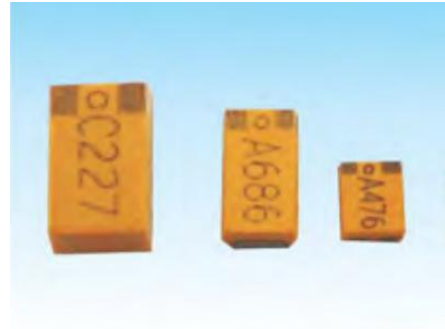




MIL Tantalum Solid Electrolytic Chip Capacitors with Conductive Polymer Electrode Ultra-low ESR

❖ Feature:

- Conductive polymer electrode without ignition failure mode
- Ultra-lower ESR
- 3x reflow 260°C compatible
- 100% test through surge current
- Capacitance is stable at high frequency
- Ripple current capacity particularly strong
- Military standard, high reliability
- Standard meet: GJB2283-95, QJ/PWV501-2011
- Widely used in electronic equipment for military applications such as telecommunication, ship, aerospace and aviation.



❖ General Characteristics

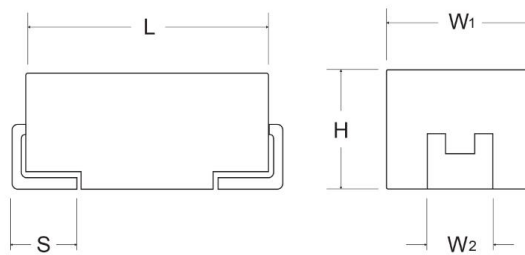
Operating temperature: -55°C ~ +125°C (>85°C, use derated voltage)

Capacitance Tolerance: M=±20%, K=±10%, J=±5%

Capacitance Range: 1μF~2200μF

Voltage Rating: 2.5V~25V

❖ Drawing and Case Dimension



Unit(mm)

Case code	L	W ₁	H	S	W ₂
A	3.2±0.2	1.6±0.2	1.6±0.2	0.8±0.2	1.2±0.2
B	3.5±0.2	2.8±0.2	1.9±0.2	0.8±0.2	2.2±0.2
C	6.0±0.2	3.2±0.2	2.5±0.2	1.3±0.2	2.2±0.2
D	7.3±0.2	4.3±0.2	2.8±0.2	1.5±0.2	2.4±0.2
E	7.3±0.2	4.3±0.2	4.1±0.2	1.5±0.2	2.4±0.2
V	7.3±0.2	6.1±0.2	3.6±0.2	1.5±0.2	3.0±0.2
W	7.3±0.2	6.1±0.2	4.1±0.2	1.5±0.2	3.0±0.2
T	11.0±0.2	12.5±0.2	5.5±0.2	2.1±0.2	10.5±0.2



