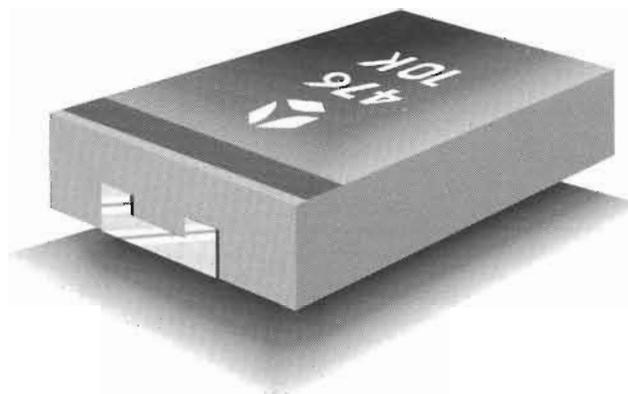


SOLID TANTALUM CHIP CAPACITOR - FT Series

• DESCRIPTION

The FT series is specifically designed for surface mount applications in accordance with EIA specifications. The four chip sizes offer capacitance values from. 1 μF to 330 μF with rated voltages from 6.3 V to 50 V.



• TECHNICAL CHARACTERISTICS

Operational temperature	- 55°C to 85°C; to 125°C with voltage derating									
Capacitance range	C_R	0.1 μF to 330 μF								
Tolerances on C_R	$\pm 10\%$ $\pm 20\%$									
Nominal voltage	U_R	U_R	$\leq 85^\circ\text{C}$	6.3	10.0	16	20	25	35	50
			$\leq 125^\circ\text{C}$	4.0	6.3	10	13	16	23	33
Surge voltage	V-	U_R	$\leq 85^\circ\text{C}$	8.0	13.0	20	26	33	46	65
			$\leq 125^\circ\text{C}$	5.0	9.0	12	16	21	28	40
Reverse voltage max.	20°C (1V — 0.15 U_R) / 85°C (1V — 0.05 U_R) 55°C (1V — 0.10 U_R) / 125°C (1V — 0.01 U_R)									
Dissipation factor (120 HZ, 20°C)	$\text{tg}\delta$	$\leq 4\%$ $\rightarrow C_R \leq 1 \mu\text{F}$ $\leq 6\%$ $\rightarrow C_R > 1 \mu\text{F}$ $\leq 8\%$ $\rightarrow C_R > 150 \mu\text{F}$								
Environmental classification	55 / 125 / 56 (IEC 68-2)									
Soldering	Compatible with wave soldering, IR or vapor phase reflow, withstand immersion in 260°C solder for 10 seconds.									
Tape information	Plastic reeled, 7" and 13"									

SOLID TANTALUM CHIP CAPACITOR - FT Series

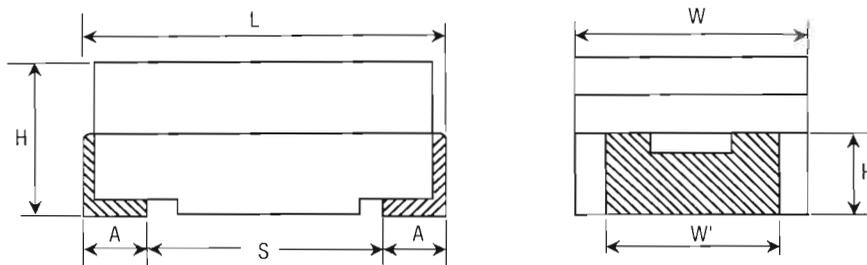
• CAP VS VOLTAGE CASE CODES

C_n (μF) \ U_n (V)	6.3 V	10 V	16 V	20 V	25 V	35 V	50 V
0.10 0.15 0.22						A A A	A50 B50 B50
0.33 0.47 0.68				A	A A	A A/B A/B	B50 C50 C50
1.00 1.50 2.20	A	A A	A A A/B	A A B	A A/B B	B B/C B/C	C50 D50 D50
3.30 4.70 6.80	A A A/B	A A/B B	A/B B B/C	B B/C C	B/C C C/D	C C/D D	D50 D50
10 15 22	A/B B/C B/C	B/C B/C C	B/C C C/D	C C/D D	C/D D D	D D E	
33 47 68	C C/D D	C/D D D	D D D	D E E	E		
100 150 220 330	D D E E	D E E	E				

