

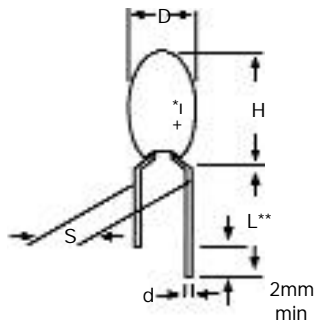
Dip Tantalum Capacitors



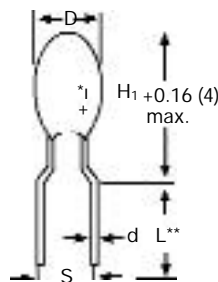
Features:

- Solid Tantalum construction
- Flame retardant with epoxy coating that meets UL94V0
- Capacitance range .1 μ F ~ 330 μ F
- Operating temperature range -55°C ~ +125°C
- Voltage range 6.3VDC - 50VDC

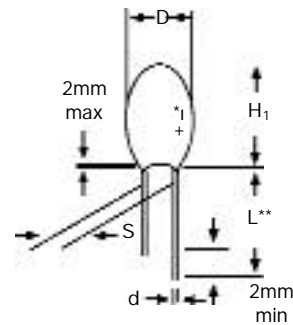
Lead Form A



Lead Form B



Straight Leads



* Positive polarity is designated by | and or +.

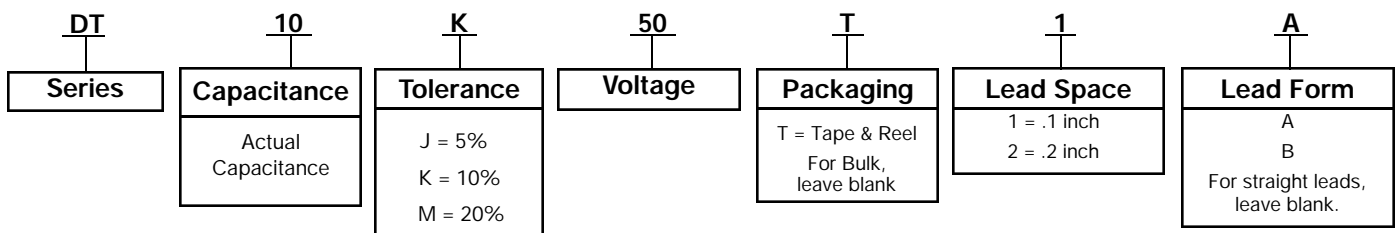
** L dimension = .630 \pm 0.160 (16.4) on all types.

Case Size	D max mm (inches)	H max mm (inches)	H ₁ max mm (inches)	S \pm 0.5 mm (.02 inches) mm (inches)
A	4.5 (.177)	8.5 (0.33)	7.0 (.276)	2.5 (0.1)
B	4.5 (.177)	9.0 (0.35)	7.5 (.295)	2.5 (0.1)
C	5.0 (.197)	10.0 (0.39)	8.5 (.335)	2.5 (0.1)
D	5.0 (.197)	10.5 (0.41)	9.0 (.354)	2.5 (0.1)
E	5.5 (.217)	10.5 (0.41)	9.0 (.354)	2.5 (0.1)
F	6.0 (.236)	11.5 (0.45)	10.0 (.394)	2.5 (0.1)
G	6.5 (.256)	11.5 (0.45)	10.0 (.394)	2.5 (0.1)
H	7.0 (.276)	12.0 (0.47)	10.5 (.413)	2.5 (0.1)

Case Size	D max mm (inches)	H max mm (inches)	S \pm 0.5 mm (.02 inches) mm (inches)
J	8.0 (.315)	13.0 (.512)	5.0 (0.2)
K	8.5 (.335)	14.0 (.550)	5.0 (0.2)
L	9.0 (.354)	14.0 (.550)	5.0 (0.2)
M	9.0 (.354)	14.5 (.570)	5.0 (0.2)
N	9.0 (.354)	16.0 (.630)	5.0 (0.2)
O	10.0 (.394)	17.0 (.670)	5.0 (0.2)

* Case sizes J-O available with straight leads only.

