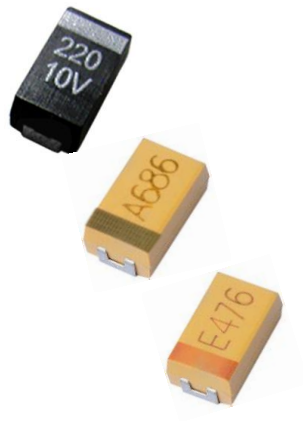
Kingtronics®

CKT

Chip Tantalum Capacitor - SMD

SOLID ELECTROLYTE, HIGH VOLUMETRIC EFFICIENCY, STABLE ELECTRIC PERFORMANCES



FEATURES

- Molded case available in six case codes
- Compatible with all popular “High Volume” automatic pick and equipment
- Optical character recognition qualified

Capacitance (μF)	Capacitance Change (%)			DF Max. (%)				DCL Max. (μA)	
	-55℃	+85℃	+125℃	-55℃	+25℃	+85℃	+125℃	+85℃	+125℃
≤1.0				6	4	6	6		
1.5 ~ 68	±10	±10	±12	10	6	10	10	+10 Io	+12 Io
100 ~ 470				14	12	14	14		

SPECIFICATIONS

OPERATING TEMPERATURE	-55℃ to +125℃; (>85℃ applying derated voltage)
RATED VOLTAGE	4 ~ 50VDC
CAPACITANCE TOLERANCE	K: (±10%), M: (±20%), J: (±5%, for special order) (20℃, 120HZ/100HZ)
LEAKAGE CURRENT	Io≤0.01CRVR or 0.5 μA (whichever is greater) Measured after 5 minutes application of rated voltage CR-(μF) Nominal Capacitance; VR-(V) Rated Voltage
LOAD LIFE	85℃, After applying rated voltage for 2000 hours at 85℃ Capacitance change: within +-10% of the initial value Dissipation factor: Not more than 150% of the specified value Leakage current: Not more than the specified value
TEMPERATURE CHARACTERISTIC	

Case Size, Derated Voltage & Surge Voltage

V_R	V≤+85℃	4	6.3	10	16	20	25	35	50
Voltage Derating (V_C) ≤+125℃		2.7	4	6.3	10	15	17	23	33
Surge Voltage +85℃ (V_S)		5.2	8	13	20	26	32	46	65
Surge Voltage +125℃ (V_S)		3.4	5	8	13	16	20	28	40
C_R		Case Size (standard / miniature / Super miniature)							
μF									
0.1						P		A	A
0.15						P		A	B/A
0.22						P		A	B
0.33						P		A	B
0.47					P	P	A	B/A	C
0.68				P	P	A/P	A	B/A	C
1.0			A/P	A/P	A/P	A	B/A	B/A	C
1.5		P	A/P	A/P	A/P	B/A	B	C/B	D/C
2.2		P	A/P	A/P	B/A	B/A	B	C/B	D
3.3		A/P	A/P	A/P	B/A	C/B/A	C/B	D/C/B	D
4.7		A/P	A/P	B/A/P	B/A	D/B/A	C/B	D/C	E/D
6.8		A/P	B/A/P	B/A	C/B/A	D/C/B	D/C	D/C	D
10		B/A	B/A	B/A	C/B/A	D/C/B	D/C	D/C	E
15		B/A	B/A	C/B	C/B	D/C	D/C	E	
22		B/A	B/A	C/B	D/C	D/C	D	E	
33		C/B	C/B	D/C	D/C	D	E/D		
47		C/B	C/B	D/C	D/C	E/D	E		
68		D/C/B	D/C	D	D	E/D			
100		D/C/B	D/C	D/C	D	E			
150		D/C	D	E	E				
220		D	E/D	E/D	E				
330		E	E/D	E					
470		E							

Marking code for case size p

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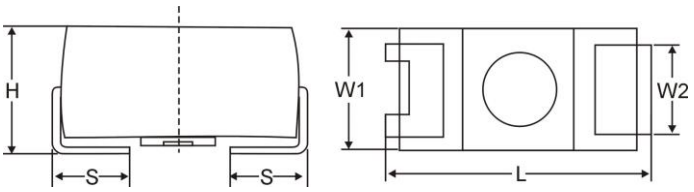
Diagram of Dimensions (unit: mm)

Case Size		L ±0.4	W1 ±0.4	H ±0.4	S ±0.3	W2
P	2012	2.0	1.2	1.2	0.5	1.0±0.2
A	3216	3.2	1.6	1.6	0.8	1.2±0.2
B	3528	3.5	2.8	1.9	0.8	2.2±0.2
C	6032	6.0	3.2	2.5	1.3	2.2±0.2
D	7343	7.3	4.3	2.8	1.3	2.4±0.2
E	7343	7.3	4.3	4.1	1.3	2.4±0.5



Load Voltage

Product model	Main materials of cathode	Load requirements after derating	Explain
CKT	MnO_2	≤50%U_R	General application
		≤30%U_R	Power circuit or low impedance circuit

Note: UR is the rated voltage under the condition of temperature ≤ 85 ℃,When the temperature is higher than 85 ℃, temperature derating should be considered.

Temperature Derating

Temperature range	Derating calculation formula	Explain	
85℃~125℃	$U_T=(U_R-U_C)*(T-85)/40$	U_R	It is the rated voltage under the condition of temperature ≤ 85 ℃
		U_C	It is the rated voltage at 125 ℃
		U_T	It is the voltage to be reduced between 85 and 125 ℃

How To Order

CKT	0R1	M	350	A	T	R
|	|	|	|	|	|	|
Series	1.	2.	3.	4.	5.	6.

1. Nominal Capacitance

Code	0R1	R22	010	2R2	220	221
Capacitance	0.1uF	0.22uF	1uF	2.2uF	22uF	220uF
Marking	104	224	105	225	226	227

2. Capacitance Tolerance

Code	K	M	J
Tolerance	±10%	±20%	±5%

3. Rated Voltage

Code	040	060	100	160	200	250	350	500
Voltage	4V	6.3V	10V	16V	20V	25V	35V	50V
Marking	G	J	A	C	D	E	V	T

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.