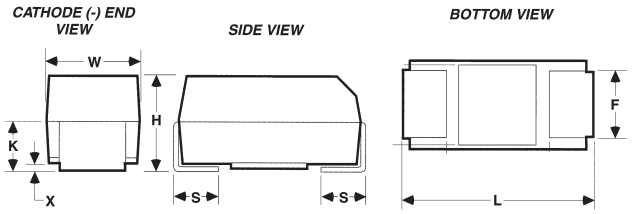
KEMET WET TANTALUM CAPACITORS

Wet tantalum capacitors are usually applied in circuits where the AC component is small compared to the DC component. Typical uses known to KEMET Electronics include blocking, by-passing, decopling, and filtering. They are also used in timing circuits. If two of these capacitors are connected "back-to-back" (i.e., negative-to-negaive or positive-to-positive), the pair may be used in AC applications (as a non-polar device). Operating temperature: –55˚C to +125˚.
APPLICATIONS: Filtering, bypass circuits. Coupling and timing circuits. Low source impedance circuits. High charging current circuits.

DIMENSIONS–MILLIMETERS & (INCHES)

Case Size	L +0.031 (0.79)	D Max	E ±0.25 (6.35)
A	0.453 (11.51)	0.219 (5.56)	1.50 (38.10)
B	0.641 (16.28)	0.312 (7.92)	2.25 (57.15)
D	1.062 (26.97)	0.406 (10.31)	2.25 (57.15)

Cat. No.	Voltage	Capacitance	Max ESR Ω @ +25˚C 120Hz	Max Ripple Current mArms @ 85˚C 120Hz	Net Price
T197A306K006AS	6	30	3.98	820	**$54.49**
T197A566K008AS	8	56	3.32	900	**54.49**
T197A206K010AS	10	20	3.98	820	**54.49**
T197A476K010AS	10	47	3.67	855	**54.49**
T197A156K015AS	15	15	4.42	780	**54.49**
T198A107K015AS	15	100	3.98	900	**61.75**
T197A106K025AS	25	10	5.31	715	**54.49**
T197A226K025AS	25	22	4.22	800	**54.49**
T198A686K025AS	25	68	4.29	850	**61.75**
T198B277K025AS	25	270	2.7	1400	**79.92**
T197A156M030AS	30	15	4.42	780	**54.49**
T198A566K030AS	30	56	5.21	800	**61.75**
T197A106K050AS	50	10	5.31	715	**54.49**
T198A336K050AS	50	33	4.95	700	**61.75**
T197B476K050AS	50	47	3.67	1155	**72.65**
T198B127K050AS	50	120	2.49	1200	**79.92**
T198D337K050AS	50	330	1.53	1900	**127.14**
T197B396K060AS	60	39	4.08	1110	**72.65**
T198B107K060AS	60	100	2.52	1100	**79.92**
T197A685K075AS	75	6.8	6.83	610	**54.49**
T197B156K075AS	75	15	5.31	890	**72.65**
T198A226K075AS	75	22	5.13	600	**61.75**
T197B336K075AS	75	33	4.02	1000	**72.65**
T198B826K075AS	75	82	2.46	1000	**79.92**
T197A255K100AS	100	2.5	10.62	505	**54.49**
T198A106K100AS	100	10	5.97	800	**61.75**
T197A175K125AS	125	1.7	15.61	415	**54.49**
T197A365K125AS	125	3.6	11.05	520	**54.49**
T198B276K125AS	125	27	3.54	1200	**79.92**
T197D566K125AS	125	56	1.54	1800	**112.61**
T198D826K125AS	125	82	2.82	1900	**127.14**



KEMET SURFACE MOUNT TANTALUM CHIP CAPACITORS

KEMET's family of solid tantalum chip capacitors is designed and manufactured with the demanding requirements of surface mount technology in mind. These devices extend the advantages of solid tantalum technology to today's surface mount circuit applications.

T491 SERIES—INDUSTRIAL

The leaading choice in today's surface mount designs. This product meets or exceeds the requirements of EIA standard 535BAAC.

T494 SERIES—LOW ESR, INDUSTRIAL GRADE

The T494 is a low ESR series that is available in all the same case sizes and CV ratings as the popular T491 series. The T494 offers low ESR performance with the economy of an industrial grade device. This series is targeted for output filtering.

T495 SERIES—LOW ESR, SURGE ROBUST

Designed primarily for output filtering in switch-mode power supplies and DC-to-DC converters, the standard CV T495 values are also an excellent choice for battery-to-ground input filter applications. This series offer several important advantages: very low ESR, high ripple current capability, excellent capacitance stability, plus improved ability to withstand high inrush currents.

The KO-CAP also exhibits a benign failure mode, which eliminates the ignition failures that can occur in standard MnO2 Tantalum types. Note also that KO-CAPs may be operated at voltages up to 80% of rated voltage with equivalent or better reliability than standard tantalums operated at 50% of rated voltage. The T520 series captures the best features of multilayer ceramic caps (low ESR and high frequency cap retention), aluminum electrolytics (benign failure mode), and proven solid tantalum technology (volumetric efficiency, surface mount capability, and no wearout mechanism). The KO-CAP can reduce component counts, eliminate through-hole assembly by replacing cumbersome leaded aluminum capacitors, and offer a more cost effective solution to high-cost high-cap ceramic capacitors.

T520 SERIES—KO-CAP POLYMER TANTALUM

The KO-CAP is a tantalum capacitor, with Ta anode and Ta205 dielectric. However, a conductive, organic, polymer replaces the MnO2 as the cathode plate of the capacitor. This results in very low ESR and improved cap retention at high frequency.