Part Numbering System





Dip Tantalum Capacitors

6.3VDC

Capacitance (μF)	Case Size	DCL (μA) max.	DF max. (%)	ESR @ 100kHz max. (ohms)
3.3	A	0.5	6	13.0
4.7	A	0.5	6	10.0
6.8	A	0.5	6	8.0
10	B	0.5	8	6.0
15	C	0.8	8	5.0
22	D	1.1	8	3.7
33	E	1.7	8	3.0
47	F	2.4	8	2.0
68	G	3.4	8	1.8
100	H	5.0	1	1.6
150	K	7.6	1	0.9
220	M	11.0	1	0.9
330	N	16.6	1	0.7

10VDC

Capacitance (μF)	Case Size	DCL (μA) max.	DF max. (%)	ESR @ 100kHz max. (ohms)
2.0	A	0.5	6	13.0
2.2	A	0.5	6	13.0
3.3	A	0.5	6	10.0
4.7	A	0.5	6	8.0
6.8	B	0.5	6	6.0
10	C	0.8	8	5.0
15	D	1.2	8	3.7
22	E	1.7	8	2.7
33	F	2.6	8	2.1
47	G	3.7	8	1.7
68	H	5.4	8	1.3
100	K	8.0	1	1.0
150	N	12.0	1	0.8
220	O	17.6	1	0.6
330	O	20.0	1	0.5

Dip Tantalum Capacitors



16VDC

Capacitance (μF)	Case Size	DCL (μA) max.	DF max. (%)	ESR @ 100kHz max. (ohms)
1.0	A	0.5	4	10.0
1.5	A	0.5	4	10.0
2.2	A	0.5	6	8.0
3.3	A	0.5	6	6.0
4.7	B	0.6	6	5.0
6.8	C	0.8	6	4.0
10	D	1.2	8	3.2
15	E	1.9	8	2.5
22	F	2.8	8	2.0
33	F	4.2	8	1.6
47	H	6.0	8	1.3
68	L	8.7	8	1.0
100	M	12.8	1	0.8
150	N	19.2	1	0.6
220	O	20.0	1	0.5

20VDC

Capacitance (μF)	Case Size	DCL (μA) max.	DF max. (%)	ESR @ 100kHz max. (ohms)
1.5	A	0.5	4	9.0
2.2	A	0.5	6	7.0
3.3	B	0.5	6	5.5
4.7	C	0.7	6	4.5
6.8	D	1.0	6	3.6
10	E	1.6	8	2.9
15	F	2.4	8	2.3
22	H	3.5	8	1.8
33	J	5.2	8	1.4
47	K	7.5	8	1.2
68	N	10.8	8	0.9
100	N	16.0	1	0.6



Dip Tantalum Capacitors

25VDC

Capacitance (μF)	Case Size	DCL (μA) max.	DF max. (%)	ESR @ 100kHz max. (ohms)
1.5	A	0.5	4	8.0
2.2	A	0.5	6	6.0
3.3	B	0.6	6	5.0
4.7	C	0.9	6	4.0
6.8	D	1.3	6	3.1
10	E	2.0	8	2.5
15	F	3.0	8	2.0
22	H	4.4	8	1.5
33	J	6.6	8	1.2
47	M	9.4	8	1.0
68	N	13.6	8	0.8

35VDC

Capacitance (μF)	Case Size	DCL (μA) max.	DF max. (%)	ESR @ 100kHz max. (ohms)
0.1	A	0.5	4	26.0
0.15	A	0.5	4	21.0
0.22	A	0.5	4	17.0
0.33	A	0.5	4	15.0
0.47	A	0.5	4	13.0
0.68	A	0.5	4	10.0
1	A	0.5	4	8.0
1.5	A	0.5	4	6.0
2.2	B	0.6	6	5.0
3.3	C	0.9	6	4.0
4.7	E	1.3	6	3.0
6.8	F	1.9	6	2.5
10	F	2.8	8	2.0
15	H	4.2	8	1.6
22	K	6.1	8	1.3
33	M	9.2	8	1.0
47	N	10.0	8	0.8

