

PERFORMANCE CHARACTERISTICS

- **CAPACITANCE/VOLTAGE RANGE:**
T35X/T39X: 0.1-680 μ F, 3-50 Volts.
T36X: 0.1-330 μ F, 6-50 Volts.
- **CAPACITANCE TOLERANCE:** Available in standard EIA nominal values with $\pm 20\%$ and $\pm 10\%$ standard.
- **DISSIPATION FACTOR:** Maximum DF limits are shown in corresponding series part number listings. See Application Notes Section, page 76 for additional information.
- **DC LEAKAGE CURRENT:** Maximum leakage values at 25° are shown in part number listings, pages 63-65, 67, 68 and 70. See Application Notes Section, pages 76 & 77 for additional information.
- **RATED VOLTAGE; WORKING VOLTAGE; SURGE VOLTAGE; REVERSE VOLTAGE:** See Application Notes Section, pages 76 & 77 for description.
- **IMPEDANCE and ESR:** See Application Notes Section, page 77 & 78 for description. Reference ESR values are shown in table below.

Commercial T35X/T36X/T39X ESR (OHMS) at 100 kHz @ +25°C
(The ESR values provided below are for reference only. No warranty, as stated on page 3 and reincorporated here, is made as to the accuracy of these values for any particular T35X, T36X, T39X Series product.)

Cap. μ F	6 Volt	10 Volt	16 Volt	20 Volt	25 Volt	35 Volt	50 Volt
0.10						26.0	26.0
0.15						21.0	21.0
0.22						17.0	17.0
0.33						15.0	15.0
0.47						13.0	13.0
0.68						10.0	10.0
1.00				10.0	10.0	8.0	8.0
1.50			10.0	9.0	8.0	6.0	5.0
2.20		13.0	8.0	7.0	6.0	5.0	3.5
3.30	13.0	10.0	6.0	5.5	5.0	4.0	3.0
4.70	10.0	8.0	5.0	4.5	4.0	3.0	2.5
6.80	8.0	6.0	4.0	3.6	3.1	2.5	2.0
10.0	6.0	5.0	3.2	2.9	2.5	2.0	1.6
15.0	5.0	3.7	2.5	2.3	2.0	1.6	1.2
22.0	3.7	2.7	2.0	1.8	1.5	1.3	1.0
33.0	3.0	2.1	1.6	1.4	1.2	1.0	
47.0	2.0	1.7	1.3	1.2	1.0	0.8	
68.0	1.8	1.3	1.0	0.9	0.8		
100.0	1.6	1.0	0.8	0.6			
150.0	0.9	0.8	0.6				
220.0	0.9	0.6					
330.0	0.7						

- **AC RIPPLE VOLTAGE:** Permissible AC ripple voltage is related to equivalent series resistance (ESR) and power dissipation capability. Maximum power dissipation for each case size is listed in Table below. For additional description see page 78.

Case Size	Power Dissipation (max.) @ 25°C (watts)
T35X, A	.040
T39X B	.050
C	.060
D	.065
E	.070
F	.080
G	.090
H	.100
J	.110
K	.120
L	.130
M	.140
T36X A	.050
B	.075
C	.090
D	.135

Maximum Power Dissipation Capability @ 25°C

- **ENVIRONMENTAL CONSIDERATIONS:**
 - Shock Test: MIL-STD-202, Method 213.
 - Thermal Shock, MIL-STD-202, Method 107, Condition A.
 - Moisture Resistance: MIL-STD-202, Method 106.
 - Solderability: MIL-STD-202, Method 208.
For additional Environmental Test Information see pages 80, 81 and 82.
- **LEAD MATERIAL:** Solder coated steel core with copper ply per MIL-STD-127.
- **LEAD TAPE and REEL:** Reeling per specification RS-468. See pages 72 - 74 for additional information.

The KEMET 'UltraDip II' Capacitors offer the designer of quality instruments and entertainment systems the widely recognized advantages inherent in solid tantalum capacitors at competitive prices.