T525 SERIES—KO-CAP POLYMER TANTALUM

The T525 has been targeted for power management applications. This series offers all of the same advantages as the T520 KO-CAP including very low ESR, improved capacitance retention at high frequency and a benign failure mode, to go along with 125˚C capability.

DIMENSIONS—MILLIMETERS & (INCHES)

Case Size	L	W	H	X	K	F	S
A	3.2 (.126)	1.6 (.063)	1.6 (.063)	0.05 (.002)	0.9 (.035)	1.2 (.047)	0.8 (.031)
B	3.5 (.138)	2.8 (.110)	1.9 (.075)	0.05 (.002)	1.1 (.043)	2.2 (.087)	0.8 (.031)
C	6.0 (.236)	3.2 (.126)	2.5 (.098)	0.10 (.004)	1.4 (.055)	2.2 (.087)	1.3 (.051)
D	7.3 (.287)	4.3 (.169)	2.8 (.110)	0.10 (.004)	1.5 (.059)	2.4 (.094)	1.3 (.051)
X	7.3 (.287)	4.3 (.169)	4.0 (.157)	0.10 (.004)	2.3 (.091)	2.4 (.094)	1.3 (.051)

Cat. No.	WV (DC)	Cap µF	EIA Case Size	ESR (Ω) @ 25˚C 100 kHz Max.	Net Price*
T491A106K006AT	6.3	10	A	4.00	**$121.09**
T491A226K006AT	6.3	22	A	4.00	**142.28**
T491B226K006AT	6.3	22	B	3.50	**178.60**
T491D686K006AT	6.3	68	D	0.80	**392.93**
T491B107K006AT	6.3	100	B	3.50	**590.30**
T491C107K006AT	6.3	100	C	1.20	**414.42**
T491C227K006AT	6.3	220	C	1.20	**1210.87**
T491D227K006AT	6.3	220	D	0.70	**606.04**
T491A475K010AT	10	4.7	A	6.00	**115.64**
T491B475K010AT	10	4.7	B	3.50	**170.43**
T491A106K010AT	10	10	A	4.00	**132.29**
T491B106K010AT	10	10	B	3.50	**170.43**
T491A226K010AT	10	22	A	6.00	**302.72**
T491B226K010AT	10	22	B	3.00	**247.02**
T491C226K010AT	10	22	C	1.80	**237.94**
T491B336K010AT	10	33	B	3.50	**323.61**
T491B476K010AT	10	47	B	1.00	**590.30**
T491C476K010AT	10	47	C	1.20	**314.52**
T491D107K010AT	10	100	D	0.70	**472.85**
T491X227K010AT	10	220	X	0.50	**1341.95**
T491A105K016AT	16	1.0	A	10.00	**115.64**
T491A225K016AT	16	2.2	A	6.00	**115.64**
T491A335K016AT	16	3.3	A	6.00	**115.64**
T491B335K016AT	16	3.3	B	3.50	**170.43**
T491A475K016AT	16	4.7	A	6.00	**121.09**
T491B475K016AT	16	4.7	B	3.50	**170.43**
T491B685K016AT	16	6.8	B	3.50	**170.43**
T491A106K016AT	16	10	A	7.00	**142.28**
T491B106K016AT	16	10	B	3.50	**178.60**
T491C106K016AT	16	10	C	1.80	**237.94**
T491B226K016AT	16	22	B	3.00	**323.61**
T491C226K016AT	16	22	C	1.60	**257.92**
T491C336K016AT	16	33	C	1.20	**314.52**
T491D336K016AT	16	33	D	0.80	**392.93**
T491D476K016AT	16	47	D	0.80	**392.93**
T491D686K016AT	16	68	D	0.70	**472.85**
T491D107K016AT	16	100	D	0.70	**606.04**
T491X107K016AT	16	100	X	0.70	**1098.87**
T491A105K020AT	20	1.0	A	10.00	**115.64**
T491A225K020AT	20	2.2	A	7.00	**115.64**
T491B225K020AT	20	2.2	B	3.50	**170.43**
T491B335K020AT	20	3.3	B	3.50	**247.02**
T491B475K020AT	20	4.7	B	3.50	**170.43**
T491B685K020AT	20	6.8	B	3.50	**178.60**
T491B106K020AT	20	10	B	3.00	**247.02**
T491C106K020AT	20	10	C	1.80	**237.94**
T491C226K020AT	20	22	C	1.20	**314.52**
T491D226K020AT	20	22	D	0.80	**392.93**
T491D336K020AT	20	33	D	0.80	**392.93**
T491D476K020AT	20	47	D	0.70	**392.93**
T491X686K020AT	20	68	X	0.70	**1098.87**
T491X107K020AT	20	100	X	0.50	**115.64**

*Net Price per 1000.

