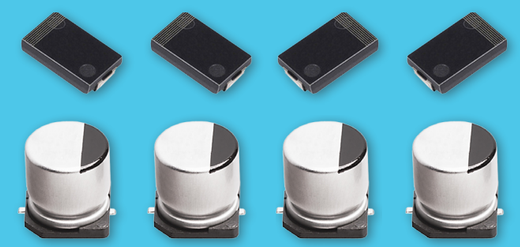
Tantalum Alternatives Cross Reference

Panasonic Electronic Components

Tantalum Capacitors							Panasonic SMT Low ESR Aluminum Electrolytic					Panasonic SMT Low ESR Aluminum Electrolytic					Panasonic SP-Cap Polymer Aluminum							
Rated voltage (V)	Cap(uF)	Size code / ESR(Ω)					Recommendation 1					Recommendation 2					Recommendation 1 (1/2 capacitance of Ta)				Recommendation 2 (Same capacitance of Ta)			
		B	C	V	D	E	EEE-FK Series					EEE-FP Series												
		3528-21	6032-28	7343-20	7343-31	7343-43	P/N	Size	R.V.(V)	Cap.(uF)	ESR(Ω)	P/N	Size	R.V.(V)	Cap.(uF)	ESR(Ω)	P/N	R.V.(V)	Cap.(uF)	ESR(Ω)	P/N	R.V.(V)	Cap.(uF)	ESR(Ω)
4 (Circuit voltage 2.0V max.)	100	0.65	0.20	-	0.20	-	EEEFKJ101UAR	C(5x5.8)	6.3	100	0.70	EEEFP0J101AP	D(6.3x5.8)	6.3	100	0.26	EEFCD0D101ER	2	100	0.018	-			
	150	1.00	0.30	0.20	0.15	-	EEEFK1A151AP	D(6.3x5.8)	10	220	0.36	EEEFP0J221AP	D(6.3x5.8)	6.3	220	0.26	EEFCD0D101ER	2	100	0.018	EEFCD0D151ER	2	150	0.018
	220	0.40	-	0.30	-	-	EEEFK0J221AP	D(6.3x5.8)	6.3	220	0.36	EEEFP0J221AP	D(6.3x5.8)	6.3	220	0.26	EEFCD0D101ER	2	100	0.018	EEFCD0D221ER	2	220	0.018
	330	-	0.09	0.30	0.15	-	EEEFKJ331XAP	D8(6.3x7.7)	6.3	330	0.34	EEEFPJ331XAP	D8(6.3x7.7)	6.3	330	0.16	EEFCD0D151ER	2	150	0.018	EEFCX0D331R	2	330	0.015
	470	-	-	-	0.15	0.15	EEEFK0J471AP	F(8x10)	6.3	470	0.16	EEEFP0J471AP	F(8x10)	6.3	470	0.08	EEFCD0D221ER	2	220	0.018	EEFCX0D471R	2	470	0.015
	680	-	-	-	0.15	0.10	EEEFK1A681AP	F(8x10)	10	680	0.16	EEEFP1A681AP	F(8x10)	10.0	680	0.08	EEFCX0D331R	2	330	0.015	-			
	1000	-	-	-	-	0.10	EEEFK0J102AP	G(10x10)	6.3	1000	0.08	EEEFP0J102AP	G(10x10)	6.3	1000	0.06	EEFCX0D471R	2	470	0.015	-			
6.3 (Circuit voltage 2.5V-3.3V)	47	0.50	0.25	-	0.22	-	EEEFK1C470AP	D(6.3x5.8)	16	47	0.36	EEEFP0J470AR	C(5x5.8)	6.3	47	0.36	EEFCD0J220ER	6.3	22	0.040	EEFCD0J470ER	6.3	47	0.018
	68	0.65	0.20	-	0.20	-	EEEFKJ101UAR	C(5x5.8)	6.3	100	0.70	EEEFP0J101AP	D(6.3x5.8)	6.3	100	0.26	EEFCD0J330ER	6.3	33	0.028	EEFCD0G680ER	4	68	0.018
	100	1.50	0.30	0.20	0.15	-	EEEFKJ101UAR	C(5x5.8)	6.3	100	0.70	EEEFP0J101AP	D(6.3x5.8)	6.3	100	0.26	EEFCD0J470ER	6.3	47	0.018	EEFCD0G101ER	4	100	0.018
	150	-	0.30	0.30	0.15	-	EEEFK1A151AP	D(6.3x5.8)	10	220	0.36	EEEFP0J221AP	D(6.3x5.8)	6.3	220	0.26	EEFCD0G820ER	4	82	0.018	EEFCX0G151R	4	150	0.015
	220	-	0.30	0.30	0.15	0.15	EEEFK0J221AP	D(6.3x5.8)	6.3	220	0.36	EEEFP0J221AP	D(6.3x5.8)	6.3	220	0.26	EEFCD0G101ER	4	100	0.018	EEFCX0G221R	4	220	0.015
	330	-	-	-	0.15	0.15	EEEFKJ331XAP	D8(6.3x7.7)	6.3	330	0.34	EEEFPJ331XAP	D8(6.3x7.7)	6.3	330	0.16	EEFCX0G151R	4	150	0.015	-			
	470	-	-	-	0.15	0.10	EEEFK0J471AP	F(8x10)	6.3	470	0.16	EEEFP0J471AP	F(8x10)	6.3	470	0.08	EEFCX0G221R	4	220	0.015	-			
10 (Circuit voltage 3.3V-5V)	22	0.70	0.40	-	-	-	EEEFK1C220AR	C(5x5.8)	16	22	0.70	EEEFP1C220AR	C(4x5.8)	16	22	0.36	EEFCD0J100ER	6.3	10	0.055	EEFCD0J220ER	6.3	22	0.040
	47	0.65	0.30	0.30	0.22	-	EEEFKC470UAR	C(5x5.8)	16	47	0.70	EEEFP1C470AP	D(6.3x5.8)	16	47	0.26	EEFCD0J220ER	6.3	22	0.040	EEFCD0J470ER	6.3	47	0.018
	68	1.50	0.30	0.30	0.20	-	EEEFK1C680AP	D(6.3x5.8)	16	68	0.36	EEEFP1C680AP	D(6.3x5.8)	16	68	0.26	EEFCD0J330ER	6.3	33	0.028	EEFCD0J680ER	6.3	68	0.018
	100	-	0.20	0.40	0.15	-	EEEFK1C101AP	D(6.3x5.8)	16	100	0.36	EEEFP1C101AP	D(6.3x5.8)	16	100	0.26	EEFCD0J470ER	6.3	47	0.018	EEFCX0J101R	6.3	100	0.015
	150	-	0.70	0.30	0.15	0.15	EEEFK1A151AP	D(6.3x5.8)	10	150	0.36	EEEFPC151XAP	D8(6.3x7.7)	16	150	0.16	EEFCD0J680ER	6.3	68	0.018	EEFCX0J151R	6.3	150	0.015
	220	-	-	0.50	0.15	0.15	EEEFKA221XAP	D8(6.3x7.7)	10	220	0.34	EEEFPA221XAP	D8(6.3x7.7)	10	220	0.16	EEFCX0J101R	6.3	100	0.015	-			
	330	-	-	-	0.15	0.10	EEEFK1A331AP	F(8x10)	10	330	0.16	EEEFP1A331AP	F(8x10)	10	330	0.08	EEFCX0J151R	6.3	150	0.015	-			
	470	-	-	-	0.10	0.10	EEEFK1A471AP	F(8x10)	10	470	0.16	EEEFP1A471AP	F(8x10)	10	470	0.08	EEFCX0G221R	4	220	0.015	-			
16 (Circuit voltage 5V-8V)	10	0.80	0.60	-	-	-	EEEFK1V100AR	C(5x5.8)	35	10	0.70	EEEFP1C220AR	C(4x5.8)	16	10	0.36	EEFCD1A220ER	10	22	0.025	EEFCD0J100ER	6.3	10	0.055
	22	1.00	0.35	-	0.25	-	EEEFK1C220AR	C(5x5.8)	16	22	0.70	EEEFP1E330AP	D(6.3x5.8)	25	33	0.26	EEFCD1A220ER	10	22	0.025	EEFCD0J220ER	6.3	22	0.040
	33	-	0.30	-	0.25	-	EEEFK1V330AP	D(6.3x5.8)	35	33	0.36	EEEFP1E330AP	D(6.3x5.8)	25	33	0.26	EEFCD1A220ER	10	22	0.025	EEFCD0J330ER	6.3	33	0.028
	47	-	0.50	0.30	0.20	-	EEEFK1C470AP	D(6.3x5.8)	16	47	0.36	EEEFP1C470AP	D(6.3x5.8)	16	47	0.26	EEFCD1A220ER	10	22	0.025	EEFCD0J470ER	6.3	47	0.018
	68	-	1.00	0.50	0.15	-	EEEFK1C680AP	D(6.3x5.8)	16	68	0.36	EEEFPC101XAP	D8(6.3x7.7)	16	100	0.16	EEFCD1A330ER	10	33	0.025	EEFCD0J680ER	6.3	68	0.018