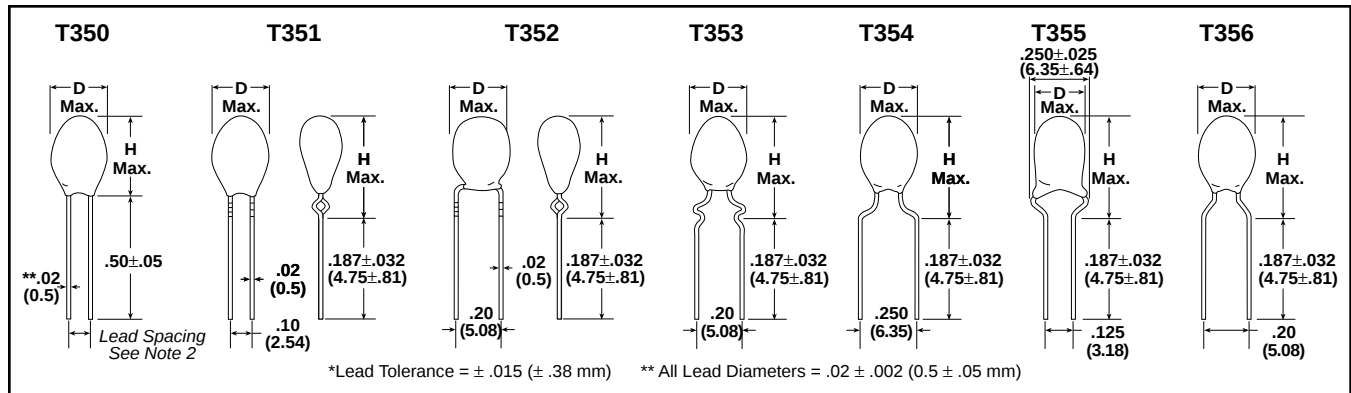
The 'UltraDip II' Series, miniature dipped solid tantalum capacitors, provide the designer with the advantage of compactness plus low leakage and low DF performance characteristics for filtering, bypassing, coupling, blocking and RC timing circuits. This series features a capacitance range from 0.1 to 680 microfarads at voltages from 3 to 50 VDC. 'UltraDip II' capacitors utilize the same sophisticated materials and processes which have advanced KEMET Electronics Corporation to the leadership position in solid tantalum capacitors.

The plastic case provides a tough barrier coating and maintains precision of lead wire spacing within ± 0.015 inch. The gold color epoxy utilized permits Laser marking with outstanding permanency and legibility. All case sizes are printed with capacitance, voltage, polarity and vendor identification.

Solid tantalum devices exhibit no degradation failure mode during shelf storage and show a constantly decreasing failure rate (i.e., absence of wearout mechanism) during life tests.

The 'UltraDip II' Series provides self-insulating cases which are resistant to shock and vibration. These capacitors exhibit low DCL, ESR and Impedance and have excellent temperature stability.

CAPACITOR OUTLINE DRAWINGS



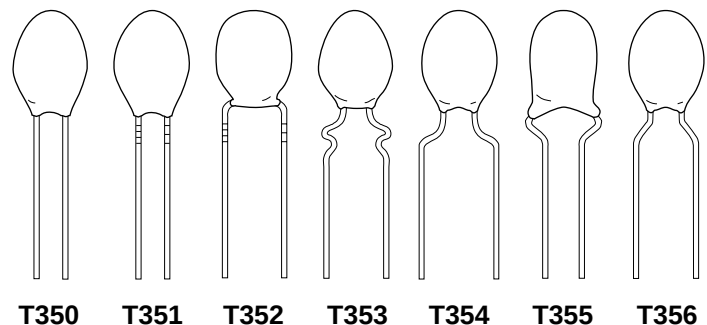
DIMENSIONS — INCHES (MILLIMETERS)