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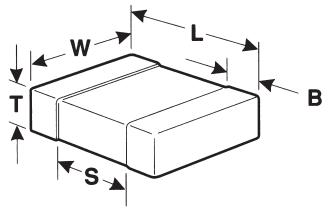
PRICES SUBJECT TO CHANGE WITHOUT NOTICE, APPLICABLE TAXES NOT INCLUDED

Cat. No.	WV (DC)	Cap µF	EIA Case Size	ESR (Ω) @ 25°C 100 kHz Max.	Net Price*
T491A474K025AT	25	0.47	A	14.00	$115.64
T491A474K025AT	25	1.0	A	8.00	115.64
T491B155K025AT	25	1.5	B	5.00	170.43
T491B225K025AT	25	2.2	B	4.50	178.60
T491C475K025AT	25	4.7	C	2.40	237.94
T491C685K025AT	25	6.8	C	1.90	237.94
T491C106K025AT	25	10	C	1.50	257.92
T491D106K025AT	25	10	D	1.00	392.93
T491D226K025AT	25	22	D	0.80	392.93
T491X476K025AT	25	47	X	0.70	1341.95
T491A104K035AT	35	0.10	A	20.00	115.64
T491A224K035AT	35	0.22	A	18.00	115.64
T491A334K035AT	35	0.33	A	15.00	115.64
T491A474K035AT	35	0.47	A	14.00	121.09
T491B474K035AT	35	0.47	B	8.00	170.43
T491B105K035AT	35	1.0	B	5.00	170.43
T491B225K035AT	35	2.2	B	4.00	247.02
T491C225K035AT	35	2.2	C	3.50	237.94
T491C335K035AT	35	3.3	C	2.50	237.94
T491C475K035AT	35	4.7	C	2.50	257.92
T491D475K035AT	35	4.7	D	1.50	392.93
T491D685K035AT	35	6.8	D	1.30	392.93
T491D106K035AT	35	10	D	1.00	392.93
T491X226K035AT	35	22	X	0.70	1098.87
T491X476K035AT	35	47	X	0.60	1588.36
T491C105K050AT	50	1.0	C	5.50	294.54
T491D225K050AT	50	2.2	D	2.50	482.84
T491D335K050AT	50	3.3	D	2.00	628.44
T491D475K050AT	50	4.7	D	1.50	482.84
T491X106K050AT	50	10	X	0.70	1678.27
T494A106K010AT	10	10	A	2.00	132.29
T494B106K010AT	10	10	B	0.80	499.48
T494B335K016AT	16	3.3	B	2.00	499.48
T494B106K016AT	16	10	B	0.80	544.89
T494C106K016AT	16	10	C	0.60	728.04
T494B226K016AT	16	22	B	1.00	817.34
T494D336K016AT	16	33	D	0.25	1318.34
T494B225K020AT	20	2.2	B	1.50	499.48
T494B475K020AT	20	4.7	B	1.00	499.48
T494C106K020AT	20	10	C	0.50	728.04
T494D226K020AT	20	22	D	0.30	1318.34
T494X107K020AT	20	100	X	0.15	5312.70
T494A105K025AT	25	1	A	4.00	393.53
T494B225K025AT	25	2.2	B	1.20	544.89
T494C475K025AT	25	4.7	C	0.60	728.04
T494C106K025AT	25	10	C	0.60	865.77
T494X476K025AT	25	47	X	0.30	5312.70
T494B105K035AT	35	1	B	2.00	499.48
T494C335K035AT	35	3.3	C	0.80	728.04
T494D475K035AT	35	4.7	D	0.70	1318.34
T494D106K035AT	35	10	D	0.40	1318.34
T494D475K035AT	50	4.7	D	0.60	1318.34
T495D107K010ATE100	10	100	D	0.100	2105.40
T495X107K010ATE100	10	100	X	0.100	1399.77
T495X227K010ATE100	10	220	X	0.100	1755.76
T495D107K016ATE125	16	100	D	0.125	905.73
T495X107K016ATE100	16	100	X	0.100	1654.05
T495D476K020ATE150	20	47	D	0.175	847.61
T495X476K020ATE150	20	47	X	0.150	2194.70
T495X686K025ATE200	25	68	X	0.150	1513.59
T495D336K025ATE300	25	33	D	0.300	847.61
T495X336K025ATE175	25	33	X	0.175	1271.42
T495D106K035ATE300	35	10	D	0.300	1695.22
T495X106K035ATE250	35	10	X	0.250	3874.79
T495D226K035ATE300	35	22	D	0.300	847.61
T495X226K035ATE275	35	22	X	0.275	1654.05
T520D477M004ATE018	4	470	D	0.018	1743.66
T520B476M006ATE040	6	47	B	0.04	944.48
T520B107M006ATE040	6	100	B	0.04	1017.13
T520D227M006ATE009	6	220	D	0.009	1888.96
T520D337M006ATE015	6	330	D	0.015	1707.33
T520D107M010ATE055	10	100	D	0.055	1525.70
T520D227M010ATE018	10	220	D	0.018	1743.66
T520D476M016ATE070	10	47	D	0.07	2361.20
T525D227M010ATE025	6	220	D	0.025	3796.08
T525D107M010ATE025	10	100	D	0.025	3796.08
T525D476M016ATE035	16	47	D	0.035	3796.08

*Net Price per 1000.



KEMET MULTILAYER CERAMIC CHIP CAPACITORS

KEMET multilayer ceramic chip capacitors are produced in plants designed specifically for chip capacitor manufacture. The process features a high degree of mechanization as well as precise controls over raw materials and process conditions. Manufacturing is supplemented by extensive technology, Engineering and Quality Assurance programs. KEMET ceramic chip capacitors are offered in the five most popular temperature characteristics. Standard end terminations use a nickel barrier layer and a tin overplate to provide excellent solderability for the customer. **APPLICATION NOTE:** Higher voltage capacitor can be used in a lower voltage application. Better tolerance capacitor can be used. Standard tolerances: C0G=5%, X7R=10%. Z5U=20%.

