THE DATASHEET OF

T495X227K016ZTE100

Low ESR MnO_2 Tantalum Surface Mount Capacitors

T495 Surge Robust Low ESR MnO_2 Series

The Capacitance Company
KEMET CHARGED.

Overview

The low ESR, surge-robust T495 Series is designed for demanding applications that require high surge current and high ripple current capability. This series builds upon the proven capabilities of our industrial grade tantalum chip capacitors to offer several advantages such as low ESR, high ripple current capability, excellent capacitance stability, and improved resistance to high in-rush currents. These benefits are achieved though a combination of proprietary design, materials, and process parameters as well as high-stress, low impedance electrical conditioning performed prior to screening.

Benefits

- Meets or exceeds EIA standard 535BAAC
- Taped and reeled per EIA 481-D
- High surge current capability
- Optional gold-plated terminations
- High ripple current capability
- 100% surge current test on C, D, E, U, V, X sizes
- 100% steady-state accelerated aging
- Capacitance values of 0.1µF to 1000µF
- Tolerances of ±10% and ±20%
- Voltage rating of 2.5–50 VDC
- Extended range values
- Available tested to DSCC 95158
- RoHS compliance and lead-free terminations
- Operating temperature range of -55˚C to +125˚C

Applications

Typical applications include decoupling and filtering in industrial and automotive end applications, such as DC/DC converters, portable electronics, telecommunications, and control units requiring high ripple current capability.

Environmental Compliance

RoHS Compliant (6/6)* according to Directive 2002/95/EC

**When ordered with 100% Sn Solder*

RoHS Compliant

SPICE

For a detailed analysis of specific part numbers, please visit kemet.com for a free download of KEMET's SPICE software. The KEMET SPICE program is freeware intended to aid design engineers in analyzing the performance of these capacitors over frequency, temperature, ripple, and DC bias conditions.

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Ordering Information

T	495	X	107	M	010	A	T	E045	
Capacitor Class	Series	Case Size	Capacitance Code (pF)	Capacitance Tolerance	Voltage	Failure Rate/ Design	Lead Material	ESR Code	Packaging (C-Spec)
T = Tantalum	Surge Robust Low ESR	A = 3216-18 B = 3528-21 C = 6032-28 D = 7343-31 E = 7260-38 T = 3528-12 V = 7343-20 X = 7343-43	First two digits represent significant figures. Third digit specifies number of zeros.	K = ±10% M = ±20%	2R5 = 2.5V 004 = 4V 006 = 6.3V 010 = 10V 016 = 16V 020 = 20V 025 = 25V 035 = 35V 050 = 50V	A = N/A Z = N/A	T = 100% Matte Tin (Sn) Plated H = Standard Solder Coated (SnPb 5% Pb minimum) G = Gold Plated (A, B, C, D, X only)	E = ESR Last three digits specify ESR in m**Ω**. (045 = 45m**Ω**)	Blank = 7" Reel 7280 = 13" Reel

Performance Characteristics

Item	Performance Characteristics
Operating Temperature	-55°C to 125°C
Rated Capacitance Range	0.47µF–1,000µF @ 120 Hz/25°C
Capacitance Tolerance	K Tolerance (10%), M Tolerance (20%)
Rated Voltage Range	2.5V–50V
DF (120Hz)	Refer to Part Number Electrical Specification Table
ESR (100kHz)	Refer to Part Number Electrical Specification Table
Leakage Current	≤ 0.01CV (µA) at Rated Voltage after 5 minutes

Qualification

Test	Condition		Characteristics			
Endurance	85°C @ Rated Voltage, 2,000 Hours. 125°C @ 2/3 Rated Voltage, 2,000 Hours.		ΔC/C	Within ±10% of initial value		
			DF	Within initial limits		
			DCL	Within 1.25 x initial limit		
			ESR	Within initial limits		
Storage Life	125°C @ 0 Volts, 2,000 Hours.		ΔC/C	Within ±10% of initial value		
			DF	Within initial limits		
			DCL	Within 1.25 x initial limit		
			ESR	Within initial limits		
Thermal Shock	MIL-STD-202, Method 107, Condition B, mounted, -55C° to 125° C, 1,000 cycles.		ΔC/C	Within ±5% of initial value		
			DF	Within initial limits		
			DCL	Within 1.25 x initial limit		
			ESR	Within initial limits		
Temperature Stability	Extreme temperature exposure at a succession of continuous steps at +25°C, -55°C, +25°C, +85°C, +125°C, +25°C.		+25°C	-55°C	+85°C	+125°C
		ΔC/C	IL*	±10%	±10%	±20%
		DF	IL	IL	1.5 x IL	1.5 x IL
		DCL	IL	n/a	10 x IL	12 x IL
Surge Voltage	25°C and 85°C, 1.32 x Rated Voltage 1,000 cycles (125°C, 1.2 x Rated Voltage).		ΔC/C	Within ±5% of initial value		
			DF	Within initial limits		
			DCL	Within initial limits		
			ESR	Within initial limits		
Mechanical Shock/Vibration	MIL-STD-202, Meth. 213, Cond. I, 100G Peak. MIL-STD-202, Meth. 204, Cond. D, 10Hz to 2000Hz, 20G Peak.		ΔC/C	Within ±10% of initial value		
			DF	Within initial limits		
			DCL	Within initial limits		

**IL = Initial limit*

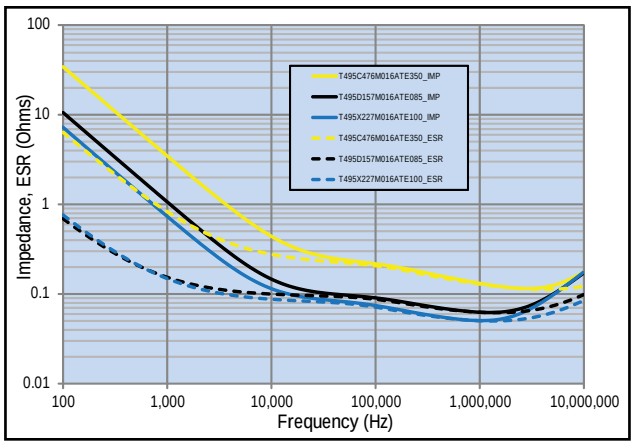
Certification

KEMET's Internal Qualification Plan for this Tantalum series of capacitors follows AEC-Q200 guidelines. Standard catalog part types ordered without a specific automotive designator, i.e., suffix AUTO or four digit customer specific designator (C SPEC), are not considered KEMET Automotive Grade Tantalum capacitors.

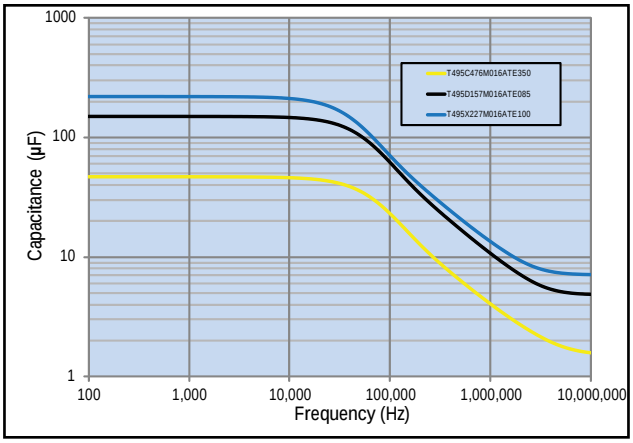
DSCC Drawing 95158

Electrical Characteristics

ESR vs. Frequency

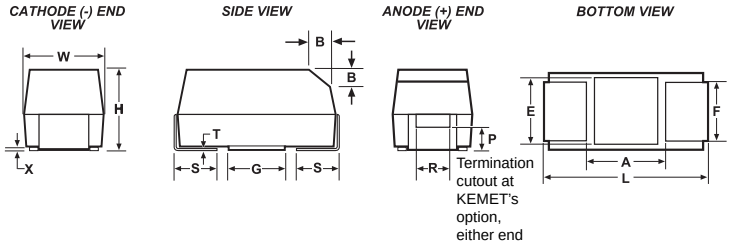


Capacitance vs. Frequency



Dimensions – Millimeters (Inches)

Metric will govern



Case Size		Component												
KEMET	EIA	L*	W*	H*	F* ±0.1 ±(.004)	S* ±0.3 ±(.012)	B* ±0.15 (Ref) ±.006	X (Ref)	P (Ref)	R (Ref)	T (Ref)	A (Min)	G (Ref)	E (Ref)
A	3216-18	3.2 ± 0.2 (.126 ± .008)	1.6 ± 0.2 (.063 ± .008)	1.6 ± 0.2 (.063 ± .008)	1.2 (.047)	0.8 (.031)	0.4 (.016)	0.10 ± 0.10 (.004 ± .004)	0.4 (.016)	0.4 (.016)	0.13 (.005)	1.4 (.055)	1.1 (.043)	1.3 (.051)
B	3528-21	3.5 ± 02 (138 ± .008)	2.8 ± 0.2 (.110 ± .008)	1.9 ± 0.2 (.075 ± .008)	2.2 (.087)	0.8 (.031)	0.4 (.016)	0.10 ± 0.10 (.004 ± .004)	0.5 (.020)	1.0 (.039)	0.13 (.005)	2.1 (.083)	1.8 (.071)	2.2 (.087)
C	6032-28	6.0 ± 0.3 (.236 ± .03)	3.2 ± 0.3 (.126 ± .012)	2.5 ± 0.3 (.098 ± .012)	2.2 (.087)	1.3 (.051)	0.5 (.020)	0.10 ± 0.10 (.004 ± .004)	0.9 (.035)	1.0 (.039)	0.13 (.005)	3.1 ((.122)	2.8 (.110)	2.4 (.094)
D	7343-31	7.3 ± 0.3 (287 ± .012)	4.3 ± 0.3 (.169 ± .012)	2.8 ± 0.3 (.110 ± .012)	2.4 (.094)	1.3 (.051)	0.5 (.020)	0.10 ± 0.10 (.004 ± .004)	0.9 (.035)	1.0 (.039)	0.13 (.005)	3.8 (.150)	3.5 (.138)	3.5 (.138)
X	7343-43	7.3 ± 0.3 (.287 ± .012)	4.3 ± 0.3 (.169 ± .012)	4.0 ± 0.3 (.157 ± .012)	2.4 (.094)	1.3 (.051)	0.5 (.020)	0.10 ± 0.10 (.004 ± .004)	1.7 (.067)	1.0 (.039)	0.13 (.005)	3.8 (.150)	3.5 (.138)	3.5 (.138)
E	7260-38	7.3 ± 0.3 (.287 ± .012)	6.0± 0.3 (.236 ± .012)	3.6 ± 0.2 (.142 ± .008)	4.1 (.161)	1.3 (.051)	0.5 (.020)	0.10 ± 0.10 (.004 ± .004)	0.9 (.035)	1.0 (.039)	0.13 (.005)	0.13 (.005)	3.5 (.138)	3.5 (.138)
T	3528-12	3.5 ± 0.2 (.138 ± .008)	2.8 ± 0.2 (.110 ± .008)	1.2 (.047)	2.2 (.087)	0.8 (.031)	N/A	0.05 (.002)	N/A	N/A	0.13 (.005)	2.1 (.083)	1.8 (.071)	2.2 (.087)
V	7343-20	7.3 ± 0.3 (287 ± .012)	4.3 ± 0.3 (.169 ± .012)	2.0 (.079)	2.4 (.094)	1.3 (.051)	N/A	0.05 (.002)	N/A	N/A	0.13 (.005)	3.8 (.150)	3.5 (.138)	3.5 (.138)

Notes: (Ref) – Dimensions provided for reference only. No dimensions provided for B, P or R because low profile cases do not have a bevel or a notch.