	All	T350	T351	T352	T353	T354	T355	T356
Case Size	D Max Diameter	H ⁽¹⁾ Max Height	H ⁽¹⁾ Max Height	H ⁽¹⁾ Max Height	H ⁽¹⁾ Max Height	H ⁽¹⁾ Max Height	H ⁽¹⁾ Max Height	H ⁽¹⁾ Max Height
A	.175 (4.5)	.280 (7.1)	.380 (9.6)	.400 (10.2)	.400 (10.2)	.340 (8.6)	.340 (8.6)	.340 (8.6)
B	.175 (4.5)	.300 (7.6)	.390 (9.9)	.410 (10.4)	.410 (10.4)	.350 (8.9)	.350 (8.9)	.350 (8.9)
C	.196 (5.0)	.330 (8.4)	.420 (10.7)	.440 (11.2)	.440 (11.2)	.380 (9.6)	.380 (9.6)	.380 (9.6)
D	.196 (5.0)	.340 (8.6)	.430 (10.9)	.450 (11.4)	.450 (11.4)	.390 (9.9)	.390 (9.9)	.390 (9.9)
E	.216 (5.5)	.350 (8.9)	.440 (11.2)	.460 (11.7)	.460 (11.7)	.400 (10.2)	.400 (10.2)	.400 (10.2)
F	.236 (6.0)	.390 (9.9)	.480 (12.2)	.500 (12.7)	.500 (12.7)	.440 (11.2)	.440 (11.2)	.440 (11.2)
G	.250 (6.3)	.400 (10.2)	.490 (12.4)	.510 (13.0)	.510 (13.0)	.450 (11.4)	.450 (11.4)	.450 (11.4)
H	.300 (7.6)	.400 (10.2)	.500 (12.7)	.520 (13.2)	.520 (13.2)	.470 (11.9)	.470 (11.9)	.470 (11.9)
J ⁽²⁾	.330 (8.4)	.500 (12.7)	Note 3	Note 3	.580 (14.7)	.550 (14.0)	Note 3	.550 (14.0)
K ⁽²⁾	.350 (8.9)	.530 (13.5)			.630 (16.0)	.610 (15.5)		.610 (15.5)
L ⁽²⁾	.350 (8.9)	.630 (16.0)			.730 (18.5)	.710 (18.1)		.710 (18.1)
M ⁽²⁾	.400 (10.2)	.670 (17.0)			.760 (19.3)	.740 (18.8)		.740 (18.8)

NOTES: (1) All "H" Dimensions are from Capacitor seating plane to top of Capacitor.
 (2) On T350 Series, case sizes A-H are supplied with .100" (2.54) lead spacing—case sizes J-M are supplied with .200" (5.08) lead spacing.
 (3) These case sizes are not available for T351, T352 & T355 capacitors.

LEAD CONFIGURATION & SPACING CHART

CASE	LEAD CONFIGURATION	SERIES						
		T350	T351	T352	T353	T354	T355	T356
A-H	.100	X	X					
	.125						X	
	.200			X	X			X
	.250					X		
	STRAIGHT LEAD	X						
	STAND OFF		X	X		X	X	X
J-M	SNAP-IN				X			
	.100		NOT AVAILABLE	NOT AVAILABLE			NOT AVAILABLE	
	.125							
	.200	X			X			X
	.250					X		
	STRAIGHT LEAD	X						
	STAND OFF					X		X
	SNAP-IN				X			

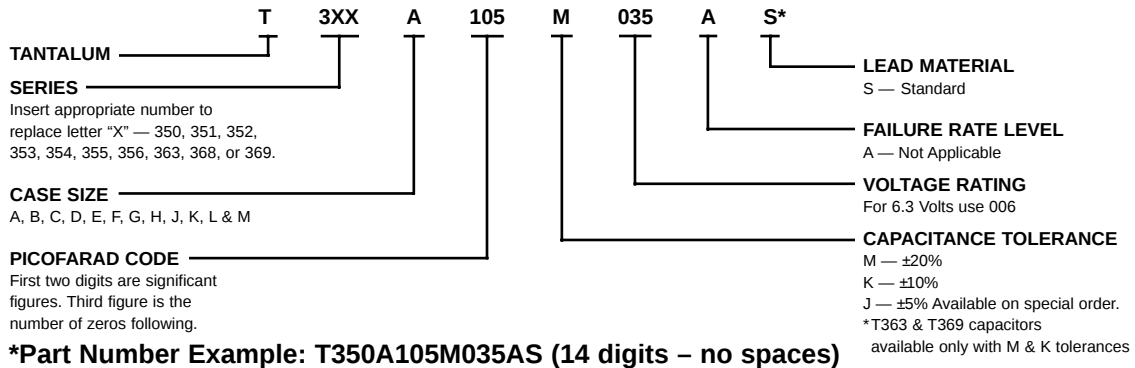


TANTALUM DIPPED / RADIAL - POLAR

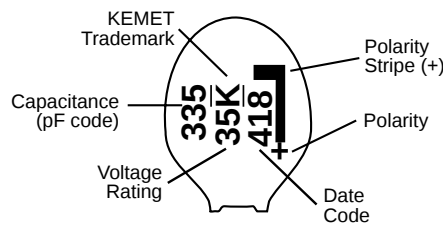
T350, T351, T352, T353, T354, T355 & T356 SERIES "ULTRADIP II"



T35X & T36X ORDERING INFORMATION



T35X & T36X MARKING INFORMATION



T35X RATINGS AND PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE $\mu\text{A}@25^\circ\text{C}$	MAX. DISSIPATION FACTOR %@25°C, 120Hz
3 VOLT RATING AT 85°C — 2 VOLT RATING AT 125°C				
4.7	A	T35(1)A475(3)003AS	0.5	5
5.6	A	T35(1)A565(3)003AS	0.5	5
6.8	A	T35(1)A685(3)003AS	0.5	5
8.2	A	T35(1)A825(3)003AS	0.5	6
10.0	A	T35(1)A106(3)003AS	0.5	6
12.0	B	T35(1)B126(3)003AS	0.5	6
15.0	B	T35(1)B156(3)003AS	0.5	6
18.0	C	T35(1)C186(3)003AS	0.5	6
22.0	C	T35(1)C226(3)003AS	0.5	6
27.0	D	T35(1)D276(3)003AS	0.6	6
33.0	D	T35(1)D336(3)003AS	0.8	6
39.0	E	T35(1)E396(3)003AS	0.9	6
47.0	E	T35(1)E476(3)003AS	1.1	6
56.0	F	T35(1)F566(3)003AS	1.3	6
68.0	F	T35(1)F686(3)003AS	1.6	6
82.0	G	T35(1)G826(3)003AS	2.0	8
100.0	G	T35(1)G107(3)003AS	2.4	8
120.0	H	T35(1)H127(3)003AS	2.9	8
150.0	H	T35(1)H157(3)003AS	3.6	8
180.0	J	T35(2)J187(3)003AS	4.3	8
220.0	J	T35(2)J227(3)003AS	5.3	8
270.0	K	T35(2)K277(3)003AS	6.5	8
330.0	K	T35(2)K337(3)003AS	7.9	8
390.0	L	T35(2)L397(3)003AS	9.4	9
470.0	L	T35(2)L477(3)003AS	10.0	9
560.0	M	T35(2)M567(3)003AS	10.0	9
680.0	M	T35(2)M687(3)003AS	10.0	9

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE $\mu\text{A}@25^\circ\text{C}$	MAX. DISSIPATION FACTOR %@25°C, 120Hz
6.3 VOLT RATING AT 85°C — 4 VOLT RATING AT 125°C				
3.3	A	T35(1)A335(3)006AS	0.5	5
3.9	A	T35(1)A395(3)006AS	0.5	5
4.7	A	T35(1)A475(3)006AS	0.5	5
5.6	A	T35(1)A565(3)006AS	0.5	5
6.8	A	T35(1)A685(3)006AS	0.5	5
8.2	B	T35(1)B825(3)006AS	0.5	6
10.0	B	T35(1)B106(3)006AS	0.5	6
12.0	C	T35(1)C126(3)006AS	0.6	6
15.0	C	T35(1)C156(3)006AS	0.7	6
18.0	D	T35(1)D186(3)006AS	0.9	6
22.0	D	T35(1)D226(3)006AS	1.1	6
27.0	E	T35(1)E276(3)006AS	1.3	6
33.0	E	T35(1)E336(3)006AS	1.6	6
39.0	F	T35(1)F396(3)006AS	1.9	6
47.0	F	T35(1)F476(3)006AS	2.3	6
56.0	G	T35(1)G566(3)006AS	2.7	6
68.0	G	T35(1)G686(3)006AS	3.3	6
82.0	H	T35(1)H826(3)006AS	3.9	8
100.0	H	T35(1)H107(3)006AS	4.8	8
120.0	J	T35(2)J127(3)006AS	5.8	8
150.0	J	T35(2)J157(3)006AS	7.2	8
180.0	K	T35(2)K187(3)006AS	8.6	8
220.0	K	T35(2)K227(3)006AS	10.0	8
270.0	L	T35(2)L277(3)006AS	10.0	8
330.0	L	T35(2)L337(3)006AS	10.0	8

(1) To complete KEMET Part Number, insert Series Designation as follows: "0" = T350, "1" = T351, "2" = T352, "3" = T353, "4" = T354, "5" = T355, "6" = T356.

(2) To complete KEMET Part Number, insert only Series Designation as follows: "0" = T350, "3" = T353, "4" = T354, "6" = T356.

(3) To complete KEMET Part Number, insert Capacitance Tolerance Symbol: "M" = $\pm 20\%$, "K" = $\pm 10\%$.

Bold Face print indicates popular values.

NOTE: Higher voltage and better capacitance tolerance product may be substituted for an order within the same case size at KEMET's option.



TANTALUM DIPPED / RADIAL — POLAR

T350, T351, T352, T353, T354, T355 & T356 SERIES “ULTRADIP II”

T35X

RATINGS AND PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C				
2.2	A	T35(1)A225(3)010AS	0.5	5
2.7	A	T35(1)A275(3)010AS	0.5	5
3.3	A	T35(1)A335(3)010AS	0.5	5
3.9	A	T35(1)A395(3)010AS	0.5	5
4.7	A	T35(1)A475(3)010AS	0.5	5
5.6	B	T35(1)B565(3)010AS	0.5	5
6.8	B	T35(1)B685(3)010AS	0.5	5
8.2	C	T35(1)C825(3)010AS	0.7	6
10.0	C	T35(1)C106(3)010AS	0.8	6
12.0	E	T35(1)E126(3)010AS	1.0	6
15.0	E	T35(1)E156(3)010AS	1.2	6
18.0	E	T35(1)E186(3)010AS	1.4	6
22.0	E	T35(1)E226(3)010AS	1.8	6
27.0	F	T35(1)F276(3)010AS	2.2	6
33.0	F	T35(1)F336(3)010AS	2.6	6
39.0	G	T35(1)G396(3)010AS	3.1	6
47.0	H	T35(1)H476(3)010AS	3.8	6
56.0	H	T35(1)H566(3)010AS	4.5	6
68.0	H	T35(1)H686(3)010AS	5.4	6
82.0	J	T35(2)J826(3)010AS	6.6	8
100.0	J	T35(2)J107(3)010AS	8.0	8
120.0	K	T35(2)K127(3)010AS	9.6	8
150.0	K	T35(2)K157(3)010AS	10.0	8
180.0	L	T35(2)L187(3)010AS	10.0	8
220.0	L	T35(2)L227(3)010AS	10.0	8
16 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C				
1.5	A	T35(1)A155(3)016AS	0.5	5
1.8	A	T35(1)A185(3)016AS	0.5	5
2.2	A	T35(1)A225(3)016AS	0.5	5
2.7	A	T35(1)A275(3)016AS	0.5	5
3.3	A	T35(1)A335(3)016AS	0.5	5
3.9	B	T35(1)B395(3)016AS	0.5	5
4.7	B	T35(1)B475(3)016AS	0.6	5
5.6	C	T35(1)C565(3)016AS	0.7	5
6.8	C	T35(1)C685(3)016AS	0.9	5
8.2	E	T35(1)E825(3)016AS	1.0	6
10.0	E	T35(1)E106(3)016AS	1.3	6
12.0	E	T35(1)E126(3)016AS	1.5	6
15.0	E	T35(1)E156(3)016AS	1.8	6
18.0	F	T35(1)F186(3)016AS	2.2	6
22.0	F	T35(1)F226(3)016AS	2.6	6
27.0	H	T35(1)H276(3)016AS	3.2	6
33.0	H	T35(1)H336(3)016AS	4.0	6
39.0	J	T35(2)J396(3)016AS	4.7	6
47.0	J	T35(2)J476(3)016AS	5.6	6
56.0	K	T35(2)K566(3)016AS	6.8	6
68.0	K	T35(2)K686(3)016AS	8.2	6
82.0	L	T35(2)L826(3)016AS	9.8	8
100.0	L	T35(2)L107(3)016AS	10.0	8
120.0	M	T35(2)M127(3)016AS	10.0	8
150.0	M	T35(2)M157(3)016AS	10.0	8