DIMENSIONS—MILLIMETERS & (INCHES)

Size Code	L Length	W Width	T Thickness Max.	B Bandwidth	S Min. Separation
0603	1.6 (.063)	0.8 (.032)	0.9 (.035)	0.35 (.014)	0.7 (.028)
0805	2.0 (.078)	1.25 (.049)	1.4 (.055)	0.508 (.020)	0.61 (.024)
1206	3.2 (.126)	1.6 (.063)	1.5 (.059)	0.508 (.020)	—
1210	3.2 (.126)	2.5 (.098)	1.7 (.067)	0.508 (.020)	—

0402 CASE SIZE

Cat. No.	Type	WV (DC)	Cap (µF)	Tol.	Net Price*
C0402C100J5GACTU	NPO	50V	10pF	+/–5%	$27.25
C0402C220J5GACTU	NPO	50V	22pF	+/–5%	29.06
C0402C330J5GACTU	NPO	50V	33pF	+/–5%	29.06
C0402C470J5GACTU	NPO	50V	47pF	+/–5%	29.06
C0402C101J3GACTU	NPO	25V	100pF	+/–5%	29.06
C0402C102K5RACTU	X7R	50V	1000pF	+/–10%	30.27
C0402C103K4RACTU	X7R	16V	.01µF	+/–10%	30.27
C0402C103K3RACTU	X7R	25V	.01µF	+/–10%	30.27
C0402C104K8PACTU	X7R	10V	0.1µF	+/–10%	45.41
C0402C104K4RACTU	X7R	16V	0.1µF	+/–10%	45.41
C0402C105K9PACTU	X5R	6.3V	1.0µF	+/–10%	112.01

*Net Price per 1000.

0603 CASE SIZE

Cat. No.	Type	WV (DC)	Cap (µF)	Tol.	Net Price*
C0603C100J5GACTU	NPO	50V	10pF	+/–5%	$39.35
C0603C150J5GACTU	NPO	50V	15pF	+/–5%	39.35
C0603C220J5GACTU	NPO	50V	22pF	+/–5%	39.35
C0603C330J5GACTU	NPO	50V	33pF	+/–5%	127.14
C0603C470J5GACTU	NPO	50V	47pF	+/–5%	39.35
C0603C101J5GACTU	NPO	50V	100pF	+/–5%	39.35
C0603C221J5GACTU	NPO	50V	220pF	+/–5%	53.28
C0603C471J5GACTU	NPO	50V	470pF	+/–5%	53.28
C0603C102K5RACTU	X7R	50V	1000pF	+/–10%	29.06
C0603C222K5RACTU	X7R	50V	2200pF	+/–10%	35.12
C0603C472K5RACTU	X7R	50V	4700pF	+/–10%	157.41
C0603C103K5RACTU	X7R	50V	0.01µF	+/–10%	23.01
C0603C223K5RACTU	X7R	50V	0.022µF	+/–10%	175.58
C0603C473K3RACTU	X7R	25V	0.047µF	+/–10%	59.33
C0603C104K4RACTU	X7R	16V	0.1µF	+/–10%	30.27
C0603C104K3RACTU	X7R	25V	0.1µF	+/–10%	64.78
C0603C224K4RACTU	X7R	16V	0.22µF	+/–10%	254.28
C0603C474K8PACTU	X5R	10V	0.47µF	+/–10%	142.88
C0603C105K8PACTU	X5R	10V	1.0µF	+/–10%	108.98
C0603C225K8PACTU	X5R	6.3V	2.2µF	+/–10%	181.62
C0603C475K9PACTU	X5R	6.3V	4.7µF	+/–10%	332.99
C0603C105K4PACTU	X5R	16V	1.0µF	+/–10%	124.12
C0603C475K9PACTU	Y5V	25V	0.1µF	+/–20%	332.99
C0603C224M3VACTU	Y5V	25V	0.22µF	+/–20%	172.55

*Net Price per 1000.