** MIL-C-55365/8 specified dimensions*

Table 1 – Ratings & Part Number Reference

Rated Voltage	Rated Cap	Case Code/ Case Size	KEMET Part Number	DC Leakage	DF	ESR	Maximum Allowable Ripple Current			Moisture Sensitivity
VDC	µF	KEMET/EIA	(See below for part options)	µAmps +20°C max/5min	% @ +20°C 120 Hz max	Ω @ 20°C 100 kHz max	(mArms) 100 Khz 25°C	(mArms) 100kHz +85°C	(mArms) 100kHz +125°C	Reflow Temp≤260°C
2.5	220	D/7343-31	T495D227(1)2R5A(2)E045	5.5	8.0	45	1826	1643	730	1
2.5	470	D/7343-31	T495D477(1)2R5A(2)E035	11.8	8.0	35	2070	1863	828	1
2.5	1000	X/7343-43	T495X108(1)2R5A(2)E030	25.0	15.0	30	2345	2111	938	1
2.5	1000	X/7343-43	T495X108(1)2R5A(2)E040	25.0	15.0	40	2031	1828	812	1
4	68	V/7343-20	T495V686(1)004A(2)E150	2.7	6.0	150	913	822	365	1
4	100	B/3528-21	T495B107(1)004A(2)E500	4.0	8.0	500	412	371	165	1
4	150	B/3528-21	T495B157(M)004A(2)E900	6.0	12.0	900	307	276	123	1
4	150	C/6032-28	T495C157(1)004A(2)E070	6.0	12.0	70	1254	1129	502	1
4	150	C/6032-28	T495C157(1)004A(2)E250	6.0	8.0	250	663	597	265	1
4	220	D/7343-31	T495D227(1)004A(2)E040	8.8	8.0	40	1936	1742	774	1
4	220	D/7343-31	T495D227(1)004A(2)E050	8.8	8.0	50	1732	1559	693	1
4	220	D/7343-31	T495D227(1)004A(2)E100	8.8	8.0	100	1225	1103	490	1
4	330	C/6032-28	T495C337(1)004A(2)E300	13.2	10.0	300	606	545	242	1
4	330	C/6032-28	T495C337(1)004A(2)E700	13.2	12.0	700	396	356	158	1
4	330	D/7343-31	T495D337(1)004A(2)E030	13.2	8.0	30	2236	2012	894	1
4	330	D/7343-31	T495D337(1)004A(2)E045	13.2	8.0	45	1826	1643	730	1
4	470	D/7343-31	T495D477(1)004A(2)E045	18.8	12.0	45	1826	1643	730	1
4	470	D/7343-31	T495D477(1)004A(2)E100	18.8	12.0	100	1225	1103	490	1
4	470	X/7343-43	T495X477(1)004A(2)E030	18.8	8.0	30	2345	2111	938	1
4	470	X/7343-43	T495X477(1)004A(2)E045	18.8	8.0	45	1915	1724	766	1
4	470	X/7343-43	T495X477(1)004A(2)E100	18.8	8.0	100	1285	1157	514	1
4	1000	X/7343-43	T495X108(1)004A(2)E030	40.0	12.0	30	2345	2111	938	1
4	1000	X/7343-43	T495X108(1)004A(2)E040	40.0	12.0	40	2031	1828	812	1
4	1000	X/7343-43	T495X108(1)004A(2)E060	40.0	12.0	60	1658	1492	663	1
4	1000	X/7343-43	T495X108(1)004A(2)E070	40.0	12.0	70	1535	1382	614	1
4	1000	X/7343-43	T495X108(1)004A(2)E090	40.0	12.0	90	1354	1219	542	1
4	1000	E/7260-38	T495E108(1)004A(2)E035	40.0	15.0	35	2390	2151	956	1
4	1000	E/7260-38	T495E108(1)004A(2)E050	40.0	15.0	50	2000	1800	800	1
6.3	6.8	A/3216-18	T495A685K006ATE2K0	0.5	6.0	2000	194	175	78	1
6.3	10	A/3216-18	T495A106(1)006A(2)E1K0	0.6	6.0	1000	274	247	110	1
6.3	10	A/3216-18	T495A106(1)006A(2)E1K5	0.6	6.0	1500	224	202	90	1
6.3	10	A/3216-18	T495A106(1)006A(2)E2K0	0.6	6.0	2000	194	175	78	1
6.3	47	B/3528-21	T495B476(1)006A(2)E450	3.0	6.0	450	435	392	174	1
6.3	47	C/6032-28	T495C476(1)006A(2)E250	3.0	6.0	250	663	597	265	1
6.3	47	V/7343-20	T495V476(1)006A(2)E150	3.0	6.0	150	913	822	365	1
6.3	68	D/7343-31	T495D686(1)006A(2)E175	4.3	4.0	175	926	833	370	1
6.3	68	D/7343-31	T495D686(1)006A(2)4095	4.3	4.0	175	926	833	370	1
6.3	100	B/3528-21	T495B107(1)006A(2)E400	6.3	15.0	400	461	415	184	1
6.3	100	B/3528-21	T495B107(M)006A(2)E700	6.3	15.0	700	348	313	139	1
6.3	100	C/6032-28	T495C107(1)006A(2)E075	6.3	8.0	75	1211	1090	484	1
6.3	100	C/6032-28	T495C107(1)006A(2)E150	6.3	8.0	150	856	770	342	1
6.3	100	D/7343-31	T495D107(1)006A(2)E050	6.3	6.0	50	1732	1559	693	1
6.3	100	D/7343-31	T495D107(1)006A(2)E130	6.3	6.0	130	1074	967	430	1
6.3	100	D/7343-31	T495D107(1)006A(2)E150	6.3	8.0	150	1000	900	400	1
6.3	100	V/7343-20	T495V107(1)006A(2)E090	6.3	8.0	90	1179	1061	472	1
6.3	100	V/7343-20	T495V107(1)006A(2)E150	6.3	8.0	150	913	822	365	1
6.3	150	C/6032-28	T495C157(1)006A(2)E050	9.5	8.0	50	1483	1335	593	1
6.3	150	C/6032-28	T495C157(M)006A(2)E200	9.5	8.0	200	742	668	297	1
VDC	µF	KEMET/EIA	(See below for part options)	µAmps +20°C max/5min	% @ +20°C 120 Hz max	Ω @ 20°C 100 kHz max	(mArms) 100 Khz 25°C	(mArms) 100kHz +85°C	(mArms) 100kHz +125°C	Reflow Temp≤260°C
Rated Voltage	Rated Cap	Case Code/ Case Size	KEMET Part Number	DC Leakage	DF	ESR	Maximum Allowable Ripple Current			Moisture Sensitivity

(1) To complete KEMET part number, insert M for ± 20% or K for ± 10%. Designates Capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates Termination Finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

Table 1 – Ratings & Part Number Reference cont'd

Rated Voltage	Rated Cap	Case Code/ Case Size	KEMET Part Number	DC Leakage	DF	ESR	Maximum Allowable Ripple Current			Moisture Sensitivity
VDC	µF	KEMET/EIA	(See below for part options)	µAmps +20°C max/5min	% @ +20°C 120 Hz max	Ω @ 20°C 100 kHz max	(mArms) 100 Khz 25°C	(mArms) 100kHz +85°C	(mArms) 100kHz +125°C	Reflow Temp≤260°C
6.3	150	V/7343-20	T495V157(1)006A(2)E040	9.5	8.0	40	1768	1591	707	1
6.3	150	V/7343-20	T495V157(1)006A(2)E070	9.5	8.0	70	1336	1202	534	1
6.3	150	D/7343-31	T495D157(1)006A(2)E050	9.5	6.0	50	1732	1559	693	1
6.3	150	D/7343-31	T495D157(1)006A(2)E125	9.5	6.0	125	1095	986	438	1
6.3	150	X/7343-43	T495X157(1)006A(2)E100	9.5	6.0	100	1285	1157	514	1
6.3	150	X/7343-43	T495X157(1)006A(2)4095	9.5	6.0	125	1149	1034	460	1
6.3	220	C/6032-28	T495C227(1)006(2)E225	13.9	10.0	25	2098	1888	839	1
6.3	220	D/7343-31	T495D227(1)006A(2)E045	13.9	8.0	45	1826	1643	730	1
6.3	220	D/7343-31	T495D227(1)006A(2)E100	13.9	8.0	100	1225	1103	490	1
6.3	220	D/7343-31	T495D227(1)006A(2)4095	13.9	8.0	100	1225	1103	490	1
6.3	220	X/7343-43	T495X227(1)006A(2)E070	13.9	8.0	70	1535	1382	614	1
6.3	220	X/7343-43	T495X227(1)006A(2)E100	13.9	8.0	100	1285	1157	514	1
6.3	220	V/7343-20	T495V227(1)006ATE150	13.9	8.0	150	913	822	365	1
6.3	220	X/7343-43	T495X227(1)006A(2)4095	13.9	8.0	100	1285	1157	514	1
6.3	330	D/7343-31	T495D337(1)006A(2)E040	20.8	8.0	40	1936	1742	774	1
6.3	330	D/7343-31	T495D337(1)006A(2)E050	20.8	8.0	50	1732	1559	693	1
6.3	330	D/7343-31	T495D337(1)006A(2)E070	20.8	8.0	70	1464	1318	586	1
6.3	330	D/7343-31	T495D337(1)006A(2)E100	20.8	8.0	100	1225	1103	490	1
6.3	330	X/7343-43	T495X337(1)006A(2)E065	20.8	8.0	65	1593	1434	637	1
6.3	330	X/7343-43	T495X337(1)006A(2)E045	20.8	8.0	45	1915	1724	766	1
6.3	330	X/7343-43	T495X337(1)006A(2)E100	20.8	8.0	100	1285	1157	514	1
6.3	330	E/7260-38	T495E337(1)006A(2)E060	20.8	8.0	60	1826	1643	730	1
6.3	330	E/7260-38	T495E337(1)006A(2)E100	20.8	8.0	100	1414	1273	566	1
6.3	470	D/7343-31	T495D477(M)006A(2)E045	29.6	12.0	45	1826	1643	730	1
6.3	470	D/7343-31	T495D477(1)006A(2)E100	29.6	12.0	100	1225	1103	490	1
6.3	470	D/7343-31	T495D477(1)006A(2)E125	29.6	12.0	125	1095	986	438	1
6.3	470	X/7343-43	T495X477(1)006A(2)E030	29.6	10.0	30	2345	2111	938	1
6.3	470	X/7343-43	T495X477(1)006A(2)E045	29.6	10.0	45	1915	1724	766	1
6.3	470	X/7343-43	T495X477(1)006A(2)E050	29.6	10.0	50	1817	1635	727	1
6.3	470	X/7343-43	T495X477(1)006A(2)E065	29.6	10.0	65	1593	1434	637	1
6.3	470	E/7260-38	T495E477(1)006A(2)E040	29.6	12.0	40	2236	2012	894	1
6.3	470	E/7260-38	T495E477(1)006A(2)E055	29.6	10.0	55	1907	1716	763	1
6.3	470	E/7260-38	T495E477(1)006A(2)E100	29.6	10.0	100	1414	1273	566	1
6.3	1000	E/7260-38	T495E108(1)006A(2)E050	63.0	15.0	50	2000	1800	800	1
10	2.2	A/3216-18	T495A225(1)010A(2)E1K8	0.5	6.0	1800	204	184	82	1
10	4.7	A/3216-18	T495A475(1)010A(2)E1K2	0.5	6.0	1200	250	225	100	1
10	4.7	A/3216-18	T495A475(1)010A(2)E1K3	0.5	6.0	1300	240	216	96	1
10	4.7	A/3216-18	T495A475(1)010A(2)E1K8	0.5	6.0	1800	204	184	82	1
10	4.7	B/3528-21	T495B475(1)010A(2)E1K3	0.5	15.0	1300	256	230	102	1
10	6.8	A/3216-18	T495A685(1)010A(2)E1K8	0.7	6.0	1800	204	184	82	1
10	6.8	B/3528-21	T495B685(1)010A(2)E900	0.7	6.0	900	307	276	123	1
10	10	A/3216-18	T495A106(1)010A(2)E1K8	1.0	6.0	1800	204	184	82	1
10	10	A/3216-18	T495A106(1)010A(2) E2K0	1.0	6.0	2000	194	175	78	1
10	10	B/3528-21	T495B106(1)010AT E1K2	1.0	6.0	1200	266	239	106	1
10	10	B/3528-21	T495B106(1)010A(2)E750	1.0	6.0	750	337	303	135	1
10	10	B/3528-21	T495B106(1)010AT E600	1.0	6.0	600	376	338	150	1
10	10	C/6032-28	T495C106(1)010AT E400	1.0	6.0	400	524	472	210	1
10	10	T/3528-12	T495T106(1)010AT E1K5	1.0	6.0	1500	216	194	86	1
10	15	A/3216-18	T495A156(1)010AT E1K0	1.5	6.0	1000	274	247	110	1
VDC	µF	KEMET/EIA	(See below for part options)	µAmps +20°C max/5min	% @ +20°C 120 Hz max	Ω @ 20°C 100 kHz max	(mArms) 100 Khz 25°C	(mArms) 100kHz +85°C	(mArms) 100kHz +125°C	Reflow Temp≤260°C
Rated Voltage	Rated Cap	Case Code/ Case Size	KEMET Part Number	DC Leakage	DF	ESR	Maximum Allowable Ripple Current			Moisture Sensitivity

