

TANTALUM CHIP TANGOLD™ CAPACITORS

TS SERIES- General Purpose TSE SERIES- Low ESR



RESISTORS • CAPACITORS • COILS • DELAY LINES

New! Mini 0805 case size

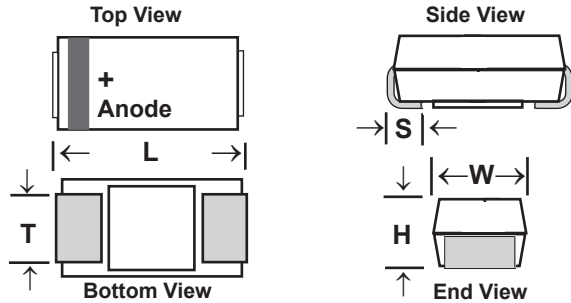


Term. W is Pb-free and RoHS compliant



- Epoxy molded, UL94V-0 Flame Retardant
- Excellent humidity and surge performance
- Low leakage current
- -55° to +125°C operating temperature range
- Extended capacitance range and low profile designs available

RCD's *Tangold™* construction provides superior performance and wide capacitance range as a result of a solid slug of high-gain tantalum powders sintered under vacuum. The flame retardant epoxy molding ensures optimum environmental protection and dielectric strength. Non-standard values, low-profile packages, custom marking, military screening, fusible, etc., are available.



DIMENSIONS (low profile version also available)

CASE SIZE	L	W	H	T	S
S (0805) [2012]	.079±.008 [2 ±0.2]	.049±.008 [1.25±0.2]	.047±.008 [1.2±0.2]	.043±.008 [1.1 ±0.2]	.020±.012 [.5±0.3]
A (1206) [3216]	.126±.008 [3.2±0.2]	.063±.008 [1.6±0.2]	.063±.008 [1.6±0.2]	.047±.008 [1.2±0.2]	.031±.012 [0.8±0.3]
B (1411) [3528]	.138±.008 [3.5±0.2]	.110±.008 [2.8±0.2]	.075±.008 [1.9±0.2]	.087±.008 [2.2±0.2]	.031±.012 [0.8±0.3]
C (2412) [6032]	.236±.012 [6.0±0.3]	.126±.012 [3.2±0.3]	.098±.012 [2.5±0.3]	.087±.008 [2.2±0.2]	.051±.012 [1.3±0.3]
D (2917) [7343]	.287±.012 [7.3±0.3]	.169±.012 [4.3±0.3]	.110±.012 [2.8±0.3]	.094±.008 [2.4±0.2]	.051±.012 [1.3±0.3]
E (2917H) [7343H]	.287±.012 [7.3±0.3]	.169±.012 [4.3±0.3]	.162±.012 [4.1±0.3]	.094±.008 [2.4±0.2]	.051±.012 [1.3±0.3]

STANDARD CAPACITANCE AND ESR (Ω) VALUES (extended value range available in each size, ESR is typ.)