❖ **Capacitance and Voltage Range with Case Code.**

Cap.(Cr) μF	Case Code	ESR max. 100KHz +25℃ Ω	Ripple current AC Max. 100KHz/+85℃ A	DCL. max μA			Cap. Change rate %			Max. tgδ(%)		
				+25℃	+85℃	+125℃	-55℃	+85℃	+125℃	-55℃ +25℃	+85℃	+125℃
Rated Voltage (Ur)2.5V (Voltage derating 1.7V)												
47	C	0.060	1.38	11.8	94.0	117.5	-10~+10	-10~+30	-10~+50	10	12	15
47	B	0.090	0.99	11.8	94.0	117.5	-10~+10	-10~+30	-10~+50	10	12	15
68	C	0.060	1.38	17.0	136.0	170.0	-10~+10	-10~+30	-10~+50	10	12	15
68	B	0.090	0.99	17.0	136.0	170.0	-10~+10	-10~+30	-10~+50	10	12	15
100	C	0.060	1.38	25.0	200.0	250.0	-10~+10	-10~+30	-10~+50	10	12	15
150	D	0.045	1.87	37.5	300.0	375.0	-10~+10	-10~+30	-10~+50	10	12	15
220	D	0.045	1.87	55.0	440.0	550.0	-10~+10	-10~+30	-10~+50	10	12	15
330	D	0.045	1.87	82.5	660.0	825.0	-10~+10	-10~+30	-10~+50	10	12	15
470	D	0.045	1.87	117.5	940.0	1175.0	-10~+10	-10~+30	-10~+50	10	12	15
680	E	0.025	2.62	170.0	1360.0	1700.0	-10~+10	-10~+30	-10~+50	10	12	15
1000	V	0.040	2.29	250.0	2000.0	2500.0	-10~+10	-10~+30	-10~+50	10	12	15
1000	E	0.050	1.85	250.0	2000.0	2500.0	-10~+10	-10~+30	-10~+50	10	12	15
1000	E	0.020	2.94	250.0	2000.0	2500.0	-10~+10	-10~+30	-10~+50	10	12	15
1500	W	0.025	2.93	375.0	3000.0	3750.0	-10~+10	-10~+30	-10~+50	10	12	15
2200	T	0.025	4.14	550.0	4400.0	5500.0	-10~+10	-10~+30	-10~+50	10	12	15
Rated Voltage (Ur)4V (Voltage derating 2.7V)												
4.7	A	0.150	0.72	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	A	0.150	0.72	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
10	A	0.150	0.72	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
15	B	0.100	0.94	6.0	48.0	60.0	-10~+10	-10~+30	-10~+50	10	12	15
15	A	0.150	0.72	6.0	48.0	60.0	-10~+10	-10~+30	-10~+50	10	12	15
22	C	0.060	1.38	8.8	70.4	88.0	-10~+10	-10~+30	-10~+50	10	12	15
22	B	0.090	0.99	8.8	70.4	88.0	-10~+10	-10~+30	-10~+50	10	12	15
22	A	0.250	0.56	8.8	70.4	88.0	-10~+10	-10~+30	-10~+50	10	12	15
33	C	0.060	1.38	13.2	105.6	132.0	-10~+10	-10~+30	-10~+50	10	12	15
33	B	0.090	0.99	13.2	105.6	132.0	-10~+10	-10~+30	-10~+50	10	12	15
47	C	0.060	1.38	18.8	150.4	188.0	-10~+10	-10~+30	-10~+50	10	12	15
47	B	0.090	0.99	18.8	150.4	188.0	-10~+10	-10~+30	-10~+50	10	12	15
68	C	0.060	1.38	27.2	217.6	272.0	-10~+10	-10~+30	-10~+50	10	12	15
68	B	0.090	0.99	27.2	217.6	272.0	-10~+10	-10~+30	-10~+50	10	12	15
100	D	0.045	1.87	40.0	320.0	400.0	-10~+10	-10~+30	-10~+50	10	12	15
100	C	0.060	1.38	40.0	320.0	400.0	-10~+10	-10~+30	-10~+50	10	12	15
150	D	0.045	1.87	60.0	480.0	600.0	-10~+10	-10~+30	-10~+50	10	12	15
150	H	0.060	1.47	60.0	480.0	600.0	-10~+10	-10~+30	-10~+50	10	12	15
220	D	0.045	1.87	88.0	704.0	880.0	-10~+10	-10~+30	-10~+50	10	12	15
330	E	0.025	2.62	132.0	1056.0	1320.0	-10~+10	-10~+30	-10~+50	10	12	15
330	D	0.060	1.62	132.0	1056.0	1320.0	-10~+10	-10~+30	-10~+50	10	12	15
330	D	0.045	1.87	132.0	1056.0	1320.0	-10~+10	-10~+30	-10~+50	10	12	15
470	E	0.025	2.62	188.0	1504.0	1880.0	-10~+10	-10~+30	-10~+50	10	12	15