(1) To complete KEMET part number, insert M for ± 20% or K for ± 10%. Designates Capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates Termination Finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

Table 1 – Ratings & Part Number Reference cont'd

Rated Voltage	Rated Cap	Case Code/ Case Size	KEMET Part Number	DC Leakage	DF	ESR	Maximum Allowable Ripple Current			Moisture Sensitivity
VDC	µF	KEMET/EIA	(See below for part options)	µAmps +20°C max/5min	% @ +20°C 120 Hz max	Ω @ 20°C 100 kHz max	(mArms) 100 Khz 25°C	(mArms) 100kHz +85°C	(mArms) 100kHz +125°C	Reflow Temp≤260°C
10	15	A/3216-18	T495A156(1)010AT E1K8	1.5	6.0	1800	204	184	82	1
10	15	B/3528-21	T495B156(1)010AT E600	1.5	6.0	600	376	338	150	1
10	15	B/3528-21	T495B156(1)010AT E900	1.5	6.0	900	307	276	123	1
10	15	T/3528-12	T495T156(1)010AT E1K2	1.5	6.0	1200	242	218	97	1
10	15	B/3528-21	T495B156(1)010A(2)E500	1.5	6.0	500	412	371	165	1
10	15	C/6032-28	T495C156(1)010A(2)E375	1.5	6.0	375	542	488	217	1
10	15	C/6032-28	T495C156(1)010A(2)E400	1.5	6.0	400	524	472	210	1
10	15	C/6032-28	T495C156(1)010A(2)E475	1.5	6.0	475	481	433	192	1
10	22	A/3216-18	T495A226(1)010AT E1K2	2.2	8.0	1200	250	225	100	1
10	22	A/3216-18	T495A226(1)010AT E1K5	2.2	8.0	1500	224	202	90	1
10	22	B/3528-21	T495B226(1)010AT E400	2.2	6.0	400	461	415	184	1
10	22	B/3528-21	T495B226(1)010AT E500	2.2	6.0	500	412	371	165	1
10	22	B/3528-21	T495B226(1)010AT E700	2.2	6.0	700	348	313	139	1
10	22	B/3528-21	T495B226(1)010AT E800	2.2	6.0	800	326	293	130	1
10	22	C/6032-28	T495C226(1)010A(2)E200	2.2	6.0	200	742	668	297	1
10	22	C/6032-28	T495C226(1)010A(2)E245	2.2	6.0	245	670	603	268	1
10	22	C/6032-28	T495C226(1)010A(2)E290	2.2	6.0	290	616	554	246	1
10	22	C/6032-28	T495C226(1)010A(2)E345	2.2	6.0	345	565	509	226	1
10	33	B/3528-21	T495B336(1)010A(2)E450	3.3	6.0	450	435	392	174	1
10	33	V/7343-20	T495V336(1)010A(2)E100	3.3	6.0	100	1118	1006	447	1
10	33	V/7343-20	T495V336(1)010A(2)E150	3.3	6.0	150	913	822	365	1
10	47	B/3528-21	T495B476(1)010A(2)E500	4.7	6.0	500	412	371	165	1
10	47	D/7343-31	T495D476(1)010A(2)E080	4.7	4.0	80	1369	1232	548	1
10	47	D/7343-31	T495D476(1)010A(2)E090	4.7	6.0	90	1291	1162	516	1
10	47	D/7343-31	T495D476(1)010A(2)E200	4.7	4.0	200	866	779	346	1
10	47	D/7343-31	T495D476(1)010A(2)4095	4.7	4.0	200	866	779	346	1
10	68	B/3528-21	T495B686(1)010A(2)E600	6.8	10.0	600	376	338	150	1
10	68	B/3528-21	T495B686(1)010A(2)E750	6.8	10.0	750	337	303	135	1
10	68	B/3528-21	T495B686(M)010A(2)E900	6.8	10.0	900	307	276	123	1
10	68	C/6032-28	T495C686(1)010A(2)E080	6.8	6.0	80	1173	1056	469	1
10	68	C/6032-28	T495C686(1)010A(2)E225	6.8	6.0	225	699	629	280	1
10	68	V/7343-20	T495V686(1)010A(2)E070	6.8	6.0	70	1336	1202	534	1
10	68	V/7343-20	T495V686(1)010A(2)E100	6.8	6.0	100	1118	1006	447	1
10	68	V/7343-20	T495V686(1)010A(2)E140	6.8	6.0	140	945	851	378	1
10	68	D/7343-31	T495D686(1)010A(2)E070	6.8	6.0	70	1464	1318	586	1
10	68	D/7343-31	T495D686(1)010A(2)E090	6.8	6.0	90	1291	1162	516	1
10	68	D/7343-31	T495D686(1)010A(2)E150	6.8	6.0	150	1000	900	400	1
10	68	X/7343-43	T495X686(1)010A(2)E150	6.8	4.0	150	1049	944	420	1
10	68	X/7343-43	T495X686(1)010A(2)4095	6.8	4.0	150	1049	944	420	1
10	100	B/3528-21	T495B107(M)010A(2)E500	10.0	30.0	500	412	371	165	1
10	100	V/7343-20	T495V107(1)010A(2)E100	10.0	8.0	100	1118	1006	447	1
10	100	V/7343-20	T495V107(1)010A(2)E150	10.0	8.0	150	913	822	365	1
10	100	D/7343-31	T495D107(1)010A(2)E050	10.0	8.0	50	1732	1559	693	1
10	100	D/7343-31	T495D107(1)010A(2)E065	10.0	8.0	65	1519	1367	608	1
10	100	D/7343-31	T495D107(1)010A(2)E080	10.0	8.0	80	1369	1232	548	1
10	100	D/7343-31	T495D107(1)010A(2)E100	10.0	8.0	100	1225	1103	490	1
10	100	D/7343-31	T495D107(1)010A(2)4095	10.0	8.0	100	1225	1103	490	1
10	100	X/7343-43	T495X107(1)010A(2)E100	10.0	6.0	100	1285	1157	514	1
10	100	X/7343-43	T495X107(1)010A(2)4095	10.0	6.0	100	1285	1157	514	1
10	150	V/7343-20	T495V157(1)010A(2)E100	15.0	8.0	100	1118	1006	447	1
VDC	µF	KEMET/EIA	(See below for part options)	µAmps +20°C max/5min	% @ +20°C 120 Hz max	Ω @ 20°C 100 kHz max	(mArms) 100 Khz 25°C	(mArms) 100kHz +85°C	(mArms) 100kHz +125°C	Reflow Temp≤260°C
Rated Voltage	Rated Cap	Case Code/ Case Size	KEMET Part Number	DC Leakage	DF	ESR	Maximum Allowable Ripple Current			Moisture Sensitivity

(1) To complete KEMET part number, insert M for ± 20% or K for ± 10%. Designates Capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates Termination Finish.

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Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

Table 1 – Ratings & Part Number Reference cont'd

Rated Voltage	Rated Cap	Case Code/ Case Size	KEMET Part Number	DC Leakage	DF	ESR	Maximum Allowable Ripple Current			Moisture Sensitivity
VDC	µF	KEMET/EIA	(See below for part options)	µAmps +20°C max/5min	% @ +20°C 120 Hz max	Ω @ 20°C 100 kHz max	(mArms) 100 Khz 25°C	(mArms) 100kHz +85°C	(mArms) 100kHz +125°C	Reflow Temp≤260°C
10	150	V/7343-20	T495V157(M)010A(2)E150	15.0	8.0	150	913	822	365	1
10	150	D/7343-31	T495D157(1)010A(2)E050	15.0	8.0	50	1732	1559	693	1
10	150	D/7343-31	T495D157(1)010A(2)E060	15.0	8.0	60	1581	1423	632	1
10	150	D/7343-31	T495D157(1)010A(2)E080	15.0	8.0	80	1369	1232	548	1
10	150	D/7343-31	T495D157(1)010A(2)E100	15.0	8.0	100	1225	1103	490	1
10	150	D/7343-31	T495D157(1)010A(2)4095	15.0	8.0	100	1225	1103	490	1
10	150	X/7343-43	T495X157(1)010A(2)E070	15.0	8.0	70	1535	1382	614	1
10	150	X/7343-43	T495X157(1)010A(2)E080	15.0	8.0	80	1436	1292	574	1
10	150	X/7343-43	T495X157(1)010A(2)E085	15.0	8.0	85	1393	1254	557	1
10	150	X/7343-43	T495X157(1)010A(2)E100	15.0	8.0	100	1285	1157	514	1
10	150	X/7343-43	T495X157(1)010A(2)4095	15.0	8.0	100	1285	1157	514	1
10	220	D/7343-31	T495D227(1)010A(2)E045	22.0	8.0	45	1826	1643	730	1
10	220	D/7343-31	T495D227(1)010A(2)E075	22.0	8.0	75	1414	1273	566	1
10	220	D/7343-31	T495D227(1)010A(2)E100	22.0	8.0	100	1225	1103	490	1
10	220	D/7343-31	T495D227(1)010A(2)E125	22.0	8.0	125	1095	986	438	1
10	220	X/7343-43	T495X227(1)010A(2)E045	22.0	8.0	45	1915	1724	766	1
10	220	X/7343-43	T495X227(1)010A(2)E050	22.0	8.0	50	1817	1635	727	1
10	220	X/7343-43	T495X227(1)010A(2)E060	22.0	8.0	60	1658	1492	663	1
10	220	X/7343-43	T495X227(1)010A(2)E070	22.0	8.0	70	1535	1382	614	1
10	220	X/7343-43	T495X227(1)010A(2)E100	22.0	8.0	100	1285	1157	514	1
10	220	X/7343-43	T495X227(1)010A(2)4095	22.0	8.0	100	1285	1157	514	1
10	330	D/7343-31	T495D337(1)010A(2)E100	33.0	8.0	100	1225	1103	490	1
10	330	D/7343-31	T495D337(1)010A(2)E125	33.0	10.0	125	1095	986	438	1
10	330	D/7343-31	T495D337(1)010A(2)E150	33.0	10.0	150	1000	900	400	1
10	330	X/7343-43	T495X337(1)010A(2)E035	33.0	10.0	35	2171	1954	868	1
10	330	X/7343-43	T495X337(1)010A(2)E050	33.0	10.0	50	1817	1635	727	1
10	330	X/7343-43	T495X337(1)010A(2)E060	33.0	10.0	60	1658	1492	663	1
10	330	X/7343-43	T495X337(1)010A(2)E100	33.0	10.0	100	1285	1157	514	1
10	330	E/7260-38	T495E337(1)010A(2)E040	33.0	8.0	40	2236	2012	894	1
10	330	E/7260-38	T495E337(1)010A(2)E060	33.0	10.0	60	1826	1643	730	1
10	330	E/7260-38	T495E337(1)010A(2)E100	33.0	10.0	100	1414	1273	566	1
10	470	X/7343-43	T495X477(1)010A(2)E045	47.0	10.0	45	1915	1724	766	1
10	470	X/7343-43	T495X477(1)010A(2)E050	47.0	10.0	50	1817	1635	727	1
10	470	X/7343-43	T495X477(M)010A(2)E060	47.0	10.0	60	1658	1492	663	1
10	470	X/7343-43	T495X477(M)010A(2)E100	47.0	10.0	100	1285	1157	514	1
10	470	X/7343-43	T495X477(M)010A(2)E200	47.0	10.0	200	908	817	363	1
10	470	E/7260-38	T495E477(1)010A(2)E040	47.0	10.0	40	2236	2012	894	1
10	470	E/7260-38	T495E477(1)010A(2)E060	47.0	10.0	60	1826	1643	730	1
10	470	E/7260-38	T495E477(1)010A(2)E100	47.0	10.0	100	1414	1273	566	1
16	3.3	A/3216-18	T495A335(1)016A(2)E3K0	0.5	6.0	3000	158	142	63	1
16	4.7	A/3216-18	T495A475(1)016A(2)E2K0	0.8	6.0	2000	194	175	78	1
16	4.7	B/3528-21	T495B475(1)016A(2)E700	0.8	6.0	700	348	313	139	1
16	6.8	C/6032-28	T495C685(1)016A(2)E750	1.1	6.0	750	383	345	153	1
16	10	B/3528-21	T495B106(1)016A(2)E800	1.6	6.0	800	326	293	130	1
16	10	T/3528-12	T495T106(M)016A(2)E4K0	1.6	8.0	4000	132	119	53	1
16	15	A/3216-18	T495A156(1)016A(2)E2K5	2.4	8.0	2500	173	156	69	1
16	15	B/3528-21	T495B156(1)016A(2)E800	2.4	6.0	800	326	293	130	1
16	33	C/6032-28	T495C336(1)016A(2)E200	5.3	6.0	200	742	668	297	1
16	33	C/6032-28	T495C336(1)016A(2)E225	5.3	6.0	225	699	629	280	1
VDC	µF	KEMET/EIA	(See below for part options)	µAmps +20°C max/5min	% @ +20°C 120 Hz max	Ω @ 20°C 100 kHz max	(mArms) 100 Khz 25°C	(mArms) 100kHz +85°C	(mArms) 100kHz +125°C	Reflow Temp≤260°C
Rated Voltage	Rated Cap	Case Code/ Case Size	KEMET Part Number	DC Leakage	DF	ESR	Maximum Allowable Ripple Current			Moisture Sensitivity