Volt Rating 85°C ²	4VDC(5V Surge)			6.3VDC(8V Surge)			10VDC(13V Surge)			16VDC(20V Surge)			20VDC(26V Surge)			25VDC(33V Surge)			35VDC(46V Surge)			50VDC(65V Surge)							
	uF	Code	Case Size	'TS' ESR	'TSE' ESR	Case Size	'TS' ESR	'TSE' ESR	Case Size	'TS' ESR	'TSE' ESR	Case Size	'TS' ESR	'TSE' ESR	Case Size	'TS' ESR	'TSE' ESR	Case Size	'TS' ESR	'TSE' ESR	Case Size	'TS' ESR	'TSE' ESR						
0.1	104													S	25						A	24	10	A	22	10			
.15	154													S	25						A	21	6	B/A	17/15	10/10			
.22	224													S	25						A	18	6	B	14	10			
.33	334													S	25						A	15	6	B	12	2.5			
.47	474													S	25						A	14	9	B/A	10/12	2.5/4	C/B	8	1.8/2.0
.68	684								S	30				S	25						A/S	11/20	6	B	8	2.5	C/B	7	1.6/3.0
1.0	105				A/S	14/25			A/S	13/25			A/S	11/20	6/NA	A	9	5.5	B/A	7/8	2/4	B	6.5	2	C	5.5	1.6		
1.5	155	S	30		A/S	12/25			A/S	10	6/NA	A/S	8/12	6/NA	B/A	5/6.5	NA/4.5	B	5	1.5	C/B	4.5/5.2	2.5/3	D/C	4/4.5	1/1.5			
2.2	225	S	25		A/S	9/20	6/NA	A/S	7	6/NA	B/A	5.5/6.5	NA/4	B/A	3.5/5.3	1.5/4	B	4.5	2.2	C	3.5	1.5	D/C	2.5	.8/1.5				
3.3	335	A/S	9/20	4/NA	A/S	7/12	6/NA	B/A	5/5.5	NA/4	B/A	4.5/5	2/4	C/B	2.5/3	NA/1.3	C	2.8	1.2	D/C	2.0/2.5	NA/8	D	2.0	.8				
4.7	475	A/S	7.5/14	3.5/NA	B/A	5/6	NA/3.5	B/A	4/5	1.5/3	B/A	3.5/4	1.5/3	D/C	2.5/2.8	NA/6	C	2.4	.6	D/C	1.5/2.2	.7/7	D/E	1.4/9	.6				
6.8	685	B/A	6/6.5	NA/3	B/A	4/5	1.2/2	B/A	3/4	1.2/3	C/B	2.5/3.5	.8/1.2	D/C	1.8/2	NA/6	D/C	1.4/2	NA/6	D	1.3	.5	E	.9	.5				
10	106	B/A	4/6	1.2/2	B/A	3/4	1/2	B/A	2.5/3	.8/2	C/B	2/2.8	.6/8	D	1.3	NA/5	D/C	1.2/1.8	.4/6	D	1	.4	E	.9					
15	156	B/A	3.5/4	1.2/2	C/B	2.5/3.2	.6/7	C/B	2.2/2.8	.5/7	C	1.8	.4	D	1.1	.35	D	1	.4	E	.9	.3	E	.9					
22	226	C/B	2.5/3.2	.5/6	C/B	2/2.5	.5/6	C/B	1.8/2.4	.4/7	D/C	1.1/1.6	.25/35	D	.9	.3	D	.9	.4	E	.9	.3	E	.9					
33	336	C/B	2.2/2.8	.5/5	D/C	1.3/1.8	NA/3	D/C	1.1/1.6	.25/3	D/C	.9/1.5	.25/3	D	.9	.25	E	.9	.3	E	.9	.3							
47	476	D/C	1.3/1.8	NA/5	D/C	1.1/1.6	.22/2.5	D/C	.9/1.2	.22/3	D/C	.9/1.4	.2/3	E/D	.9/9	NA/2	E	.9	.3										
68	686	D/C	1.1/1.6	.2/2.5	D/C	.9/1.6	.2/2	D	.9	.2	D	.9	.15	E	.9	.2	E	.9	.3										
100	107	D/C	.9/1.3	.2/2	D/C	.9/1.4	.15/3	D	.9	.15	D/E	.9	.15/15	E	.9	.15	E	.9											
150	157	D/C	.7/1.0	.15/3	D	1	.15	E	1	.15	E	.9	.15																
220	227	D	.9	.15	E	1	.15	E	.9	.15	E	.9																	
330	337	E	.9	.15	E	.9	.15	E	.9	.1	E	.9																	
470	477	E	.9	.15	E	.9	.1	E	.9		E	.9																	
680	687	E	.9	.1	E	.5	.1	E	.9		E	.9																	

¹ Leakage current = 0.01C_uV (or 0.5uA, whichever is greater)
² Derate voltage rating by .825%/°C above 85°C

SPECIFICATIONS

CAPACITANCE (120 Hz)	ΔC FROM INITIAL @20°C			DISSIPATION FACTOR, TYP.			
	-55°C	+85°C	+125°C	-55°C	+20°C	+85°C	+125°C
<1.0uF	-10%	+10%	+12%	6%	4%	5%	6%
1.5 to 68uF				10%	6%	8%	10%
100 to 220uF				12%	8%	10%	12%
330 to 680uF				16%	12%	14%	16%

STANDARD PACKAGING

Case Size	7" Reel Qty, typ.	Tape Width
S	0805 [2012]	8mm
A	1206 [3216]	8mm
B	1411 [3528]	8mm
C	2412 [6032]	12mm
D	2917 [7343]	12mm
E	2917H [7343H]	12mm

P/N DESIGNATION:

