	Tape & Reel

6. Pb

Code	L	R
Pb	Leaded	RoHS

Note: Specifications are subject to change without notice.