(1) To complete KEMET part number, insert M for ± 20% or K for ± 10%. Designates Capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates Termination Finish.

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Table 1 – Ratings & Part Number Reference cont'd

Rated Voltage	Rated Cap	Case Code/ Case Size	KEMET Part Number	DC Leakage	DF	ESR	Maximum Allowable Ripple Current			Moisture Sensitivity
VDC	µF	KEMET/EIA	(See below for part options)	µAmps +20°C max/5min	% @ +20°C 120 Hz max	Ω @ 20°C 100 kHz max	(mArms) 100 Khz 25°C	(mArms) 100kHz +85°C	(mArms) 100kHz +125°C	Reflow Temp≤260°C
16	33	C/6032-28	T495C336(1)016A(2)E275	5.3	6.0	275	632	569	253	1
16	33	D/7343-31	T495D336(1)016A(2)E150	5.3	6.0	150	1000	900	400	1
16	33	D/7343-31	T495D336(1)016A(2)E175	5.3	6.0	175	926	833	370	1
16	33	D/7343-31	T495D336(1)016A(2)E225	5.3	4.0	225	816	734	326	1
16	33	D/7343-31	T495D336(1)016A(2)4095	5.3	4.0	250	775	698	310	1
16	47	C/6032-28	T495C476(1)016A(2)E350	7.5	6.0	350	561	505	224	1
16	47	D/7343-31	T495D476(1)016A(2)E080	7.5	6.0	80	1369	1232	548	1
16	47	D/7343-31	T495D476(1)016A(2)E100	7.5	6.0	100	1225	1103	490	1
16	47	D/7343-31	T495D476(1)016A(2)E150	7.5	6.0	150	1000	900	400	1
16	47	D/7343-31	T495D476(1)016A(2)4095	7.5	6.0	200	866	779	346	1
16	68	V/7343-20	T495V686(1)016A(2)E180	10.9	6.0	180	833	750	333	1
16	68	V/7343-20	T495V686(1)016A(2)E300	10.9	6.0	300	645	581	258	1
16	68	D/7343-31	T495D686(1)016A(2)E070	10.9	6.0	70	1464	1318	586	1
16	68	D/7343-31	T495D686(1)016A(2)E100	10.9	6.0	100	1225	1103	490	1
16	68	D/7343-31	T495D686(1)016A(2)E150	10.9	6.0	150	1000	900	400	1
16	100	D/7343-31	T495D107(1)016A(2)E100	16.0	8.0	100	1225	1103	490	1
16	100	D/7343-31	T495D107(1)016A(2)E125	16.0	8.0	125	1095	986	438	1
16	100	X/7343-43	T495X107(1)016A(2)E080	16.0	8.0	80	1436	1292	574	1
16	100	X/7343-43	T495X107(1)016A(2)E100	16.0	8.0	100	1285	1157	514	1
16	100	X/7343-43	T495X107(1)016A(2)4095	16.0	8.0	125	1149	1034	460	1
16	150	D/7343-31	T495D157(M)016A(2)E060	24.0	12.0	60	1581	1423	632	1
16	150	D/7343-31	T495D157(M)016A(2)E085	24.0	8.0	85	1328	1195	531	1
16	150	D/7343-31	T495D157(M)016A(2)E100	24.0	8.0	100	1225	1103	490	1
16	150	D/7343-31	T495D157(1)016A(2)E125	24.0	8.0	125	1095	986	438	1
16	150	D/7343-31	T495D157(1)016A(2)E150	24.0	8.0	150	1000	900	400	1
16	150	X/7343-43	T495X157(1)016A(2)E075	24.0	8.0	75	1483	1335	593	1
16	150	X/7343-43	T495X157(1)016A(2)E100	24.0	8.0	100	1285	1157	514	1
16	220	X/7343-43	T495X227(1)016A(2)E100	35.2	8.0	100	1285	1157	514	1
16	220	E/7260-38	T495E227(1)016A(2)E050	35.2	12.0	50	2000	1800	800	1
16	220	E/7260-38	T495E227(1)016A(2)E075	35.2	8.0	75	1633	1470	653	1
16	220	E/7260-38	T495E227(1)016A(2)E100	35.2	7.2	100	1414	1273	566	1
16	220	E/7260-38	T495E227(1)016A(2)E150	35.2	7.2	150	1155	1040	462	1
20	1	A/3216-18	T495A105(1)020A(2)E3K0	0.5	4.0	3000	158	142	63	1
20	10	B/3528-21	T495B106(1)020A(2)E1K0	2.0	6.0	1000	292	263	117	1
20	10	B/3528-21	T495B106(1)020A(2)E800	2.0	6.0	800	326	293	130	1
20	10	C/6032-28	T495C106(1)020A(2)E300	2.0	6.0	300	606	545	242	1
20	10	C/6032-28	T495C106(1)020A(2)E350	2.0	6.0	350	561	505	224	1
20	10	C/6032-28	T495C106(1)020A(2)E400	2.0	6.0	400	524	472	210	1
20	10	C/6032-28	T495C106(1)020A(2)E475	2.0	6.0	475	481	433	192	1
20	15	C/6032-28	T495C156(1)020A(2)E375	3.0	6.0	375	542	488	217	1
20	15	D/7343-31	T495D156(1)020A(2)E275	3.0	4.0	275	739	665	296	1
20	15	D/7343-31	T495D156(1)020A(2)4095	3.0	4.0	275	739	665	296	1
20	22	D/7343-31	T495D226(1)020A(2)E180	4.4	4.0	180	913	822	365	1
20	22	D/7343-31	T495D226(1)020A(2)E225	4.4	4.0	225	816	734	326	1
20	22	D/7343-31	T495D226(1)020A(2)4095	4.4	4.0	275	739	665	296	1
20	33	D/7343-31	T495D336(1)020A(2)E100	6.6	6.0	100	1225	1103	490	1
20	33	D/7343-31	T495D336(1)020A(2)E150	6.6	6.0	150	1000	900	400	1
20	33	D/7343-31	T495D336(1)020A(2)E200	6.6	6.0	200	866	779	346	1
20	47	D/7343-31	T495D476(1)020A(2)E075	9.4	6.0	75	1414	1273	566	1
VDC	µF	KEMET/EIA	(See below for part options)	µAmps +20°C max/5min	% @ +20°C 120 Hz max	Ω @ 20°C 100 kHz max	(mArms) 100 Khz 25°C	(mArms) 100kHz +85°C	(mArms) 100kHz +125°C	Reflow Temp≤260°C
Rated Voltage	Rated Cap	Case Code/ Case Size	KEMET Part Number	DC Leakage	DF	ESR	Maximum Allowable Ripple Current			Moisture Sensitivity

(1) To complete KEMET part number, insert M for ± 20% or K for ± 10%. Designates Capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates Termination Finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