Cap.(Cr) μF	Case Code	ESR max. 100KHz +25°C Ω	Ripple current AC Max. 100KHz/+85°C A	DCL. max μA			Cap. Change rate %			Max. tgδ(%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C +25°C	+85°C	+125°C
Rated Voltage (Ur)4V (Voltage derating 2.7V)												
470	D	0.045	1.87	188.0	1504.0	1880.0	-10~+10	-10~+30	-10~+50	10	12	15
680	V	0.025	2.9	272.0	2176.0	2720.0	-10~+10	-10~+30	-10~+50	10	12	15
680	E	0.050	1.85	272.0	2176.0	2720.0	-10~+10	-10~+30	-10~+50	10	12	15
680	E	0.025	2.62	272.0	2176.0	2720.0	-10~+10	-10~+30	-10~+50	10	12	15
1000	W	0.025	2.93	400.0	3200.0	4000.0	-10~+10	-10~+30	-10~+50	10	12	15
1500	T	0.025	4.14	600.0	4800.0	6000.0	-10~+10	-10~+30	-10~+50	10	12	15
2200	T	0.025	4.14	880.0	7040.0	8800.0	-10~+10	-10~+30	-10~+50	10	12	15
Rated Voltage (Ur)6.3V (Voltage derating 4V)												
2.2	A	0.250	0.56	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	A	0.250	0.56	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	A	0.250	0.56	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	B	0.100	0.94	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	A	0.250	0.56	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
10	B	0.100	0.94	6.3	50.4	63.0	-10~+10	-10~+30	-10~+50	10	12	15
10	A	0.120	0.80	6.3	50.4	63.0	-10~+10	-10~+30	-10~+50	10	12	15
10	A	0.250	0.56	6.3	50.4	63.0	-10~+10	-10~+30	-10~+50	10	12	15
15	B	0.100	0.94	9.5	75.6	94.5	-10~+10	-10~+30	-10~+50	10	12	15
15	A	0.250	0.56	9.5	75.6	94.5	-10~+10	-10~+30	-10~+50	10	12	15
22	C	0.060	1.38	13.9	110.9	138.6	-10~+10	-10~+30	-10~+50	10	12	15
22	B	0.090	0.99	13.9	110.9	138.6	-10~+10	-10~+30	-10~+50	10	12	15
22	A	0.250	0.56	13.9	110.9	138.6	-10~+10	-10~+30	-10~+50	10	12	15
33	C	0.060	1.38	20.8	166.3	207.9	-10~+10	-10~+30	-10~+50	10	12	15
33	B	0.090	0.99	20.8	166.3	207.9	-10~+10	-10~+30	-10~+50	10	12	15
47	C	0.060	1.38	29.6	236.9	296.1	-10~+10	-10~+30	-10~+50	10	12	15
47	B	0.090	0.99	29.6	236.9	296.1	-10~+10	-10~+30	-10~+50	10	12	15
68	D	0.045	1.87	42.8	342.7	428.4	-10~+10	-10~+30	-10~+50	10	12	15
68	D	0.060	1.62	42.8	342.7	428.4	-10~+10	-10~+30	-10~+50	10	12	15
68	C	0.060	1.38	42.8	342.7	428.4	-10~+10	-10~+30	-10~+50	10	12	15
68	B	0.090	0.99	42.8	342.7	428.4	-10~+10	-10~+30	-10~+50	10	12	15
100	D	0.060	1.62	63.0	504.0	630.0	-10~+10	-10~+30	-10~+50	10	12	15
100	H	0.060	1.47	63.0	504.0	630.0	-10~+10	-10~+30	-10~+50	10	12	15
100	C	0.060	1.38	63.0	504.0	630.0	-10~+10	-10~+30	-10~+50	10	12	15
150	D	0.045	1.87	94.5	756.0	945.0	-10~+10	-10~+30	-10~+50	10	12	15
150	H	0.060	1.47	94.5	756.0	945.0	-10~+10	-10~+30	-10~+50	10	12	15
220	E	0.025	2.62	138.6	1108.8	1386.0	-10~+10	-10~+30	-10~+50	10	12	15
220	D	0.045	1.87	138.6	1108.8	1386.0	-10~+10	-10~+30	-10~+50	10	12	15
220	H	0.060	1.47	138.6	1108.8	1386.0	-10~+10	-10~+30	-10~+50	10	12	15
330	E	0.050	1.85	207.9	1663.2	2079.0	-10~+10	-10~+30	-10~+50	10	12	15
330	E	0.025	2.62	207.9	1663.2	2079.0	-10~+10	-10~+30	-10~+50	10	12	15



Low ESR Tantalum Chip Capacitors
Shanghai Green Tech Co.,Ltd.