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0805 CASE SIZE

Cat. No.	Type	WV (DC)	Cap (µF)	Tol.	Net Price*
C0805C100J5GACTU	NPO	50V	10pF	+/–5%	**$53.28**
C0805C150J5GACTU	NPO	50V	15pF	+/–5%	**53.28**
C0805C220J5GACTU	NPO	50V	22pF	+/–5%	**53.28**
C0805C270J5GACTU	NPO	50V	27pF	+/–5%	**53.28**
C0805C330J5GACTU	NPO	50V	33pF	+/–5%	**53.28**
C0805C470J5GACTU	NPO	50V	47pF	+/–5%	**53.28**
C0805C101J5GACTU	NPO	50V	100pF	+/–5%	**53.28**
C0805C101J1GACTU	NPO	100V	100pF	+/–5%	**66.60**
C0805C221J5GACTU	NPO	50V	220pF	+/–5%	**60.54**
C0805C271J5GACTU	NPO	50V	270pF	+/–5%	**145.31**
C0805C331J5GACTU	NPO	50V	330pF	+/–5%	**78.71**
C0805C471J5GACTU	NPO	50V	470pF	+/–5%	**87.79**
C0805C102J5GACTU	NPO	50V	1000pF	+/–5%	**72.65**
C0805C471K5RACTU	X7R	50V	470pF	+/–10%	**41.17**
C0805C102K5RACTU	X7R	50V	1000pF	+/–10%	**27.25**
C0805C102K1RACTU	X7R	100V	1000pF	+/–10%	**57.52**
C0805C222K5RACTU	X7R	50V	2200pF	+/–10%	**29.06**
C0805C332K5RACTU	X7R	50V	3300pF	+/–10%	**151.36**
C0805C472K5RACTU	X7R	50V	4700pF	+/–10%	**29.06**
C0805C103K5RACTU	X7R	50V	0.01µF	+/–10%	**27.25**
C0805C103J5RACTU	X7R	50V	0.01µF	+/–5%	**41.17**
C0805C103K1RACTU	X7R	100V	0.01µF	+/–10%	**60.54**
C0805C223K5RACTU	X7R	50V	0.022µF	+/–10%	**42.38**
C0805C333K5RACTU	X7R	50V	0.033µF	+/–10%	**187.69**
C0805C473K5RACTU	X7R	50V	0.047µF	+/–10%	**51.46**
C0805C104J5RACTU	X7R	50V	0.1µF	+/–5%	**66.60**
C0805C104K5RACTU	X7R	50V	0.1µF	+/–10%	**45.41**
C0805C224K3RACTU	X7R	25V	0.22µF	+/–10%	**105.95**
C0805C474K4RACTU	X7R	16V	0.47µF	+/–10%	**193.74**
C0805C474K3RACTU	X7R	25V	0.47µF	+/–10%	**632.68**
C0805C105K4RACTU	X7R	16V	1µF	+/–10%	**99.90**
C0805C225K8PACTU	X5R	10V	2.2µF	+/–10%	**248.23**
C0805C225K4RACTU	X7R	16V	2.2µF	+/–10%	**272.45**
C0805C475K8PACTU	X5R	10V	4.7µF	+/–10%	**272.45**
C0805C475K4PACTU	X5R	16V	4.7µF	+/–10%	**308.77**
C0805C106K9PACTU	X5R	6.3V	10µF	+/–10%	**484.35**
C0805C106K8PACTU	X5R	6.3V	10µF	+/–10%	**435.89**
C0805C104M3VACTU	Y5V	25V	0.1µF	+/–20%	**43.59**
C0805C105M4VACTU	Y5V	16V	0.1µF	+/–20%	**69.02**
C0805C105M3VACTU	Y5V	25V	1µF	+/–20%	**345.10**
C0805C225Z4VACTU	Y5V	16V	2.2µF	+80/–20%	**395.35**
C0805C104M5UACTU	Z5U	50V	0.1µF	+/–20%	**41.17**

*Net Price per 1000.

1206 CASE SIZE

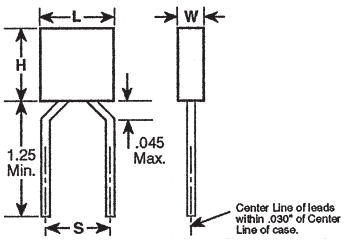
Cat. No.	Type	WV (DC)	Cap (µF)	Tol.	Net Price*
C1206C100J5GACTU	NPO	50V	10pF	+/–5%	**$93.84**
C1206C150J5GACTU	NPO	50V	15pF	+/–5%	**93.84**
C1206C220J5GACTU	NPO	50V	22pF	+/–5%	**93.84**
C1206C270J5GACTU	NPO	50V	27pF	+/–5%	**93.84**
C1206C330J5GACTU	NPO	50V	33pF	+/–5%	**93.84**
C1206C470J5GACTU	NPO	50V	47pF	+/–5%	**93.84**
C1206C101J5GACTU	NPO	50V	100pF	+/–5%	**93.84**
C1206C221J5GACTU	NPO	50V	220pF	+/–5%	**121.09**
C1206C331J5GACTU	NPO	50V	330pF	+/–5%	**121.09**
C1206C471J5GACTU	NPO	50V	470pF	+/–5%	**121.09**
C1206C102J5GACTU	NPO	50V	1000pF	+/–5%	**181.63**
C1206C102K5RACTU	X7R	50V	1000pF	+/–10%	**72.65**
C1206C102K1RACTU	X7R	100V	1000pF	+/–10%	**102.92**
C1206C222K5RACTU	X7R	50V	2200pF	+/–10%	**93.84**
C1206C472K5RACTU	X7R	50V	4700pF	+/–10%	**93.84**
C1206C103K5RACTU	X7R	50V	.01µF	+/–10%	**66.60**
C1206C103K1RACTU	X7R	100V	0.01µF	+/–10%	**72.65**
C1206C223K5RACTU	X7R	50V	.22µF	+/–10%	**90.82**
C1206C333K5RACTU	X7R	50V	.33µF	+/–10%	**205.85**
C1206C473K5RACTU	X7R	50V	.047µF	+/–10%	**90.82**
C1206C104J5RACTU	X7R	50V	0.1µF	+/–5%	**139.25**
C1206C104K5RACTU	X7R	50V	0.1µF	+/–10%	**66.60**
C1206C104K1RACTU	X7R	100V	0.1µF	+/–10%	**130.17**
C1206C224K5RACTU	X7R	50V	0.22µF	+/–10%	**151.36**
C1206C474K5RACTU	X7R	50V	0.47µF	+/–10%	**605.44**
C1206C105K5RACTU	X7R	16V	1µF	+/–10%	**726.52**
C1206C105K3RACTU	X7R	25V	1µF	+/–10%	**157.41**
C1206C475K4RACTU	X7R	16V	4.7µF	+/–10%	**475.27**
C1206C106K4RACTU	X7R	16V	10µF	+/–10%	**200.00**
C1206C225K4PACTU	X5R	16V	2.2µF	+/–10%	**484.35**
C1206C475K4PACTU	X5R	16V	4.7µF	+/–10%	**475.27**
C1206C106K9PACTU	X5R	6.3V	10µF	+/–10%	**393.53**
C1206C106K8PACTU	X5R	10V	10µF	+/–10%	**544.89**
C1206C226K9PACTU	X5R	6.3V	22µF	+/–10%	**968.70**
C1206C226K8PACTU	X5R	10V	22µF	+/–10%	**200.00**
C1206C225M4VACTU	Y5V	16V	2.2µF	+/–20%	**151.36**
C1206C104M5UACTU	Z5U	50V	0.1µF	+/–20%	**66.60**

*Net Price per 1000.