Table 1 – Ratings & Part Number Reference cont'd

Rated Voltage	Rated Cap	Case Code/ Case Size	KEMET Part Number	DC Leakage	DF	ESR	Maximum Allowable Ripple Current			Moisture Sensitivity
VDC	µF	KEMET/EIA	(See below for part options)	µAmps +20°C max/5min	% @ +20°C 120 Hz max	Ω @ 20°C 100 kHz max	(mArms) 100 Khz 25°C	(mArms) 100kHz +85°C	(mArms) 100kHz +125°C	Reflow Temp≤260°C
20	47	D/7343-31	T495D476(1)020A(2)E100	9.4	6.0	100	1225	1103	490	1
20	47	D/7343-31	T495D476(1)020A(2)E175	9.4	6.0	175	926	833	370	1
20	47	X/7343-43	T495X476(1)020A(2)E065	9.4	8.0	65	1593	1434	637	1
20	47	X/7343-43	T495X476(1)020A(2)E100	9.4	6.0	100	1285	1157	514	1
20	47	X/7343-43	T495X476(1)020A(2)E125	9.4	6.0	125	1149	1034	460	1
20	47	X/7343-43	T495X476(1)020A(2)E150	9.4	4.0	150	1049	944	420	1
20	47	X/7343-43	T495X476(1)020A(2)4095	9.4	4.0	150	1049	944	420	1
20	68	D/7343-31	T495D686(1)020A(2)E070	13.6	8.0	70	1464	1318	586	1
20	68	D/7343-31	T495D686(1)020A(2)E150	13.6	8.0	150	1000	900	400	1
20	68	X/7343-43	T495X686(1)020A(2)E120	13.6	6.0	120	1173	1056	469	1
20	68	X/7343-43	T495X686(1)020A(2)E150	13.6	6.0	150	1049	944	420	1
20	68	X/7343-43	T495X686(1)020A(2)4095	13.6	6.0	150	1049	944	420	1
20	100	X/7343-43	T495X107(1)020A(2)E100	20.0	6.0	100	1285	1157	514	1
20	100	X/7343-43	T495X107(1)020A(2)E150	20.0	8.0	150	1049	944	420	1
20	100	E/7260-38	T495E107(1)020A(2)E060	20.0	8.0	60	1826	1643	730	1
20	100	E/7260-38	T495E107(1)020A(2)E085	20.0	8.0	85	1534	1381	614	1
20	100	E/7260-38	T495E107(1)020A(2)E100	20.0	8.0	100	1414	1273	566	1
20	100	E/7260-38	T495E107(1)020A(2)E200	20.0	8.0	200	1000	900	400	1
20	150	E/7260-38	T495E157(1)020A(2)E080	30.0	8.0	80	1581	1423	632	1
25	0.47	A/3216-18	T495A474(1)025A(2)E4K5	0.5	4.0	4500	129	116	52	1
25	1	A/3216-18	T495A105(1)025A(2)E2K5	0.5	4.0	2500	173	156	69	1
25	1	A/3216-18	T495A105(1)025A(2)E3K0	0.5	4.0	3000	158	142	63	1
25	1	A/3216-18	T495A105(1)025A(2)E5K0	0.5	4.0	5000	4	4	2	1
25	2.2	C/6032-28	T495C225(1)025A(2)E1K3	0.6	6.0	1300	291	262	116	1
25	3.3	C/6032-28	T495C335(1)025A(2)E750	0.8	6.0	750	383	345	153	1
25	4.7	C/6032-28	T495C475(1)025A(2)E575	1.2	6.0	575	437	393	175	1
25	4.7	B/3528-21	T495B475(1)025A(2)E1K0	1.2	6.0	1000	292	263	117	1
25	6.8	B/3528-21	T495B685(1)025A(2)E1K5	1.7	6.0	1500	238	214	95	1
25	6.8	C/6032-28	T495C685(1)025A(2)E400	1.7	6.0	400	524	472	210	1
25	6.8	C/6032-28	T495C685(1)025A(2)E490	1.7	6.0	490	474	427	190	1
25	6.8	C/6032-28	T495C685(1)025A(2)E500	1.7	6.0	500	469	422	188	1
25	10	C/6032-28	T495C106(1)025A(2)E275	2.5	6.0	275	632	569	253	1
25	10	C/6032-28	T495C106(1)025A(2)E300	2.5	6.0	300	606	545	242	1
25	10	C/6032-28	T495C106(1)025A(2)E450	2.5	6.0	450	494	445	198	1
25	15	D/7343-31	T495D156(1)025A(2)E100	3.8	6.0	100	1225	1103	490	1
25	15	D/7343-31	T495D156(1)025A(2)E275	3.8	6.0	275	739	665	296	1
25	15	D/7343-31	T495D156(1)025A(2)4095	3.8	6.0	275	739	665	296	1
25	15	X/7343-43	T495X156(1)025A(2)E200	3.8	4.0	200	908	817	363	1
25	15	X/7343-43	T495X156(1)025A(2)4095	3.8	4.0	200	908	817	363	1
25	22	C/6032-28	T495C226(1)025A(2)E275	5.5	6.0	275	632	569	253	1
25	22	C/6032-28	T495C226(1)025A(2)E300	5.5	8.0	300	606	545	242	1
25	22	C/6032-28	T495C226(1)025A(2)E900	5.5	6.0	900	350	315	140	1
25	22	D/7343-31	T495D226(1)025A(2)E200	5.5	6.0	200	866	779	346	1
25	22	X/7343-43	T495X226(1)025A(2)E225	5.5	4.0	225	856	770	342	1
25	22	X/7343-43	T495X226(1)025A(2)4095	5.5	4.0	225	856	770	342	1
25	33	D/7343-31	T495D336(1)025A(2)E090	8.3	6.0	90	1291	1162	516	1
25	33	D/7343-31	T495D336(1)025A(2)E100	8.3	6.0	100	1225	1103	490	1
25	33	D/7343-31	T495D336(1)025A(2)E225	8.3	6.0	225	816	734	326	1
25	33	D/7343-31	T495D336(1)025A(2)E300	8.3	6.0	300	707	636	283	1
VDC	µF	KEMET/EIA	(See below for part options)	µAmps +20°C max/5min	% @ +20°C 120 Hz max	Ω @ 20°C 100 kHz max	(mArms) 100 Khz 25°C	(mArms) 100kHz +85°C	(mArms) 100kHz +125°C	Reflow Temp≤260°C
Rated Voltage	Rated Cap	Case Code/ Case Size	KEMET Part Number	DC Leakage	DF	ESR	Maximum Allowable Ripple Current			Moisture Sensitivity

(1) To complete KEMET part number, insert M for ± 20% or K for ± 10%. Designates Capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates Termination Finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

Table 1 – Ratings & Part Number Reference cont'd

Rated Voltage	Rated Cap	Case Code/ Case Size	KEMET Part Number	DC Leakage	DF	ESR	Maximum Allowable Ripple Current			Moisture Sensitivity
VDC	µF	KEMET/EIA	(See below for part options)	µAmps +20°C max/5min	% @ +20°C 120 Hz max	Ω @ 20°C 100 kHz max	(mArms) 100 Khz 25°C	(mArms) 100kHz +85°C	(mArms) 100kHz +125°C	Reflow Temp≤260°C
25	33	X/7343-43	T495X336(1)025A(2)E100	8.3	4.0	100	1285	1157	514	1
25	33	X/7343-43	T495X336(1)025A(2)E175	8.3	4.0	175	971	874	388	1
25	33	X/7343-43	T495X336(1)025A(2)E200	8.3	4.0	200	908	817	363	1
25	33	X/7343-43	T495X336(1)025A(2)4095	8.3	4.0	175	971	874	388	1
25	47	X/7343-43	T495X476(M)025A(2)E080	11.8	8.0	80	1436	1292	574	1
25	47	X/7343-43	T495X476(M)025A(2)E150	11.8	6.0	150	1049	944	420	1
25	47	X/7343-43	T495X476(M)025A(2)E185	11.8	8.0	185	944	850	378	1
25	47	X/7343-43	T495X476(M)025A(2)E200	11.8	6.0	200	908	817	363	1
25	47	D/7343-31	T495D476(M)025A(2)E120	11.8	10.0	120	1118	1006	447	1
25	47	D/7343-31	T495D476(1)025A(2)E250	11.8	10.0	250	775	698	310	1
25	68	D/7343-31	T495D686(1)025A(2)E150	17.0	10.0	150	1000	900	400	1
25	68	D/7343-31	T495D686(1)025A(2)E200	17.0	10.0	200	866	779	346	1
25	68	X/7343-43	T495X686(1)025A(2)E125	17.0	8.0	125	1149	1034	460	1
25	68	X/7343-43	T495X686(1)025A(2)E150	17.0	8.0	150	1049	944	420	1
25	68	X/7343-43	T495X686(1)025A(2)E200	17.0	8.0	200	908	817	363	1
25	100	E/7260-38	T495E107(1)025A(2)E100	25.0	8.0	100	1414	1273	566	1
35	0.47	B/3528-21	T495B474(1)035A(2)E1K5	0.5	4.0	1500	238	214	95	1
35	0.47	B/3528-21	T495B474(1)035A(2)E2K2	0.5	4.0	2200	197	177	79	1
35	1	A/3216-18	T495A105(1)035A(2)E3K0	0.5	4.0	3000	158	142	63	1
35	1	B/3528-21	T495B105(1)035A(2)E1K5	0.5	4.0	1500	238	214	95	1
35	1	B/3528-21	T495B105(1)035A(2)E1K7	0.5	4.0	1700	224	202	90	1
35	2.2	B/3528-21	T495B225(1)035A(2)E1K5	0.8	6.0	1500	238	214	95	1
35	2.2	C/6032-28	T495C225(1)035A(2)E750	0.8	6.0	750	383	345	153	1
35	3.3	B/3528-21	T495B335(1)035A(2)E900	1.2	6.0	900	307	276	123	1
35	3.3	C/6032-28	T495C335(1)035A(2)E525	1.2	6.0	525	458	412	183	1
35	3.3	C/6032-28	T495C335(1)035A(2)E550	1.2	6.0	550	447	402	179	1
35	3.3	C/6032-28	T495C335(1)035A(2)E600	1.2	6.0	600	428	385	171	1
35	4.7	B/3528-21	T495B475(1)035A(2)E1K0	1.6	6.0	1000	292	263	117	1
35	4.7	C/6032-28	T495C475(1)035A(2)E450	1.6	6.0	450	494	445	198	1
35	4.7	C/6032-28	T495C475(1)035A(2)E500	1.6	6.0	500	469	422	188	1
35	4.7	C/6032-28	T495C475(1)035A(2)E600	1.6	6.0	600	428	385	171	1
35	4.7	C/6032-28	T495C475(1)035A(2)4095	1.6	6.0	600	428	385	171	1
35	6.8	D/7343-31	T495D685(1)035A(2)E150	2.4	6.0	150	1000	900	400	1
35	6.8	D/7343-31	T495D685(1)035A(2)E400	2.4	6.0	400	612	551	245	1
35	6.8	X/7343-43	T495X685(1)035A(2)E300	2.4	4.0	300	742	668	297	1
35	6.8	X/7343-43	T495X685(1)035A(2)4095	2.4	4.0	300	742	668	297	1
35	10	D/7343-31	T495D106(1)035A(2)E125	3.5	6.0	125	1095	986	438	1
35	10	D/7343-31	T495D106(1)035A(2)E250	3.5	6.0	250	775	698	310	1
35	10	D/7343-31	T495D106(1)035A(2)E300	3.5	6.0	300	707	636	283	1
35	10	D/7343-31	T495D106(1)035A(2)4095	3.5	4.0	300	707	636	283	1
35	10	X/7343-43	T495X106(1)035A(2)E175	3.5	6.0	175	971	874	388	1
35	10	X/7343-43	T495X106(1)035A(2)E200	3.5	6.0	200	908	817	363	1
35	10	X/7343-43	T495X106(1)035A(2)E250	3.5	4.0	250	812	731	325	1
35	10	X/7343-43	T495X106(1)035A(2)4095	3.5	4.0	250	812	731	325	1
35	15	D/7343-31	T495D156(1)035A(2)E225	5.3	6.0	225	816	734	326	1
35	15	D/7343-31	T495D156(1)035A(2)E300	5.3	6.0	300	707	636	283	1
35	15	X/7343-43	T495X156(1)035A(2)E200	5.3	6.0	200	908	817	363	1
35	15	X/7343-43	T495X156(1)035A(2)E225	5.3	6.0	225	856	770	342	1
35	15	X/7343-43	T495X156(1)035A(2)4095	5.3	6.0	225	856	770	342	1
VDC	µF	KEMET/EIA	(See below for part options)	µAmps +20°C max/5min	% @ +20°C 120 Hz max	Ω @ 20°C 100 kHz max	(mArms) 100 Khz 25°C	(mArms) 100kHz +85°C	(mArms) 100kHz +125°C	Reflow Temp≤260°C
Rated Voltage	Rated Cap	Case Code/ Case Size	KEMET Part Number	DC Leakage	DF	ESR	Maximum Allowable Ripple Current			Moisture Sensitivity

(1) To complete KEMET part number, insert M for ± 20% or K for ± 10%. Designates Capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates Termination Finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