• LEAKAGE CURRENT (μA)

C_R (μF) \ U_R (V)	6.3 V	10 V	16 V	20 V	25 V	35 V	50 V
0.10 0.15 0.22						0.5 0.5 0.5	0.5 0.5 0.5
0.33 0.47 0.68				0.5	0.5 0.5	0.5 0.5 0.5	0.5 0.5 0.5
1.00 1.50 2.20	0.5	0.5 0.5	0.5 0.5 0.5	0.5 0.5 0.5	0.5 0.5 0.6	0.5 0.5 0.8	0.5 0.8 1.1
3.30 4.70 6.80	0.5 0.5 0.5	0.5 0.5 0.7	0.5 0.8 1.1	0.7 1.0 1.4	0.9 1.2 1.7	1.2 1.6 2.4	1.7 2.4
10 15 22	0.6 1.0 1.4	1.0 1.5 2.2	1.6 2.4 3.5	2.0 3.0 4.4	2.5 3.8 5.5	3.5 5.3 7.7	
33 47 68	2.1 3.0 4.3	3.3 4.7 6.8	5.3 7.5 10.8	6.6 9.4 13.6	8.3		
100 150 220 330	6.3 9.0 13.2 19.8	10.0 15.0 22.0	16.0				

SOLID TANTALUM CHIP CAPACITOR - FT Series



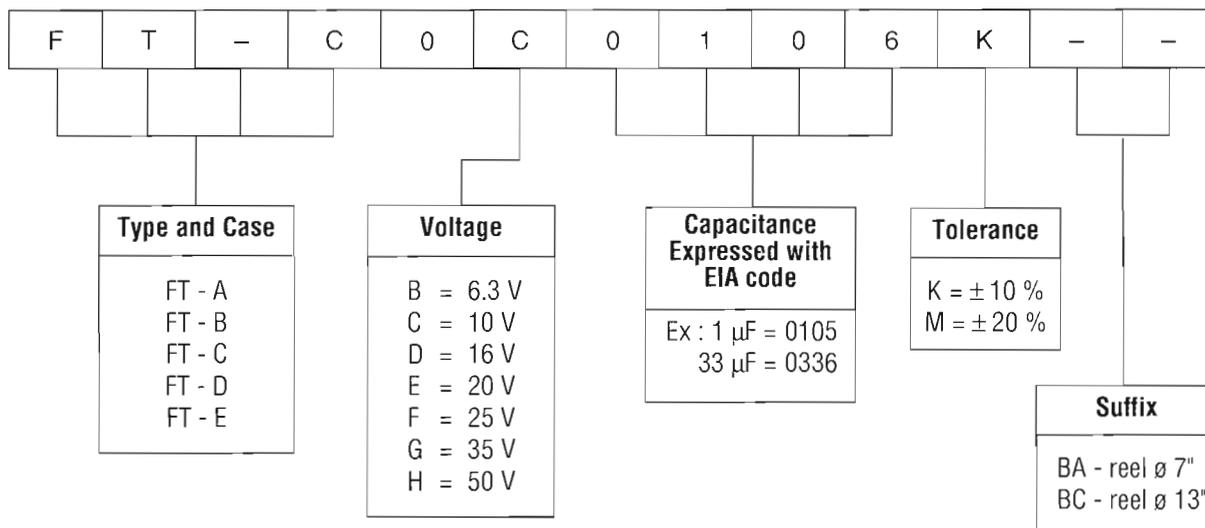
• DIMENSIONS

Format/size	$L \pm 0.2$	$W + 0.2$ $- 0.1$	$H + 0.2$ $- 0.1$	$W' \pm 0.1$	$A + 0.3$ $- 0.2$	S min
A	3.2	1.6	1.6	1.2	0.8	1.1
B	3.5	2.8	1.9	2.2	0.8	1.4
C	6.0	3.2	2.6	2.2	1.3	2.9
D	7.3	4.3	2.9	2.4	1.3	4.4
E	7.3	4.3	4.1	2.4	1.3	4.4