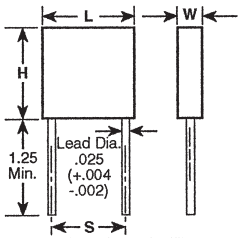
1210 CASE SIZE

Cat. No.	Type	WV (DC)	Cap (µF)	Tol.	Net Price*
C1210C104K1RACTU	X7R	100V	0.1µF	+/–10%	**$224.01**
C1210C224K5RACTU	X7R	50V	0.22µF	+/–10%	**242.17**

*Net Price per 1000.



C052



C062

KEMET TYPE CK05 & CK06 CERAMIC MOULDED CAPACITORS

DIMENSIONS—INCHES & (MILLIMETERS)

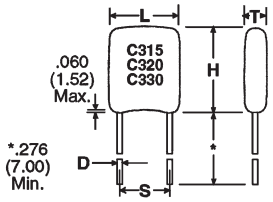
Case Size	Military Equivalent Styles	H Height	L Length	W Width	S Lead Spacing
C052	CK05	.190±.010 (4.83±.25)	.190±.010 (4.83±.25)	.090±.010 (2.29±.25)	.200±.015 (5.08±.38)
C062	CK06	.290±.010 (7.37±.25)	.290±.010 (7.37±.25)	.090±.010 (2.29±.25)	.200±.015 (5.08±.38)

CAP CODES AND VALUES FOR CK05 AND CK06 SERIES

Cap Code	Cap Value	Cap Code	Cap Value	Cap Code	Cap Value	Cap Code	Cap Value	Cap Code	
100	10pF	151	150pF	152	1500pF	123	0.012µF	104	0.1µF
120	12pF	221	220pF	182	1800pF	153	0.015µF	124	0.12µF
150	15pF	271	270pF	222	2200pF	183	0.018µF	184	0.18µF
180	18pF	331	330pF	272	2700pF	223	0.022µf	224	0.22µF
220	22pF	391	390pF	332	3300pF	273	0.027µF	274	0.27µF
270	27pF	471	470pF	392	3900pF	333	0.033µF	334	0.33µF
330	33pF	561	560pF	472	4700pF	393	0.039µF	394	0.39µF
390	39pF	681	680pF	562	5600pF	473	0.047µF	474	0.47µF
470	47pF	821	820pF	682	6800pF	563	0.056µF	564	0.56µF
680	68pF	102	1000pF	822	8200pF	683	0.068µF	824	0.82µF
101	100pF	122	1200pF	103	0.01µF	823	0.082µF	105	1µF

Cat. No.	Military Part No.	Range	Voltage	Net Price*
MIL-C 11015/18 TYPE CK05BX. TOLERANCE 10%				
C052KXXXK2X5CA	CK05BX**XXX**K	10pF–1000pF	200	**$286.98**
C052KXXXK1X5CA	CK05BX**XXX**K	1200pF–5600pF	100	**286.98**
C052KXXXK1X5CA	CK05BX**XXX**K	6800pF–.01µF	100	**290.61**
C052KXXXK5X5CA	CK05BX**XXX**K	.018µF–.1µF	50	**381.42**
MIL-C 11015/18 TYPE CK06BX. TOLERANCE 10%				
C062KXXXK2X5CA	CK06BX**XXX**K	2700pF–.01µF	200	**308.77**
C062KXXXK1X5CA	CK06BX**XXX**K	.012µF–.027µF	100	**381.42**
C062KXXXK1X5CA	CK06BX**XXX**K	.033µF–.1µF	100	**417.75**
C062KXXXK5X5CA	CK06BX**XXX**K	.12µF–.15µF	50	**1053.46**
C062KXXXK5X5CA	CK06BX**XXX**K	.18µF–.22µF	50	**1235.09**
C062KXXXK5X5CA	CK06BX**XXX**K	.27µF–.33µF	50	**1598.35**
C062KXXXK5X5CA	CK06BX**XXX**K	.33µF–.47µF	50	**2179.57**
C062KXXXK5X5CA	CK06BX**XXX**K	.56µF–.68µF	50	**2724.46**
C062KXXXK5X5CA	CK06BX**XXX**K	.82µF–1.0µF	50	**2542.83**

NOTE: Replace "XXX" in Cat. No. with capacitance code above.
*Net Price per 1000.