Table 1 – Ratings & Part Number Reference cont'd

Rated Voltage	Rated Cap	Case Code/ Case Size	KEMET Part Number	DC Leakage	DF	ESR	Maximum Allowable Ripple Current			Moisture Sensitivity
VDC	µF	KEMET/EIA	(See below for part options)	µAmps +20°C max/5min	% @ +20°C 120 Hz max	Ω @ 20°C 100 kHz max	(mArms) 100 Khz 25°C	(mArms) 100kHz +85°C	(mArms) 100kHz +125°C	Reflow Temp≤260°C
35	22	D/7343-31	T495D226(1)035A(2)E125	7.7	6.0	125	1095	986	438	1
35	22	D/7343-31	T495D226(1)035A(2)E200	7.7	6.0	200	866	779	346	1
35	22	D/7343-31	T495D226(1)035A(2)E250	7.7	6.0	250	775	698	310	1
35	22	D/7343-31	T495D226(1)035A(2)E300	7.7	6.0	300	707	636	283	1
35	22	X/7343-43	T495X226(1)035A(2)E125	7.7	6.0	125	1149	1034	460	1
35	22	X/7343-43	T495X226(1)035A(2)E200	7.7	6.0	200	908	817	363	1
35	22	X/7343-43	T495X226(1)035A(2)E275	7.7	6.0	275	775	698	310	1
35	22	X/7343-43	T495X226(1)035A(2)4095	7.7	6.0	300	742	668	297	1
35	33	D/7343-31	T495D336(1)035A(2)E200	11.6	6.0	200	866	779	346	1
35	33	D/7343-31	T495D336(1)035A(2)E300	11.6	6.0	300	707	636	283	1
35	33	X/7343-43	T495X336(1)035A(2)E100	11.6	6.0	100	1285	1157	514	1
35	33	X/7343-43	T495X336(1)035A(2)E175	11.6	6.0	175	971	874	388	1
35	33	X/7343-43	T495X336(1)035A(2)E250	11.6	6.0	250	812	731	325	1
35	33	E/7260-38	T495E336(1)035A(2)E200	11.6	6.0	200	1000	900	400	1
35	47	X/7343-43	T495X476(1)035A(2)E185	16.5	8.0	185	944	850	378	1
35	47	X/7343-43	T495X476(1)035A(2)E200	16.5	8.0	200	908	817	363	1
35	47	X/7343-43	T495X476(1)035A(2)E300	16.5	8.0	300	742	668	297	1
50	1	C/6032-28	T495C105(1)050A(2)E1K3	0.5	4.0	1300	291	262	116	1
50	2.2	D/7343-31	T495D225(1)050A(2)E600	1.1	6.0	600	500	450	200	1
50	3.3	D/7343-31	T495D335(1)050A(2)E700	1.7	6.0	700	463	417	185	1
50	4.7	D/7343-31	T495D475(1)050A(2)E275	2.4	6.0	275	739	665	296	1
50	4.7	D/7343-31	T495D475(1)050A(2)E300	2.4	6.0	300	707	636	283	1
50	4.7	X/7343-43	T495X475(1)050A(2)E300	2.4	4.0	300	742	668	297	1
50	4.7	X/7343-43	T495X475(1)050A(2)4095	2.4	4.0	300	742	668	297	1
50	6.8	D/7343-31	T495D685(1)050A(2)E190	3.4	6.0	190	889	800	356	1
50	6.8	D/7343-31	T495D685(1)050A(2)E200	3.4	6.0	200	866	779	346	1
50	6.8	D/7343-31	T495D685(1)050A(2)E275	3.4	6.0	275	739	665	296	1
50	6.8	D/7343-31	T495D685(1)050A(2)E300	3.4	8.0	300	707	636	283	1
50	10	X/7343-43	T495X106(1)050A(2)E250	5.0	8.0	250	812	731	325	1
50	10	X/7343-43	T495X106(1)050A(2)E260	5.0	6.0	260	797	717	319	1
50	10	X/7343-43	T495X106(1)050A(2)E300	5.0	6.0	300	742	668	297	1
50	15	X/7343-43	T495X156(1)050A(2)E200	7.5	8.0	200	908	817	363	1
50	15	X/7343-43	T495X156(1)050A(2)E300	7.5	8.0	300	742	668	297	1
VDC	µF	KEMET/EIA	(See below for part options)	µAmps +20°C max/5min	% @ +20°C 120 Hz max	Ω @ 20°C 100 kHz max	(mArms) 100 Khz 25°C	(mArms) 100kHz +85°C	(mArms) 100kHz +125°C	Reflow Temp≤260°C
Rated Voltage	Rated Cap	Case Code/ Case Size	KEMET Part Number	DC Leakage	DF	ESR	Maximum Allowable Ripple Current			Moisture Sensitivity

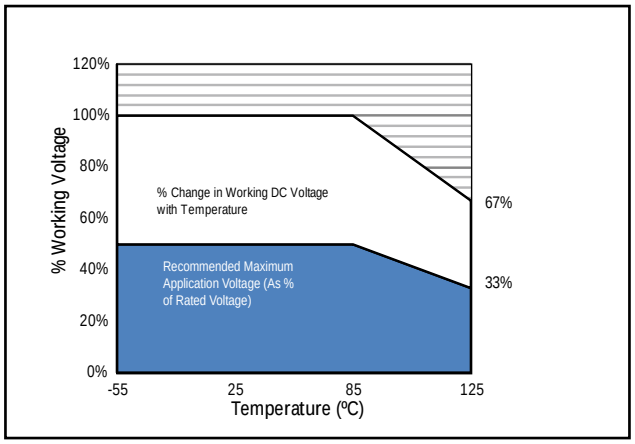
(1) To complete KEMET part number, insert M for ± 20% or K for ± 10%. Designates Capacitance tolerance.

(2) To complete KEMET part number, insert T = 100% Matte Tin (Sn) Plated, G = Gold Plated, H = Standard Solder coated (SnPb 5% Pb minimum). Designates Termination Finish.

Refer to Ordering Information for additional detail.

Higher voltage ratings and tighter tolerance product including ESR may be substituted within the same size at KEMET's option. Voltage substitution will be marked with the higher voltage rating. Substitutions can include better than series.

Recommended Voltage Derating Guidelines



Ripple Current/Ripple Voltage

Case Code		Maximum Power Dissipation (Pmax) mWatts @ 25°C w/+20°C Rise
KEMET	EIA	
A	3216-18	75
B	3528-21	85
C	6032-28	110
D	7343-31	150
X	7343-43	165
E	7260-38	200
R	2012-12	25
S	3216-12	60
T	3528-12	70
U	6032-15	90
V	7343-20	125
T510X	7343-43	270
T510E	7260-38	285

Temperature Compensation Multipliers for Maximum Power Dissipation		
≤25°C	85°C	125°C
1.00	0.90	0.40

T= Environmental Temperature

Using the P max of the device, the maximum allowable rms ripple current or voltage may be determined.

$I(max) = \sqrt{P\ max/R}$
$E(max) = \sqrt{P\ max * R}$

I = rms ripple current (amperes)
E = rms ripple voltage (volts)
Pmax = maximum power dissipation (watts)
R = ESR at specified frequency (ohms)

Reverse Voltage

Solid tantalum capacitors are polar devices and may be permanently damaged or destroyed if connected with the wrong polarity. The positive terminal is identified on the capacitor body by a stripe plus in some cases a beveled edge. A small degree of transient reverse voltage is permissible for short periods per the table. The capacitors should not be operated continuously in reverse mode, even within these limits.

Temperature	Permissible Transient Reverse Voltage
25°C	15% of Rated Voltage
85°C	5% of Rated Voltage
125°C	1% of Rated Voltage

Table 2 – Land Dimensions/Courtyard

KEMET	Metric Size Code	Density Level A: Maximum (Most) Land Protrusion (mm)					Density Level B: Median (Nominal) Land Protrusion (mm)					Density Level C: Minimum (Least) Land Protrusion (mm)				
Case	EIA	X	Y	**C**	V1	V2	X	Y	**C**	V1	V2	X	Y	**C**	V1	V2
A	3216-18	1.35	2.15	1.45	6.10	2.80	1.25	1.75	1.35	5.00	2.30	1.15	1.35	1.25	4.10	2.00
B	3528-19	2.35	2.15	1.45	6.10	4.00	2.25	1.75	1.35	5.00	3.50	2.15	1.35	1.25	4.10	3.20
C	6032-28	2.35	2.65	2.60	8.90	4.40	2.25	2.25	2.50	7.80	3.90	2.15	1.85	2.40	6.90	3.60
D	7343-31	2.55	3.75	2.70	10.20	5.50	2.45	3.35	2.60	9.10	5.00	2.35	2.95	2.50	8.20	4.70
E[1]	7260-38	4.25	2.65	3.20	10.10	7.20	4.15	2.25	3.30	9.40	6.70	4.05	1.85	3.00	8.10	6.40
T	3528-12	2.35	2.15	1.45	6.10	4.00	2.25	1.75	1.35	5.00	3.50	2.15	1.35	1.25	4.10	3.20
V	7343-20	2.55	3.75	2.70	10.20	5.50	2.45	3.35	2.60	9.10	5.00	2.35	2.95	2.50	8.20	4.70
X[1]	7343-43	2.55	3.75	2.70	10.20	5.50	2.45	3.35	2.60	9.10	5.00	2.35	2.95	2.50	8.20	4.70

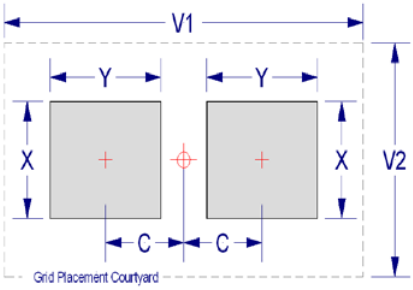
Density Level A: For low-density product applications. Recommended for wave solder applications and provides a wider process window for reflow solder processes.

Density Level B: For products with a moderate level of component density. Provides a robust solder attachment condition for reflow solder processes.

Density Level C: For high component density product applications. Before adapting the minimum land pattern variations the user should perform qualification testing based on the conditions outlined in IPC standard 7351 (IPC-7351).

[1] Height of these chips may create problems in wave soldering.

[2] Land pattern geometry is too small for silkscreen outline.



Soldering Process

KEMET's families of surface mount capacitors are compatible with wave (single or dual), convection, IR or vapor phase reflow techniques. Preheating of these components is recommended to avoid extreme thermal stress. KEMET's recommended profile conditions for convection and IR reflow reflect the profile conditions of the IPC/J-STD-020D standard for moisture sensitivity testing. The devices can safely withstand a maximum of three reflow passes at these conditions.

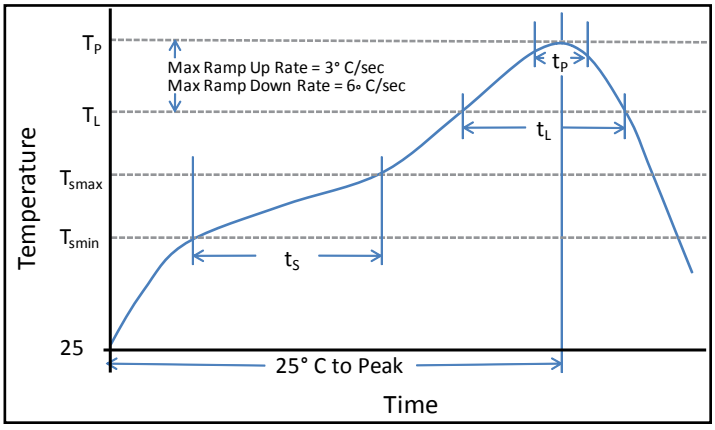
Note that although the X/7343-43 case size can withstand wave soldering, the tall profile (4.3 mm maximum) dictates care in wave process development.

Hand soldering should be performed with care due to the difficulty in process control. If performed, care should be taken to avoid contact of the soldering iron to the molded case. The iron should be used to heat the solder pad, applying solder between the pad and the termination, until reflow occurs. Once reflow occurs, the iron should be removed immediately. "Wiping" the edges of a chip and heating the top surface is not recommended.

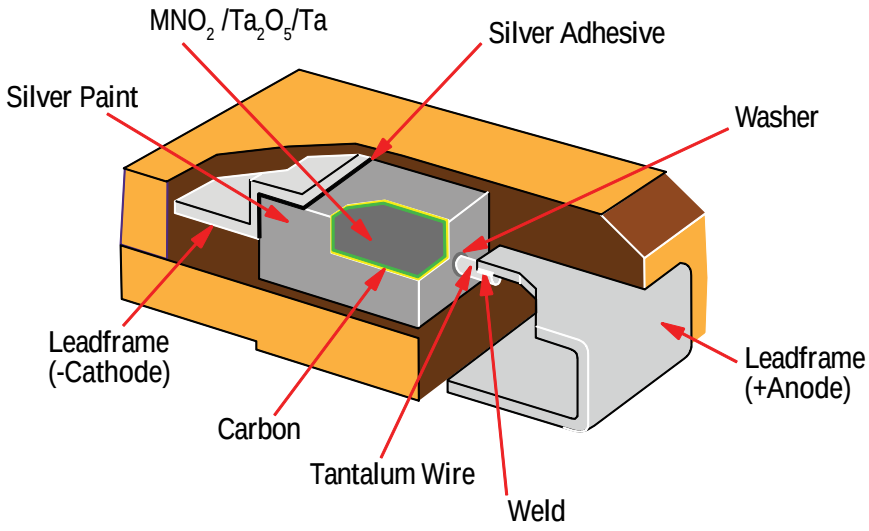
During typical reflow operations, a slight darkening of the gold-colored epoxy may be observed. This slight darkening is normal and is not harmful to the product. Marking permanency is not affected by this change.