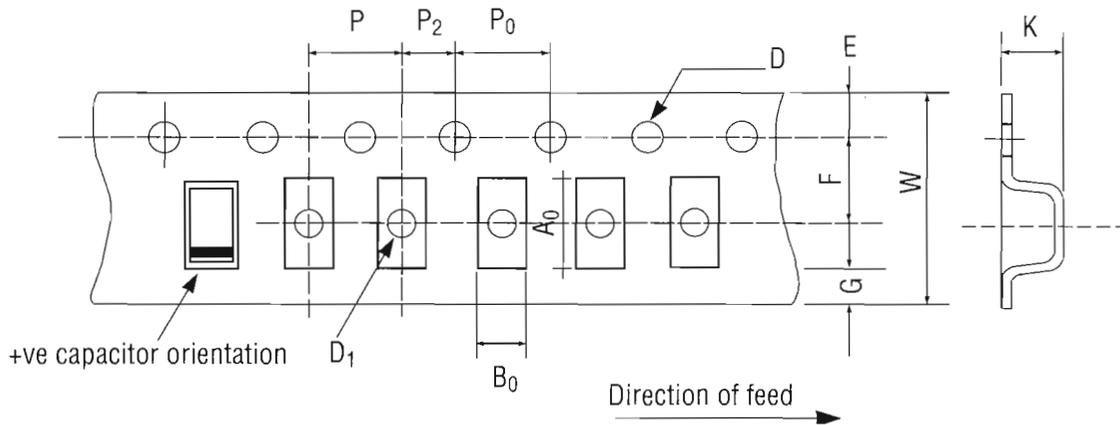
• MARKING



• HOW TO ORDER



SOLID TANTALUM CHIP CAPACITOR - FT Series



• TAPE SPECIFICATION

Dimensions A_0 and B_0 of the pocket and the tape thickness, K , are dependent on the component size.

Tape materials do not affect component solderability during storage.

Carrier Tape Thickness < 0.4 mm

code	8mm tape	12mm tape
P^*	(4 ± 0.1) or (8 ± 0.1)	(4 ± 0.1) or (8 ± 0.1)
G	1.75 min.	1.75 min.
F	3.5 ± 0.05	5.5 ± 0.005
E	1.75 ± 0.1	1.75 ± 0.1
W	8 ± 0.3	12 ± 0.3
P_2	2 ± 0.05	2 ± 0.05
P_0	4 ± 0.1	4 ± 0.1
D	$1.5 \pm 0.1 - 0$	$1.5 \pm 0.1 - 0$
D_1	1.0 min	1.5 min

* See taping suffix tables for actual P dimension (component pitch)

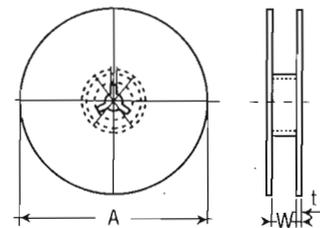
• PACKAGING FOR AUTOMATIC INSERTION

Packaging for specifications and reel dimensions are in accordance with IEC 286 and EIA 481.

• TAPING SUFFIX TABLE

Case size reference	Tape width mm	P mm	Thickness K max	7" (178mm) reel		13" (330mm) reel	
				Suffix	Qty.	Suffix	Qty.
A	8	4	2.3	BA	2000	BC	8000
B	8	4	2.6	BA	2000	BC	8000
C	12	8	3.3	BA	500	BC	3000
D	12	8	3.6	BA	500	BC	2500
E	12	8	4.8	BA	400	BC	1500

• REEL DIMENSIONS



Suffix	A max	W max	$t \pm 0.5$
BA	178 mm / 7"	10	2
BC	330 mm / 13"	14	2