Dip Tantalum Capacitors



50VDC

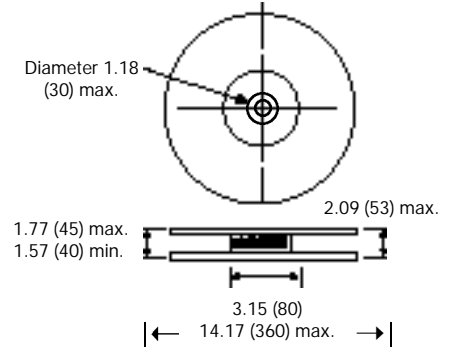
Capacitance (μ F)	Case Size	DCL (μ A) max.	DF max. (%)	ESR @ 100kHz max. (ohms)
0.1	A	0.5	4	26.0
0.15	A	0.5	4	21.0
0.22	A	0.5	4	17.0
0.33	A	0.5	4	15.0
0.47	A	0.5	4	13.0
0.68	B	0.5	4	10.0
1	C	0.5	4	8.0
1.5	D	0.6	4	5.0
2.2	E	0.8	6	3.5
3.3	F	1.3	6	3.0
4.7	G	1.8	6	2.5
6.8	H	2.7	6	2.0
10	J	4.0	8	1.6
15	K	6.0	8	1.2

Dip Tantalum Capacitors

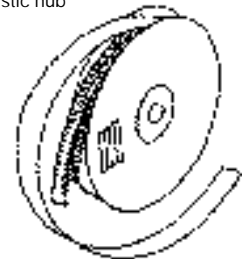
Dimensions: inches (mm)

Description	Code	Dimension
Feed hole pitch	P	0.5 ± 0.01 (12.7 ± 0.3)
Hole center to lead	P ₁	0.15 ± 0.03 (3.85 ± 0.7) to be measured at bottom of clinch
		0.2 ± 0.04 (5.05 ± 1.0) for S wires
Hole center to component center	P ₂	0.25 ± 0.02 (6.35 ± 0.4)
Change in pitch	p	± 0.04 (± 1.0)
Lead diameter	d	0.5 ± 0.05 (0.02 ± 0.003)
Lead spacing	S	See wireform table
Component alignment	h	0 ± 0.08 (0 ± 2.0)
Feed hole diameter	D	0.15 ± 0.008 (4.0 ± 0.2)
Tape width	W	0.7 + 0.04 (18.0 + 1.0) - 0.02 - 05)
Hold down tape width	W ₁	0.24 (6.0) min.
Hold down tape position	W ₂	0.04 (1.0) max.
Lead wire clinch height	H	0.63 ± 0.02 (16 ± 0.5) 0.75 ± 0.04 (19 ± 1.0) on request
Hole Position	H ₁	0.35 ± 0.02 (9.0 ± 0.5)
Base of component height	H ₂	0.7 (18) min.
Component height	H ₃	1.3 (32.25) max.
Length of snapped lead	L	0.43 (11.0) max.
Total tape thickness	T	0.03 ± 0.001 (0.7 ± 0.2)
		Carrying card 0.02 ± 0.005 (0.5 ± 0.1)

Reel Configuration and Dimensions inches (mm)

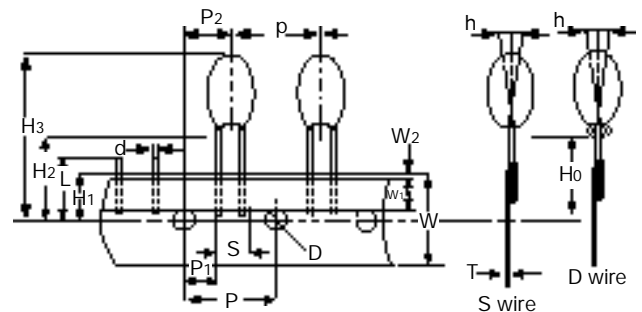
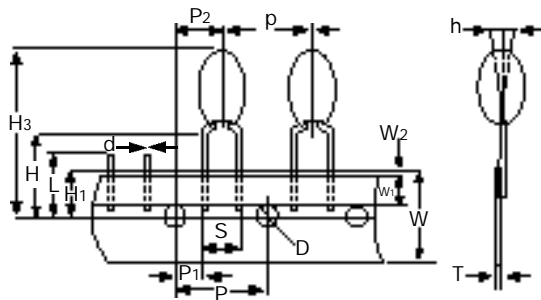


Manufactured from cardboard with plastic hub



Holding tape outside

Positive terminal leading (negative terminal by special request)



Packaging Quantities

For reels

Case Code	No. of pieces
A	1500
B, C, D	1250
E, F	1000
G, H, J	750
K, L, M	500
N, O	Consult Factory

For 'Ammo' pack

Case Code	No. of pieces
A, B, C, D	3000
E, F, G	2500
H	2000
I - O	Consult Factory

For bulk products

Case Code	No. of pieces
A to H	1000
I - O	Consult Factory