Profile Feature	SnPb Assembly	Pb-Free Assembly
Preheat/Soak		
Temperature Min (T_{Smin})	100°C	150°C
Temperature Max (T_{Smax})	150°C	200°C
Time (t_s) from T_{smin} to T_{smax})	60–120 sec	60–120 sec
Ramp-up Rate (T_L to T_P)	3°C/sec max	3°C/sec max
Liquidous Temperature (T_L)	183°C	217°C
Time Above Liquidous (t_L)	60–150 sec	60–150 sec
Peak Temperature (T_P)	220°C* 235°C**	250°C* 260°C**
Time within 5°C of Max Peak Temperature (t_P)	20 sec max	30 sec max
Ramp-down Rate (T_P to T_L)	6°C/sec max	6°C/sec max
Time 25°C to Peak Temperature	6 minutes max	8 minutes max

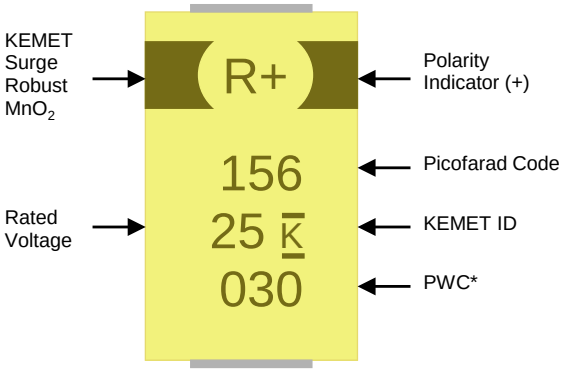
Note: All temperatures refer to the center of the package, measured on the package body surface that is facing up during assembly reflow.
**Case Size D, E, P, Y and X*
***Case Size A, B, C, H, I, K, M, R, S, T, U, V, W and Z*



Construction

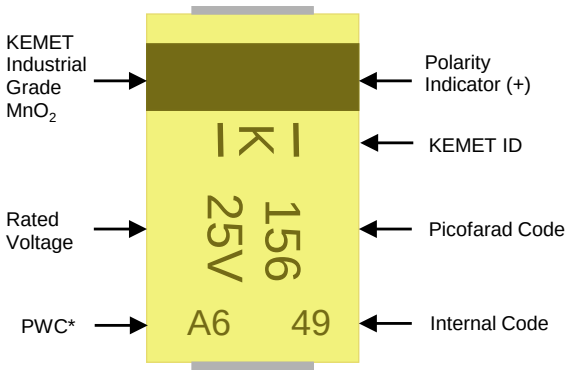


Capacitor Marking



* 030 = 30th week of 2010

C, D, X Case Sizes



PWC*		
Year	Month	
V = 2008	1 = Jan	7 = Jul
W = 2008	2 = Feb	8 = Aug
X = 2009	3 = Mar	9 = Spt
A = 2010	4 = Apr	O = Oct
B = 2011	5 = May	N = Nov
C = 2012	6 = Jun	D = Dec

Storage

Tantalum chip capacitors should be stored in normal working environments. While the chips themselves are quite robust in other environments, solderability will be degraded by exposure to high temperatures, high humidity, corrosive atmospheres, and long term storage. In addition, packaging materials will be degraded by high temperature - reels may soften or warp, and tape peel force may increase. KEMET recommends that maximum storage temperature not exceed 40ºC, and maximum storage humidity not exceed 60% relative humidity. In addition, temperature fluctuations should be minimized to avoid condensation on the parts, and atmospheres should be free of chlorine and sulphur bearing compounds. For optimized solderability, chip stock should be used promptly, preferably within three years of receipt.

Tape & Reel Packaging Information

KEMET's Molded Tantalum and Aluminum Chip Capacitor families are packaged in 8 mm and 12 mm plastic tape on 7" and 13" reels, in accordance with EIA Standard 481-D: Taping of Surface Mount Components for Automatic Handling. This packaging system is compatible with all tape fed automatic pick and place systems.

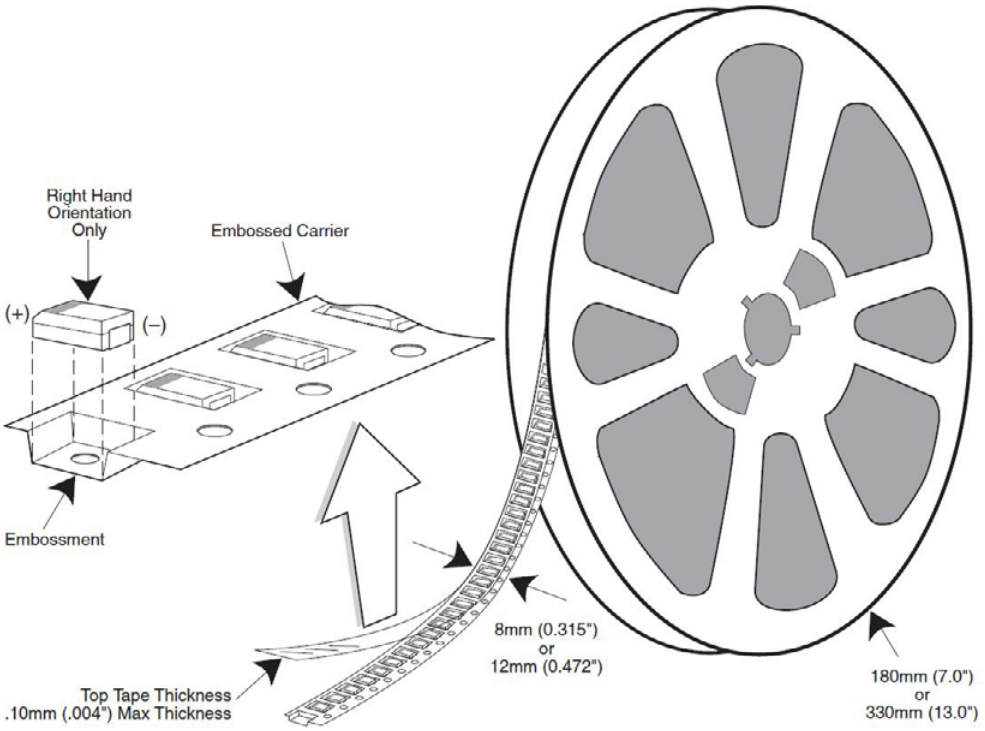


Table 3 – Packaging Quantity

Case Code		Tape Width-mm	7" Reel*	13" Reel*
KEMET	EIA			
R	2012-12	8	2,500	10,000
I	3216-10	8	3,000	12,000
S	3216-12	8	2,500	10,000
T	3528-12	8	2,500	10,000
M	3528-15	8	2,000	8,000
U	6032-15	12	1,000	5,000
L	6032-19	12	1,000	5,000
W	7343-15	12	1,000	3,000
Z	7343-17	12	1,000	3,000
V	7343-20	12	1,000	3,000
A	3216-18	8	2,000	9,000
B	3528-21	8	2,000	8,000
C	6032-28	12	500	3,000
D	7343-31	12	500	2,500
Y	7343-40	12	500	2,000
X	7343-43	12	500	2,000
E	7260-38	12	500	2,000

** No c-spec required for 7" reel packaging. C-7280 required for 13" reel packaging.*

Figure 1 – Embossed (Plastic) Carrier Tape Dimensions

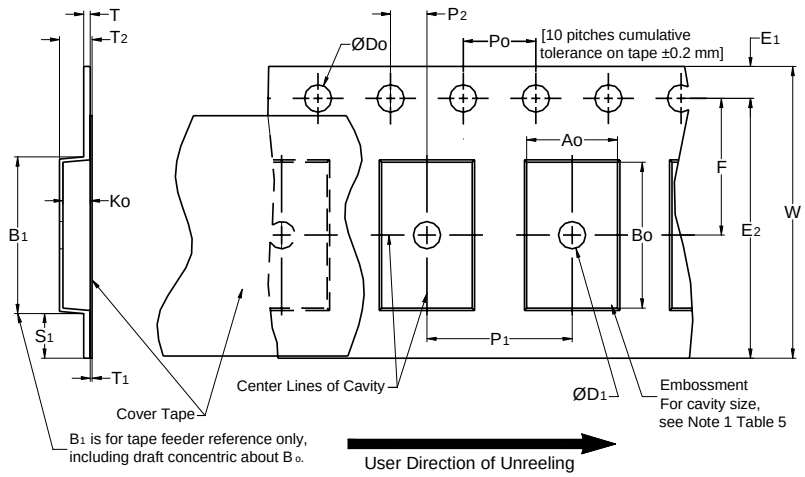


Table 4 – Embossed (Plastic) Carrier Tape Dimensions

Metric will govern

Constant Dimensions — Millimeters (Inches)									
Tape Size	D_0	D_1 Min. Note 1	E_1	P_0	P_2	R Ref. Note 2	S_1 Min. Note 3	T Max.	T_1 Max.
8 mm	1.5 +0.10/-0.0 (0.059 +0.004/-0.0)	1.0 (0.039)	1.75 ± 0.10 (0.069 ± 0.004)	4.0 ± 0.10 (0.157 ± 0.004)	2.0 ± 0.05 (0.079 ± 0.002)	25.0 (0.984)	0.600 (0.024)	0.600 (0.024)	0.100 (0.004)
12 mm		1.5 (0.059)				30 (1.181)			
16 mm									

Variable Dimensions — Millimeters (Inches)								
Tape Size	Pitch	B_1 Max. Note 4	E_2 Min.	F	P_1	T_2 Max	W Max	A_0,B_0 & K_0
8 mm	Single (4 mm)	4.35 (0.171)	6.25 (0.246)	3.5 ± 0.05 (0.138 ± 0.002)	4.0 ± 0.10 (0.157 ± 0.004)	2.5 (0.098)	8.3 (0.327)	Note 5
12 mm	Single (4 mm) & Double (8 mm)	8.2 (0.323)	10.25 (0.404)	5.5 ± 0.05 (0.217 ± 0.002)	8.0 ± 0.10 (0.315 ± 0.004)	4.6 (0.181)	12.3 (0.484)	
16 mm	Triple (12 mm)	12.1 (0.476)	14.25 (0.561)	5.5 ± 0.05 (0.217 ± 0.002)	8.0 ± 0.10 (0.315 ± 0.004)	4.6 (0.181)	16.3 (0.642)	

1. The embossment hole location shall be measured from the sprocket hole controlling the location of the embossment. Dimensions of embossment location and hole location shall be applied independent of each other.

2. The tape with or without components shall pass around R without damage (see Figure 5).

3. If S_1<1.0 mm, there may not be enough area for cover tape to be properly applied (see EIA Document 481 paragraph 4.3 (b)).

4. B_1 dimension is a reference dimension for tape feeder clearance only.

5. The cavity defined by A_0, B_0 and K_0 shall surround the component with sufficient clearance that:

(a) the component does not protrude above the top surface of the carrier tape.

(b) the component can be removed from the cavity in a vertical direction without mechanical restriction, after the top cover tape has been removed.

(c) rotation of the component is limited to 20° maximum for 8 and 12mm tapes and 10° maximum for 16mm tapes (see Figure 3).

(d) lateral movement of the component is restricted to 0.5 mm maximum for 8mm and 12mm wide tape and to 1.0mm maximum for 16mm tape (see Figure 4).