CAK55

Cap.(Cr) μF	Case Code	ESR max. 100KHz +25°C Ω	Ripple current AC Max. 100KHz/+85°C A	DCL. max μA			Cap. Change rate %			Max. tgδ(%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C +25°C	+85°C	+125°C
Rated Voltage (Ur)6.3V (Voltage derating 4V)												
330	D	0.060	1.62	207.9	1663.2	2079.0	-10~+10	-10~+30	-10~+50	10	12	15
330	D	0.045	1.87	207.9	1663.2	2079.0	-10~+10	-10~+30	-10~+50	10	12	15
470	V	0.025	2.9	296.1	2368.8	2961.0	-10~+10	-10~+30	-10~+50	10	12	15
470	E	0.050	1.85	296.1	2368.8	2961.0	-10~+10	-10~+30	-10~+50	10	12	15
470	E	0.025	2.62	296.1	2368.8	2961.0	-10~+10	-10~+30	-10~+50	10	12	15
680	V	0.025	2.9	428.4	3427.2	4284.0	-10~+10	-10~+30	-10~+50	10	12	15
680	E	0.050	1.85	428.4	3427.2	4284.0	-10~+10	-10~+30	-10~+50	10	12	15
680	E	0.025	2.62	428.4	3427.2	4284.0	-10~+10	-10~+30	-10~+50	10	12	15
1000	W	0.025	2.93	630.0	5040.0	6300.0	-10~+10	-10~+30	-10~+50	10	12	15
1500	T	0.025	4.14	945.0	7560.0	9450.0	-10~+10	-10~+30	-10~+50	10	12	15
2200	T	0.025	4.14	1386.0	11088.0	13860.0	-10~+10	-10~+30	-10~+50	10	12	15
Rated Voltage (Ur)10V (Voltage derating 7V)												
1	A	0.250	0.56	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	A	0.250	0.56	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	A	0.250	0.56	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	B	0.100	0.94	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	A	0.250	0.56	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	B	0.100	0.94	6.8	54.4	68.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	A	0.250	0.56	6.8	54.4	68.0	-10~+10	-10~+30	-10~+50	10	12	15
10	B	0.100	0.94	10.0	80.0	100.0	-10~+10	-10~+30	-10~+50	10	12	15
10	A	0.120	0.8	10.0	80.0	100.0	-10~+10	-10~+30	-10~+50	10	12	15
10	A	0.250	0.56	10.0	80.0	100.0	-10~+10	-10~+30	-10~+50	10	12	15
15	C	0.060	1.38	15.0	120.0	150.0	-10~+10	-10~+30	-10~+50	10	12	15
15	B	0.090	0.99	15.0	120.0	150.0	-10~+10	-10~+30	-10~+50	10	12	15
15	A	0.250	0.56	15.0	120.0	150.0	-10~+10	-10~+30	-10~+50	10	12	15
22	C	0.060	1.38	22.0	176.0	220.0	-10~+10	-10~+30	-10~+50	10	12	15
22	B	0.090	0.99	22.0	176.0	220.0	-10~+10	-10~+30	-10~+50	10	12	15
22	A	0.250	0.56	22.0	176.0	220.0	-10~+10	-10~+30	-10~+50	10	12	15
33	C	0.060	1.38	33.0	264.0	330.0	-10~+10	-10~+30	-10~+50	10	12	15
33	B	0.090	0.99	33.0	264.0	330.0	-10~+10	-10~+30	-10~+50	10	12	15
47	D	0.045	1.87	47.0	376.0	470.0	-10~+10	-10~+30	-10~+50	10	12	15
47	C	0.060	1.38	47.0	376.0	470.0	-10~+10	-10~+30	-10~+50	10	12	15
47	B	0.090	0.99	47.0	376.0	470.0	-10~+10	-10~+30	-10~+50	10	12	15
68	D	0.045	1.87	68.0	544.0	680.0	-10~+10	-10~+30	-10~+50	10	12	15
68	H	0.060	1.47	68.0	544.0	680.0	-10~+10	-10~+30	-10~+50	10	12	15
68	C	0.060	1.38	68.0	544.0	680.0	-10~+10	-10~+30	-10~+50	10	12	15
100	D	0.060	1.62	100.0	800.0	1000.0	-10~+10	-10~+30	-10~+50	10	12	15
100	D	0.045	1.87	100.0	800.0	1000.0	-10~+10	-10~+30	-10~+50	10	12	15
100	H	0.060	1.47	100.0	800.0	1000.0	-10~+10	-10~+30	-10~+50	10	12	15



Cap.(Cr) μF	Case Code	ESR max. 100KHz +25°C Ω	Ripple current AC Max. 100KHz/+85°C A	DCL. max μA			Cap. Change rate %			Max. tgδ(%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C +25°C	+85°C	+125°C
Rated Voltage (Ur)10V (Voltage derating 7V)												
100	C	0.060	1.38	100.0	800.0	1000.0	-10~+10	-10~+30	-10~+50	10	12	15
150	E	0.050	1.85	150.0	1200.0	1500.0	-10~+10	-10~+30	-10~+50	10	12	15
150	E	0.025	2.62	150.0	1200.0	1500.0	-10~+10	-10~+30	-10~+50	10	12	15
150	D	0.060	1.62	150.0	1200.0	1500.0	-10~+10	-10~+30	-10~+50	10	12	15
150	D	0.045	1.87	150.0	1200.0	1500.0	-10~+10	-10~+30	-10~+50	10	12	15
150	H	0.060	1.47	150.0	1200.0	1500.0	-10~+10	-10~+30	-10~+50	10	12	15
220	E	0.050	1.85	220.0	1760.0	2200.0	-10~+10	-10~+30	-10~+50	10	12	15
220	E	0.025	2.62	220.0	1760.0	2200.0	-10~+10	-10~+30	-10~+50	10	12	15
220	D	0.045	1.87	220.0	1760.0	2200.0	-10~+10	-10~+30	-10~+50	10	12	15
220	H	0.060	1.47	220.0	1760.0	2200.0	-10~+10	-10~+30	-10~+50	10	12	15
330	V	0.040	2.29	330.0	2640.0	3300.0	-10~+10	-10~+30	-10~+50	10	12	15
330	V	0.025	2.9	330.0	2640.0	3300.0	-10~+10	-10~+30	-10~+50	10	12	15
330	E	0.050	1.85	330.0	2640.0	3300.0	-10~+10	-10~+30	-10~+50	10	12	15
330	E	0.025	2.62	330.0	2640.0	3300.0	-10~+10	-10~+30	-10~+50	10	12	15
470	V	0.040	2.29	470.0	3760.0	4700.0	-10~+10	-10~+30	-10~+50	10	12	15
470	V	0.025	2.9	470.0	3760.0	4700.0	-10~+10	-10~+30	-10~+50	10	12	15
470	E	0.050	1.85	470.0	3760.0	4700.0	-10~+10	-10~+30	-10~+50	10	12	15
470	E	0.025	2.62	470.0	3760.0	4700.0	-10~+10	-10~+30	-10~+50	10	12	15
680	T	0.025	4.14	680.0	5440.0	6800.0	-10~+10	-10~+30	-10~+50	10	12	15
680	W	0.025	2.93	680.0	5440.0	6800.0	-10~+10	-10~+30	-10~+50	10	12	15
1000	T	0.025	4.14	1000.0	8000.0	10000.0	-10~+10	-10~+30	-10~+50	10	12	15
1500	T	0.025	4.14	1500.0	12000.0	15000.0	-10~+10	-10~+30	-10~+50	10	12	15
Rated Voltage (Ur)16V (Voltage derating 10V)												
1	A	0.250	0.56	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	B	0.100	0.94	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	A	0.250	0.56	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	B	0.100	0.94	5.3	42.2	52.8	-10~+10	-10~+30	-10~+50	10	12	15
3.3	A	0.250	0.56	5.3	42.2	52.8	-10~+10	-10~+30	-10~+50	10	12	15
4.7	B	0.150	0.76	7.5	60.2	75.2	-10~+10	-10~+30	-10~+50	10	12	15
4.7	A	0.250	0.56	7.5	60.2	75.2	-10~+10	-10~+30	-10~+50	10	12	15
6.8	B	0.150	0.76	10.9	87.0	108.8	-10~+10	-10~+30	-10~+50	10	12	15
6.8	A	0.250	0.56	10.9	87.0	108.8	-10~+10	-10~+30	-10~+50	10	12	15
10	B	0.100	0.94	16.0	128.0	160.0	-10~+10	-10~+30	-10~+50	10	12	15
10	B	0.150	0.76	16.0	128.0	160.0	-10~+10	-10~+30	-10~+50	10	12	15
10	A	0.250	0.56	16.0	128.0	160.0	-10~+10	-10~+30	-10~+50	10	12	15
15	C	0.060	1.38	24.0	192.0	240.0	-10~+10	-10~+30	-10~+50	10	12	15
15	B	0.100	0.94	24.0	192.0	240.0	-10~+10	-10~+30	-10~+50	10	12	15
22	D	0.060	1.62	35.2	281.6	352.0	-10~+10	-10~+30	-10~+50	10	12	15
22	D	0.045	1.87	35.2	281.6	352.0	-10~+10	-10~+30	-10~+50	10	12	15



