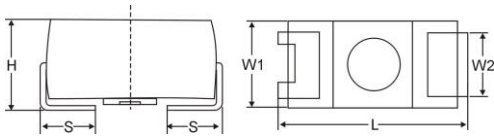# SMD Chip Tantalum Capacitor – JTB

FEATURES

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

SPECIFICATIONS

Operating Temperature Range	-55°C to +125°C (>85°C with rated voltage derating.)
Capacitance Range	0.1µF to 470µF
Rated Voltage	D.C. 4V ~ 50V
Capacitance Tolerance	±20%, ±10%, ±5% (for special order)
DC Leakage Current	Io≤0.01 CRVR or 0.5 µA (whichever is greater)
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
Case Sizes and Dimensions	Please see Table 2
Dissipation Factor at 20°C	Please see Table 1
Temperature Characteristics	Please see Table 1

TEMPERATURE CHARACTERISTICS									Table 1
Capacitance (µF)	Capacitance Change (%)			Dissipation Factor Max. (%)				DCL Max. (µA)	
	-55℃	+85℃	+125℃	-55℃	+25℃	+85℃	+125℃	+85℃	+125℃
≤1.0	±10	±10	±12	6	4	6	6	+10 Io	+12 Io
1.5 ~ 68				10	6	10	10		
100 ~ 470				14	12	14	14		

DIMENSIONS – MILLIMETERS (Unit: mm)						Table 2
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	4.3	1.3	2.4±0.5

LOAD VOLTAGE			Table 3
Product model	Main materials of cathode	Load requirements after derating	Explain
JTB	MnO₂	≤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			Table 4
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 ℃

SMD Chip Tantalum Capacitor – JTB

Rated Voltage, Nominal Capacitance and Case Sizes									Table 5
U_R	V≤+85℃	4	6.3	10	16	20	25	35	50
Rated Voltage Marking		G	J	A	C	D	E	V	T
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
Capacitance (µF)	Marking	Case Size (standard / miniature / Super miniature)							
0.1	104							A	A/B
0.15	154							A	A/B
0.22	224							A	A/B
0.33	334						A	A	A/B
0.47	474				P	P	A	A/B	A/C
0.68	684			P	A/P	A/P	A	A/B	A/C
1.0	105	A	A	A/P	A/P	A	A	A/B	C
1.5	155	A/P	A	A/P	A	A/B	A/B	A/B/C	D
2.2	225	A/P	A	A/P	A/B	A/B	A/B	B/C	C/D
3.3	335	A/P	A	A/P	A/B	A/B	B/C	C/D	D
4.7	475	A/P	A	A/B/P	A/B	A/B/C	B/C	C/D	D
6.8	685	A/P	A	A/B	A/B	B/C	B/C	C/D	D
10	106	A/P	A/B	A/B	A/B/C	B/C/D	B/C/D	C/D	
15	156	A/B	A	A/B/C	B/C	C	C/D	D/E	
22	226	A/B	A/B/C	A/B/C	B/C/D	C/D	D		
33	336	B/C	A/B	B/C/D	C/D	C/D	D/E		
47	476	B/C	B/C	B/C/D	C/D	D/E	D/E		
68	686	B/C	B/C/D	C/D	D	D/E			
100	107	B/C	B/C	C/D	D/E				
150	157	C/D/E	C/D	D/E	E				
220	227	C/D/E	C/D	D					
330	337	E	D						

Please visit our website to get more update data, those data & specification are subject to change without notice.