(e) see Addendum in EIA Document 481 for standards relating to more precise taping requirements.

Packaging Information Performance Notes

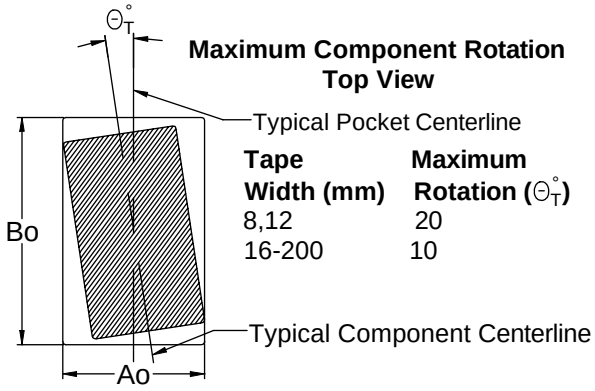
1. **Cover Tape Break Force:** *1.0 Kg minimum.*
2. **Cover Tape Peel Strength:** *The total peel strength of the cover tape from the carrier tape shall be:*

Tape Width	Peel Strength
8 mm	0.1 Newton to 1.0 Newton (10gf to 100gf)
12 mm & 16 mm	0.1 Newton to 1.3 Newton (10gf to 130gf)

The direction of the pull shall be opposite the direction of the carrier tape travel. The pull angle of the carrier tape shall be 165° to 180° from the plane of the carrier tape. During peeling, the carrier and/or cover tape shall be pulled at a velocity of 300±10 mm/minute.

3. **Labeling:** *Bar code labeling (standard or custom) shall be on the side of the reel opposite the sprocket holes. Refer to EIA-556 and EIA-624.*

Figure 2 – Maximum Component Rotation



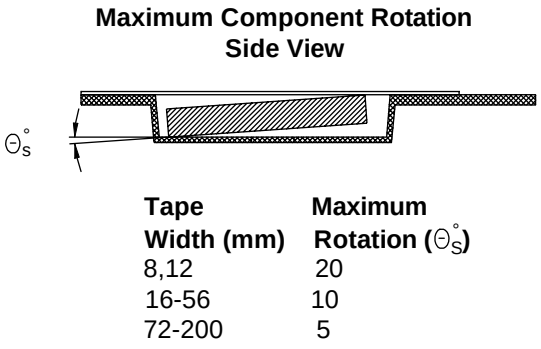


Figure 3 – Maximum Lateral Movement

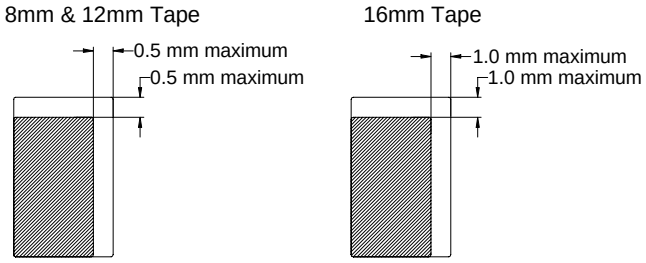


Figure 4 – Bending Radius

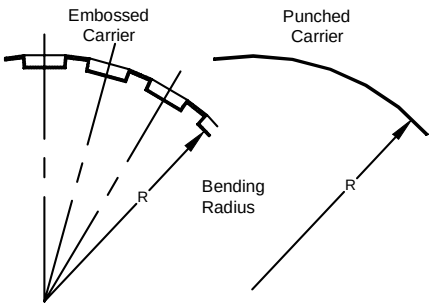
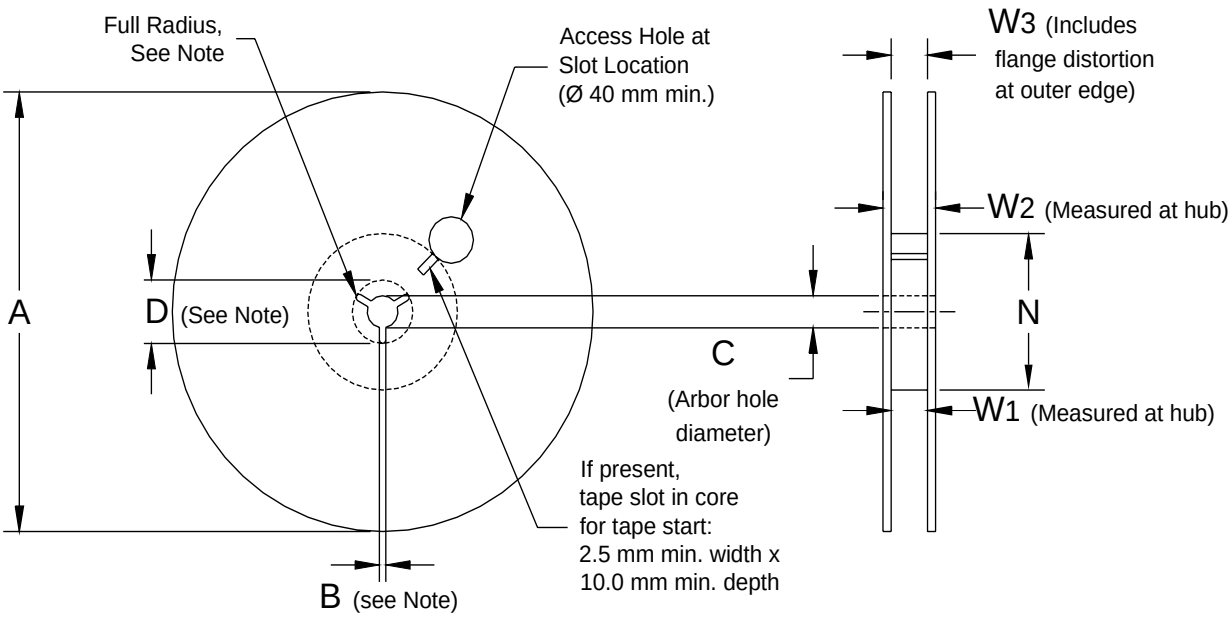


Figure 5 – Reel Dimensions



Note: Drive spokes optional; if used, dimensions B and D shall apply.

Table 5 – Reel Dimensions

Metric will govern

Constant Dimensions — Millimeters (Inches)				
Tape Size	A	B Min	C	D Min
8 mm	178 ± 0.20 (7.008 ± 0.008) or 330 ± 0.20 (13.000 ± 0.008)	1.5 (0.059)	13.0 +0.5/-0.2 (0.521 +0.02/-0.008)	20.2 (0.795)
12 mm				
16 mm				

Variable Dimensions — Millimeters (Inches)				
Tape Size	N Min	W_1	W_2 Max	W_3
8 mm	50 (1.969)	8.4 +1.5/-0.0 (0.331 +0.059/-0.0)	14.4 (0.567)	Shall accommodate tape width without interference
12 mm		12.4 +2.0/-0.0 (0.488 +0.078/-0.0)	18.4 (0.724)	
16 mm		16.4 +2.0/-0.0 (0.646 +0.078/-0.0)	22.4 (0.882)	

Figure 6 – Tape Leader & Trailer Dimensions

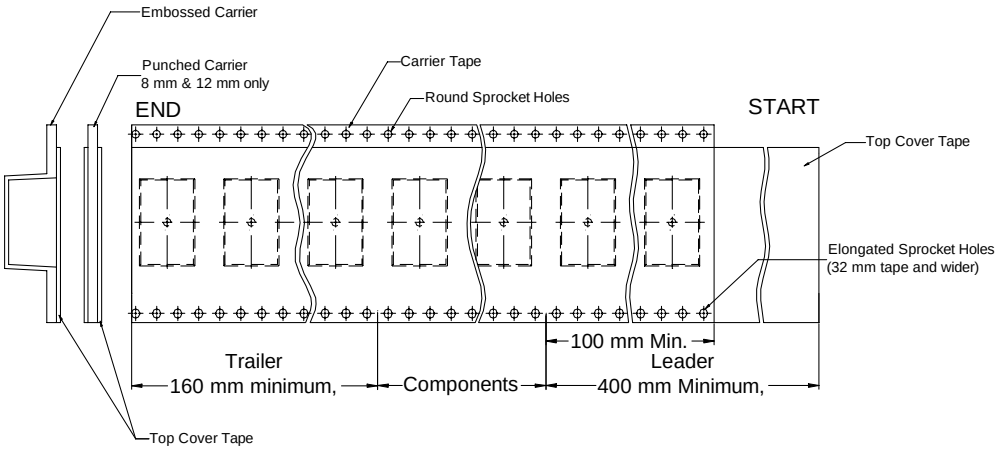
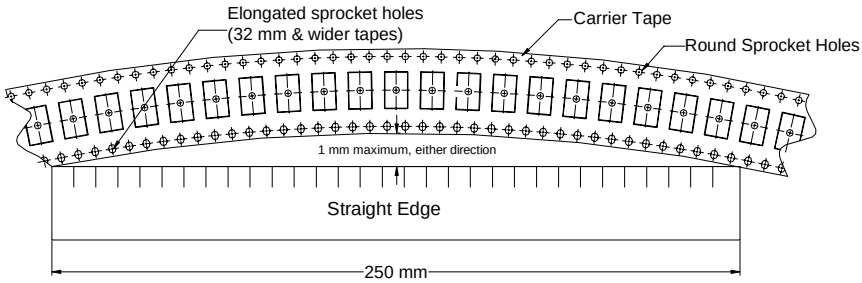


Figure 7 – Maximum Camber



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Tel: 408-433-9950

Mexico
Zapopan, Jalisco
Tel: 52-33-3123-2141

Europe

Southern Europe
Geneva, Switzerland
Tel: 41-22-715-0100

Paris, France
Tel: 33-1-4646-1009

Sasso Marconi, Italy
Tel: 39-051-939111

Milan, Italy
Tel: 39-02-57518176

Rome, Italy
Tel: 39-06-23231718

Madrid, Spain
Tel: 34-91-804-4303

Central Europe
Landsberg, Germany
Tel: 49-8191-3350800

Dortmund, Germany
Tel: 49-2307-3619672

Kwidzyn, Poland
Tel: 48-55-279-7025

Northern Europe
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Tel: 44-1279-757201

Weymouth, United Kingdom
Tel: 44-1305-830747

Coatbridge, Scotland
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Färjestaden, Sweden
Tel: 46-485-563934

Espoo, Finland
Tel: 358-9-5406-5000

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Northeast Asia
Hong Kong
Tel: 852-2305-1168

Shenzhen, China
Tel: 86-755-2518-1306

Beijing, China
Tel: 86-10-5829-1711

Shanghai, China
Tel: 86-21-6447-0707

Taipei, Taiwan
Tel: 886-2-27528585

Southeast Asia
Singapore
Tel: 65-6586-1900

Penang, Malaysia
Tel: 60-4-6430200

Bangalore, India
Tel: 91-806-53-76817

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Other KEMET Resources

Tools	
Resource	Location
Configure A Part: CapEdge	http://capacitoredge.kemet.com
SPICE & FIT Software	http://www.kemet.com/spice
Search Our FAQs: KnowledgeEdge	http://www.kemet.com/keask

Product Information	
Resource	Location
Products	http://www.kemet.com/products
Technical Resources (Including Soldering Techniques)	http://www.kemet.com/technicalpapers
RoHS Statement	http://www.kemet.com/rohs
Quality Documents	http://www.kemet.com/qualitydocuments

Product Request	
Resource	Location
Sample Request	http://www.kemet.com/sample
Engineering Kit Request	http://www.kemet.com/kits

Contact	
Resource	Location
Website	www.kemet.com
Contact Us	http://www.kemet.com/contact
Investor Relations	http://www.kemet.com/ir
Call Us	1-877-MyKEMET
Twitter	http://twitter.com/kemetcapacitors

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Although we design and manufacture our products to the most stringent quality and safety standards, given the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage.

Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated or that other measures may not be required.

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