Low ESR Tantalum Chip Capacitors
Shanghai Green Tech Co.,Ltd.

CAK55

Cap.(Cr) μF	Case Code	ESR max. 100KHz +25°C Ω	Ripple current AC Max. 100KHz/+85°C A	DCL. max μA			Cap. Change rate %			Max. tgδ(%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C +25°C	+85°C	+125°C
Rated Voltage (Ur)16V (Voltage derating 10V)												
22	C	0.060	1.38	35.2	281.6	352.0	-10~+10	-10~+30	-10~+50	10	12	15
22	B	0.150	0.76	35.2	281.6	352.0	-10~+10	-10~+30	-10~+50	10	12	15
33	D	0.045	1.87	52.8	422.4	528.0	-10~+10	-10~+30	-10~+50	10	12	15
33	H	0.060	1.47	52.8	422.4	528.0	-10~+10	-10~+30	-10~+50	10	12	15
33	C	0.060	1.38	52.8	422.4	528.0	-10~+10	-10~+30	-10~+50	10	12	15
47	D	0.060	1.62	75.2	601.6	752.0	-10~+10	-10~+30	-10~+50	10	12	15
47	D	0.045	1.87	75.2	601.6	752.0	-10~+10	-10~+30	-10~+50	10	12	15
47	H	0.060	1.47	75.2	601.6	752.0	-10~+10	-10~+30	-10~+50	10	12	15
47	C	0.060	1.38	75.2	601.6	752.0	-10~+10	-10~+30	-10~+50	10	12	15
68	E	0.050	1.85	108.8	870.4	1088.0	-10~+10	-10~+30	-10~+50	10	12	15
68	E	0.025	2.62	108.8	870.4	1088.0	-10~+10	-10~+30	-10~+50	10	12	15
68	D	0.060	1.62	108.8	870.4	1088.0	-10~+10	-10~+30	-10~+50	10	12	15
68	D	0.045	1.87	108.8	870.4	1088.0	-10~+10	-10~+30	-10~+50	10	12	15
100	E	0.050	1.85	160.0	1280.0	1600.0	-10~+10	-10~+30	-10~+50	10	12	15
100	E	0.025	2.62	160.0	1280.0	1600.0	-10~+10	-10~+30	-10~+50	10	12	15
100	D	0.060	1.62	160.0	1280.0	1600.0	-10~+10	-10~+30	-10~+50	10	12	15
100	D	0.045	1.87	160.0	1280.0	1600.0	-10~+10	-10~+30	-10~+50	10	12	15
150	E	0.050	1.85	240.0	1920.0	2400.0	-10~+10	-10~+30	-10~+50	10	12	15
150	E	0.025	2.62	240.0	1920.0	2400.0	-10~+10	-10~+30	-10~+50	10	12	15
150	D	0.060	1.62	240.0	1920.0	2400.0	-10~+10	-10~+30	-10~+50	10	12	15
150	D	0.045	1.87	240.0	1920.0	2400.0	-10~+10	-10~+30	-10~+50	10	12	15
220	V	0.040	2.29	352.0	2816.0	3520.0	-10~+10	-10~+30	-10~+50	10	12	15
220	V	0.025	2.9	352.0	2816.0	3520.0	-10~+10	-10~+30	-10~+50	10	12	15
220	E	0.050	1.85	352.0	2816.0	3520.0	-10~+10	-10~+30	-10~+50	10	12	15
220	E	0.025	2.62	352.0	2816.0	3520.0	-10~+10	-10~+30	-10~+50	10	12	15
330	W	0.025	2.93	528.0	4224.0	5280.0	-10~+10	-10~+30	-10~+50	10	12	15
330	V	0.025	2.9	528.0	4224.0	5280.0	-10~+10	-10~+30	-10~+50	10	12	15
330	E	0.025	2.62	528.0	4224.0	5280.0	-10~+10	-10~+30	-10~+50	10	12	15
Rated Voltage (Ur)20V (Voltage derating 13V)												
1	B	0.150	0.76	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1	A	0.250	0.56	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	B	0.150	0.76	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	A	0.250	0.56	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	B	0.150	0.76	6.6	52.8	66.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	A	0.250	0.56	6.6	52.8	66.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	C	0.100	1.07	9.4	75.2	94.0	-10~+10	-10~+30	-10~+50	10	12	15
4.7	B	0.150	0.76	9.4	75.2	94.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	C	0.100	1.07	13.6	108.8	136.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	B	0.150	0.76	13.6	108.8	136.0	-10~+10	-10~+30	-10~+50	10	12	15