	100	-	-	0.50	0.15	-	EEEFK1C101AP	D(6.3x5.8)	16	100	0.36	EEEFPC101XAP	D8(6.3x7.7)	16	100	0.16	EEFCD0J470ER	6.3	47	0.018	EEFCX0J101R	6.3	100	0.015
	150	-	-	-	0.40	0.15	EEEFKC151XAP	D8(6.3x7.7)	16	150	0.34	EEEFPC151XAP	D8(6.3x7.7)	16	150	0.16	EEFCD0J680ER	6.3	68	0.018	EEFCX0J151R	6.3	150	0.015
	220	-	-	-	-	0.40	EEEFKC221XAP	D8(6.3x7.7)	16	220	0.34	EEEFPC221XAP	D8(6.3x7.7)	16	220	0.16	EEFCX0J101R	6.3	100	0.015	-			
25	10	3.00	0.60	-	0.40	-	EEEFK1E100AR	B(4x5.8)	25	10	.1.35	EEEFP1E100AR	B(4x5.8)	25	10	0.85								
	22	-	1.00	0.50	0.30	-	EEEFK1E220AR	C(5x5.8)	25	22	0.70	EEEFP1E220AR	C(5x5.8)	25	22	0.36								
	33	-	1.00	-	0.40	0.30	EEEFKE330UAR	C(5x5.8)	25	33	0.70	EEEFPE330UAR	C(5x5.8)	25	33	0.36								
	47	-	-	-	0.20	0.30	EEEFK1E470AP	D(6.3x5.8)	25	47	0.36	EEEFP1E470AP	D(6.3x5.8)	25	47	0.26								
	68	-	-	-	0.50	0.30	EEEFK1E680AP	D(6.3x5.8)	25	68	0.36	EEEFP1E680AP	D(6.3x5.8)	25	68	0.26								
	100	-	-	-	-	0.25	EEEFKE101XAP	D8(6.3x7.7)	25	100	0.34	EEEFPE101XAP	D8(6.3x7.7)	25	100	0.18								
	150	-	-	-	-	-																		
	220	-	-	-	-	-																		
35	10	-	1.20	0.80	0.40	-	EEEFKV100UAR	B(4x5.8)	35	10	.1.35	EEEFPV100UAR	B(4x5.8)	35	10	0.85								
	22	-	-	-	0.40	0.30	EEEFK1V220AR	C(5x5.8)	35	22	0.70	EEEFP1V220AR	C(5x5.8)	35	22	0.36								
	33	-	-	-	0.60	0.60	EEEFK1V330AP	D(6.3x5.8)	35	33	0.36	EEEFP1V330AP	D(6.3x5.8)	35	33	0.26								
	47	-	-	-	-	0.50	EEEFK1V470AP	D(6.3x5.8)	35	47	0.36	EEEFP1V470AP	D(6.3x5.8)	35	47	0.26								
	68	-	-	-	-	-																		
	100	-	-	-	-	-																		
	150	-	-	-	-	-																		
	220	-	-	-	-	-																		
50	10	-	-	-	0.70	0.40	EEEFK1H100P	D(6.3x5.8)	50	10	0.88													
	22	-	-	-	-	0.50	EEEFK1H220XP	D8(6.3x7.7)	50	22	0.68													
	33	-	-	-	-	-																		
	47	-	-	-	-	-																		
	68	-	-	-	-	-																		
	100	-	-	-	-	-																		
	150	-	-	-	-	-																		
	220	-	-	-	-	-																		



Two Options From Panasonic Electronic Components To Help You Avoid The Tantalum Trap

Use this cross references to choose a Tantalum Alternative Solution.

- SMT Aluminum Electrolytics
- SP-Caps

A local Panasonic Sales Representative is available to work with you on Tantalum alternative designs.
Call 1-800-344-2112 for assistance.

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