KEMET CERAMIC "GOLDEN MAX" CONFORMAL COATED CERAMIC
RADIAL CAPACITORS

Multilayer ceramic capacitors are available in a variety of physical sizes and configurations, including leaded devices and surface mounted chips. It is called a chip and consists of formulated dielectric materials which have been cast into thin layers, interspersed with metal electrodes alternately exposed on opposite edges of the laminated structure. The entire structure is fired at high temperature to produce a monolithic block, which provides high capacitance values in a

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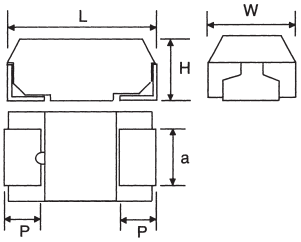
PARTS INDICATED WITH A LEAF ◊ ARE CONSIDERED RoHS JULY 2006 COMPLIANT BASED ON THE MANUFACTURER'S CONFIRMATION AT THE TIME OF PUBLISHING.
PRICES SUBJECT TO CHANGE WITHOUT NOTICE, APPLICABLE TAXES NOT INCLUDED

Cat. No.	Cap (µF)	D×L×F mm	Max. Ripple	Max ESR Ohms	Net Price
25 VDC					
NRSA220M25V5X11F	22	5x11x2.0	70	10.6	**.04**
NRSA330M25V5X11F	33	5x11x2.0	85	7.04	**.04**
NRSA470M25V5X11F	47	5x11x2.0	100	4.94	**.04**
NRSA101M25V6.3X11F	100	6.3x11x2.5	170	2.33	**.06**
NRSA221M25V8X11.5F	220	8x11.5x3.5	270	1.06	**.11**
NRSA331M25V10X12.5F	330	10x12.5x5.0	400	0.704	**.14**
NRSA471M25V10X16F	470	10x16x5.0	510	0.494	**.19**
NRSA102M25V12.5X20F	1000	12.5x20x5.0	900	0.233	**.41**
NRSA222M25V16X25F	2200	16x25x7.5	1300	0.121	**.78**
35 VDC					
NRSA100M35V5X11F	10	5x11x2.0	50	19.9	**.04**
NRSA220M35V5X11F	22	5x11x2.0	75	9.05	**.04**
NRSA330M35V5X11F	33	5x11x2.0	95	6.04	**.04**
NRSA470M35V6.3X11F	47	6.3x11x2.5	120	4.24	**.06**
NRSA101M35V8X11.5F	100	8x11.5x3.5	210	1.99	**.11**
NRSA221M35V10X12.5F	220	10x12.5x5.0	370	0.905	**.14**
NRSA331M35V10X16F	330	10x16x5.0	470	0.604	**.19**
NRSA471M35V10X20F	470	10x20x5.0	600	0.424	**.24**
NRSA102M35V12.5X25F	1000	12.5x25x5.0	960	0.199	**.51**
50 VDC					
NRSA100M50V5X11F	10	5x11x2.0	55	16.6	**.04**
NRSA220M50V5X11F	22	5x11x2.0	85	7.54	**.04**
NRSA330M50V6.3X11F	33	6.3x11.x2.5	110	5.03	**.06**
NRSA470M50V6.3X11F	47	6.3x11x2.5	140	3.53	**.06**
NRSA101M50V8X11.5F	100	8x11.5x3.5	230	1.66	**.11**
NRSA221M50V10x16F	220	10x16x5.0	420	0.754	**.19**
NRSA331M50V10X20F	330	10x20x5.0	580	0.503	**.24**
NRSA471M50V12.5X20F	470	12.5x20x5.0	730	0.353	**.41**
NRSA102M50V16X25F	1000	16x25x7.5	1100	0.166	**.78**
10 VDC					
NRSZ221M10V6.3x11F	220	6.3x11x2.5	300	0.22	**.15**
16 VDC					
NRSZ101M16V6.3X11F	100	6.3x11x2.5	280	0.32	**.15**
NRSZ221M16X8X11.5F	220	8x11.5x3.5	560	0.11	**.22**
NRSZ471M16V8X20F	470	8x20x3.5	800	0.069	**.37**
NRSZ102M16V10X22F	1000	10x22x5.0	1450	0.039	**.51**
NRSZ222M16V12.5X25F	2200	12.5x25x5.0	1700	0.037	**.90**
25 VDC					
NRSZ221M25V8X15F	220	8x15x3.5	730	0.085	**.33**
NRSZ221M25V10X12.5F	220	10x12.5x5.0	630	0.12	**.30**
NRSZ331M25V8X20F	330	8x20x3.5	800	0.069	**.37**
NRSZ471M25V10X16F	470	10x16x5.0	1010	0.065	**.41**
NRSZ102M25V12.5X20F	1000	12.5x20x5.0	1600	0.038	**.70**
35 VDC					
NRSZ470M35V6.3X11F	47	6.3x11x2.5	280	0.322	**.20**
NRSZ101M35V8X11.5F	100	8x11.5x3.5	560	0.11	**.21**
NRSZ221M35V8X20F	220	8x20x3.5	800	0.069	**.48**
NRSZ221M35V10X16F	220	10x16x5.0	950	0.085	**.41**
NRSZ331M35V10X20F	330	10x20x5.0	1250	0.044	**.49**
NRSZ471M35V10X20F	470	10x20x5.0	1250	0.054	**.47**
NRSZ102M35V12.5X25F	1000	12.5x25x5.0	1800	0.029	**.94**
NRSZ332M35V18X35.5F	3300	18x35.5x7.5	2700	0.022	**2.06**
50 VDC					
NRSZ100M50V5X11F	10	5x11x2.0	110	1.7	**.11**
NRSZ470M50V6.3X11F	47	6.3x11x2.5	220	0.43	**.16**
NRSZ101M50V8X15F	100	8x15x3.5	500	0.18	**.40**
NRSZ221M50V10X20F	220	10x20x5.0	850	0.1	**.45**
NRSZ331M50V10X22F	330	10x22x5.0	1000	0.072	**.52**
NRSZ471M50V12.5X20F	470	12.5x20x5.0	1200	0.059	**.82**
NRSZ102M50V16X25F	1000	16x25x7.5	1750	0.039	**1.42**