Cap.(Cr) μF	Case Code	ESR max. 100KHz +25°C Ω	Ripple current AC Max. 100KHz/+85°C A	DCL. max μA			Cap. Change rate %			Max. tgδ(%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
						+25°C			+25°C			+25°C
Rated Voltage (Ur)20V (Voltage derating 13V)												
10	C	0.100	1.07	20.0	160.0	200.0	-10~+10	-10~+30	-10~+50	10	12	15
10	B	0.150	0.76	20.0	160.0	200.0	-10~+10	-10~+30	-10~+50	10	12	15
15	D	0.045	1.87	30.0	240.0	300.0	-10~+10	-10~+30	-10~+50	10	12	15
15	C	0.080	1.2	30.0	240.0	300.0	-10~+10	-10~+30	-10~+50	10	12	15
22	D	0.060	1.62	44.0	352.0	440.0	-10~+10	-10~+30	-10~+50	10	12	15
22	D	0.045	1.87	44.0	352.0	440.0	-10~+10	-10~+30	-10~+50	10	12	15
22	H	0.060	1.47	44.0	352.0	440.0	-10~+10	-10~+30	-10~+50	10	12	15
22	C	0.080	1.2	44.0	352.0	440.0	-10~+10	-10~+30	-10~+50	10	12	15
33	E	0.050	1.85	66.0	528.0	660.0	-10~+10	-10~+30	-10~+50	10	12	15
33	E	0.035	2.22	66.0	528.0	660.0	-10~+10	-10~+30	-10~+50	10	12	15
33	D	0.045	1.87	66.0	528.0	660.0	-10~+10	-10~+30	-10~+50	10	12	15
33	C	0.080	1.2	66.0	528.0	660.0	-10~+10	-10~+30	-10~+50	10	12	15
47	E	0.050	1.85	94.0	752.0	940.0	-10~+10	-10~+30	-10~+50	10	12	15
47	E	0.035	2.22	94.0	752.0	940.0	-10~+10	-10~+30	-10~+50	10	12	15
47	D	0.060	1.62	94.0	752.0	940.0	-10~+10	-10~+30	-10~+50	10	12	15
47	D	0.045	1.87	94.0	752.0	940.0	-10~+10	-10~+30	-10~+50	10	12	15
Rated Voltage (Ur)25V (Voltage derating 17V)												
1	B	0.150	0.76	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
1	A	0.250	0.56	5.0	40.0	50.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	C	0.100	1.07	5.5	44.0	55.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	B	0.150	0.76	5.5	44.0	55.0	-10~+10	-10~+30	-10~+50	10	12	15
2.2	A	0.250	0.56	5.5	44.0	55.0	-10~+10	-10~+30	-10~+50	10	12	15
3.3	C	0.100	1.07	8.3	66.0	82.5	-10~+10	-10~+30	-10~+50	10	12	15
3.3	B	0.150	0.76	8.3	66.0	82.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	C	0.100	1.07	11.8	94.0	117.5	-10~+10	-10~+30	-10~+50	10	12	15
4.7	B	0.150	0.76	11.8	94.0	117.5	-10~+10	-10~+30	-10~+50	10	12	15
6.8	C	0.100	1.07	17.0	136.0	170.0	-10~+10	-10~+30	-10~+50	10	12	15
6.8	B	0.150	0.76	17.0	136.0	170.0	-10~+10	-10~+30	-10~+50	10	12	15
10	D	0.090	1.32	25.0	200.0	250.0	-10~+10	-10~+30	-10~+50	10	12	15
10	D	0.075	1.44	25.0	200.0	250.0	-10~+10	-10~+30	-10~+50	10	12	15
10	C	0.100	1.07	25.0	200.0	250.0	-10~+10	-10~+30	-10~+50	10	12	15
15	D	0.090	1.32	37.5	300.0	375.0	-10~+10	-10~+30	-10~+50	10	12	15
15	D	0.075	1.44	37.5	300.0	375.0	-10~+10	-10~+30	-10~+50	10	12	15
15	C	0.100	1.07	37.5	300.0	375.0	-10~+10	-10~+30	-10~+50	10	12	15
22	E	0.080	1.47	55.0	440.0	550.0	-10~+10	-10~+30	-10~+50	10	12	15
22	E	0.055	1.77	55.0	440.0	550.0	-10~+10	-10~+30	-10~+50	10	12	15
22	D	0.090	1.32	55.0	440.0	550.0	-10~+10	-10~+30	-10~+50	10	12	15
22	D	0.075	1.44	55.0	440.0	550.0	-10~+10	-10~+30	-10~+50	10	12	15
22	C	0.100	1.07	55.0	440.0	550.0	-10~+10	-10~+30	-10~+50	10	12	15



Cap.(Cr) μF	Case Code	ESR max. 100KHz +25°C Ω	Ripple current AC Max. 100KHz/+85°C A	DCL. max μA			Cap. Change rate %			Max. tgδ(%)		
				+25°C	+85°C	+125°C	-55°C	+85°C	+125°C	-55°C	+85°C	+125°C
Rated Voltage (Ur)25V (Voltage derating 17V)												
33	E	0.080	1.47	82.5	660.0	825.0	-10~+10	-10~+30	-10~+50	10	12	15
33	E	0.055	1.77	82.5	660.0	825.0	-10~+10	-10~+30	-10~+50	10	12	15
33	D	0.090	1.32	82.5	660.0	825.0	-10~+10	-10~+30	-10~+50	10	12	15
33	D	0.075	1.44	82.5	660.0	825.0	-10~+10	-10~+30	-10~+50	10	12	15

❖ **How to order**

(GTCAP Part No. **CAK55-476M010DT045**)

CAK55	476	M	010	D	T	045
Type	Capacitance	Tolerance	Rated Voltage/DC	Case Size	Packaging	ESR
Low ESR Chip Tantalum Capacitor (MIL-standard)	476: 47X 10 ⁶ (pF) This is expressed in picofarad. The first two digits are the significant figures. The third is the number of zeros to follow.	J=+/-5%	2.5V=2r5	A:3.2*1.6	T= Tape and reel	025=0.025Ω
		K=+/-10%	4V=004	B:3.5*2.8	B=bulk pack	045=0.045Ω
		M=+/-20%	6.3V=6R3	C:6.0*3.2	100=0.1Ω	
			10V=010	D:7.3*4.3	120=0.12Ω	
			16V=016	E:7.3*4.3	150=0.15Ω	
			20V=020	V:7.3*6.1	200=0.2Ω	
			25V=025	W:7.3*6.1	250=0.25Ω	
	T:11*12.5	350=0.35Ω				