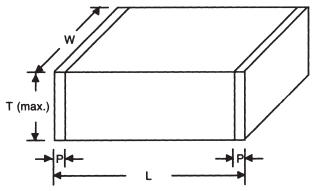
NIC COMPONENTS MOLDED TANTALUM CHIP CAPACITORS

FEATURES: Molded construction for high soldering heat resistance. Both flow and reflow sodlering applications. **SPECIFICATIONS: Operating temperature range:** –55˚C to +125˚C. **Leakage current @ 25˚C after 5 minutes at rated voltage:** Not more than 0.01CV or 0.5µA, whichever is greater. **Load life:** 2000 hours @ +85˚C.

DIMENSIONS-MILLIMETERS

Case Code	Metric Code	L	W	H	P	A
A	3216	3.2±0.2	1.6±0.2	1.6±0.2	0.8±0.3	1.2±0.1
B	3528	3.5±0.5	2.8±0.2	1.9±0.2	0.8±0.3	2.2±0.1
C	6032	6.0±0.3	3.2±0.3	2.6±0.3	1.3±0.3	2.2±0.1
D	7343	7.3±0.2	4.3±0.2	2.9±0.3	1.3±0.3	2.4±0.1

Cat. No.	EIA Case Size	Cap (µF)	Tol	ESR (Ω) @ 25˚C 100kHz Max.	Net Price
6.3 VDC					
NTC-T106K6.3TRAF	A	10µF	±10%	4.0	**$.18**
10 VDC					
NTC-T475K10TRAF	A	4.7µF	±10%	5.0	**.18**
NTC-T106K10TRAF	A	10µF	±10%	3.2	**.18**
NTC-T106K10TRBF	B	10µF	±10%	2.5	**.26**
NTC-T226K10TRBF	B	22µF	±10%	2.4	**.33**
NTC-T107K10TRDF	D	100µF	±10%	0.7	**.80**
16 VDC					
NTC-T105K16TRAF	A	1µF	±10%	10.0	**.18**
NTC-T335K16TRAF	A	3.3µF	±10%	5.0	**.15**
NTC-T475K16TRAF	A	4.7µF	±10%	5.0	**.18**
NTC-T475K16TRBF	B	4.7µF	±10%	3.0	**.26**
NTC-T106K16TRBF	B	10µF	±10%	2.4	**.26**
NTC-T106K16TRCF	C	10µF	±10%	1.8	**.52**
NTC-T226K16TRBF	B	22µF	±10%	2.5	**.28**
NTC-T226K16TRCF	C	22µF	±10%	1.6	**.52**
NTC-T476K16TRDF	D	47µF	±10%	0.8	**.82**
20 VDC					
NTC-T225K20TRAF	A	2.2µF	±10%	6.0	**.18**
NTC-T475K20TRBF	B	4.7µF	±10%	3.0	**.26**
NTC-T226K20TRDF	D	22µF	±10%	0.8	**.80**
25 VDC					
NTC-T105K25TRAF	A	1µF	±10%	8.0	**.18**
NTC-T335K25TRBF	B	3.3µF	±10%	3.5	**.30**
NTC-T106K25TRCF	C	10µF	±10%	1.8	**.52**
NTC-T226K25TRDF	D	22µF	±10%	0.8	**.87**
35 VDC					
NTC-T104K35TRAF	A	0.1µF	±10%	18.0	**.18**
NTC-T224K35TRAF	A	0.22µF	±10%	18.0	**.18**
NTC-T474K35TRAF	A	0.47µF	±10%	12.0	**.18**
NTC-T474K35TRBF	B	0.47µF	±10%	8.0	**.22**
NTC-T105K35TRBF	B	1µF	±10%	4.8	**.26**
NTC-T106K35TRDF	D	10µF	±10%	1.0	**.80**



NIC COMPONENTS CERAMIC CHIP CAPACITORS

FEATURES: Nickel barrier terminations and excellent strength; unmarked.

EIA Code	Metric Code	L	W	T	P
0402	1005	1.0±0.05	0.5±0.05	0.6	.20±0.1
0603	1608	1.6±0.15	0.8±0.15	1.0	.12-.51
0805	2012	2.0±0.2	1.25±0.2	1.3	.25-.71
1206	3216	3.2±0.2	1.6±0.2	1.8	.25-.71

Cat. No.	Case Size	Type	(µF)	Tol	Net Price*
16 VDC					
NMC0402X7R103K16TRPF	0402	X7R	.01µF	±10%	**$24.94**
NMC0402Y5V104Z16TRPF	0402	Y5V	.1µF	+80-20%	**24.94**
50 VDC					
NMC0402NPO101J50TRPF	0402	NPO	100pF	±5%	**29.93**
NMC0402X7R102K50TRPF	0402	X7R	1000pF	±10%	**19.95**
16 VDC					
NMC0603X7R473K16TRPF	0603	X7R	.047µF	±10%	**17.46**
NMC0603X7R104K16TRPF	0603	X7R	.1µF	±10%	**13.97**
NMC0603Y5V334Z16TRPF	0603	Y5V	.33µF	+80-20%	**21.82**
25 VDC					
NMC0603Y5V104Z25TRPF	0603	Y5V	.1µF	+80-20%	**8.73**

*Net Price per 1000.

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