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
20 VOLT RATING AT 85°C — 13 VOLT RATING AT 125°C				
1.0	A	T35(1)A105(3)020AS	0.5	3
1.2	A	T35(1)A125(3)020AS	0.5	5
1.5	A	T35(1)A155(3)020AS	0.5	5
1.8	A	T35(1)A185(3)020AS	0.5	5
2.2	A	T35(1)A225(3)020AS	0.5	5
2.7	B	T35(1)B275(3)020AS	0.5	5
3.3	B	T35(1)B335(3)020AS	0.5	5
3.9	C	T35(1)C395(3)020AS	0.6	5
4.7	C	T35(1)C475(3)020AS	0.8	5
5.6	D	T35(1)D565(3)020AS	0.9	5
6.8	D	T35(1)D685(3)020AS	1.1	5
8.2	E	T35(1)E825(3)020AS	1.3	6
10.0	E	T35(1)E106(3)020AS	1.6	6
12.0	F	T35(1)F126(3)020AS	1.9	6
15.0	F	T35(1)F156(3)020AS	2.4	6
18.0	G	T35(1)G186(3)020AS	2.9	6
22.0	G	T35(1)G226(3)020AS	3.5	6
27.0	J	T35(2)J276(3)020AS	4.3	6
33.0	J	T35(2)J336(3)020AS	5.3	6
39.0	K	T35(2)K396(3)020AS	6.2	6
47.0	K	T35(2)K476(3)020AS	7.5	6
56.0	L	T35(2)L566(3)020AS	9.0	6
68.0	L	T35(2)L686(3)020AS	10.0	6
82.0	M	T35(2)M826(3)020AS	10.0	8
100.0	M	T35(2)M107(3)020AS	10.0	8
25 VOLT RATING AT 85°C — 16.5 VOLT RATING AT 125°C				
1.0	A	T35(1)A105(3)025AS	0.5	3
1.2	A	T35(1)A125(3)025AS	0.5	5
1.5	A	T35(1)A155(3)025AS	0.5	5
1.8	A	T35(1)A185(3)025AS	0.5	5
2.2	B	T35(1)B225(3)025AS	0.5	5
2.7	B	T35(1)B275(3)025AS	0.5	5
3.3	B	T35(1)B335(3)025AS	0.7	5
3.9	C	T35(1)C395(3)025AS	0.8	5
4.7	C	T35(1)C475(3)025AS	0.9	5
5.6	E	T35(1)E565(3)025AS	1.1	5
6.8	E	T35(1)E685(3)025AS	1.4	5
8.2	E	T35(1)E825(3)025AS	1.6	6
10.0	E	T35(1)E106(3)025AS	2.0	6
12.0	G	T35(1)G126(3)025AS	2.4	6
15.0	G	T35(1)G156(3)025AS	3.0	6
18.0	H	T35(1)H186(3)025AS	3.6	6
22.0	H	T35(1)H226(3)025AS	4.4	6
27.0	J	T35(2)J276(3)025AS	5.4	6
33.0	J	T35(2)J336(3)025AS	6.6	6
39.0	K	T35(2)K396(3)025AS	7.8	6
47.0	K	T35(2)K476(3)025AS	9.4	6
56.0	L	T35(2)L566(3)025AS	10.0	6
68.0	L	T35(2)L686(3)025AS	10.0	6

(1) To complete KEMET Part Number, insert Series Designation as follows: "0" = T350, "1" = T351, "2" = T352, "3" = T353, "4" = T354, "5" = T355, "6" = T356.

(2) To complete KEMET Part Number, insert only Series Designation as follows: "0" = T350, "3" = T353, "4" = T354, "6" = T356.

(3) To complete KEMET Part Number, insert Capacitance Tolerance Symbol: "M" = ±20%, "K" = ±10%.

Bold Face print indicates popular values.

NOTE: Higher voltage and better capacitance tolerance product may be substituted for an order within the same case size at KEMET's option.

TANTALUM DIPPED / RADIAL - POLAR

T350, T351, T352, T353, T354, T355 & T356 SERIES "ULTRADIP II"



T35X

RATINGS AND PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
35 VOLT RATING AT 85°C — 23 VOLT RATING AT 125°C				
0.10	A	T35(1)A104(3)035AS	0.5	3
0.12	A	T35(1)A124(3)035AS	0.5	3
0.15	A	T35(1)A154(3)035AS	0.5	3
0.18	A	T35(1)A184(3)035AS	0.5	3
0.22	A	T35(1)A224(3)035AS	0.5	3
0.27	A	T35(1)A274(3)035AS	0.5	3
0.33	A	T35(1)A334(3)035AS	0.5	3
0.39	A	T35(1)A394(3)035AS	0.5	3
0.47	A	T35(1)A474(3)035AS	0.5	3
0.56	A	T35(1)A564(3)035AS	0.5	3
0.68	A	T35(1)A684(3)035AS	0.5	3
0.82	A	T35(1)A824(3)035AS	0.5	3
1.0	A	T35(1)A105(3)035AS	0.5	3
1.2	B	T35(1)B125(3)035AS	0.5	5
1.5	B	T35(1)B155(3)035AS	0.5	5
1.8	C	T35(1)C185(3)035AS	0.5	5
2.2	C	T35(1)C225(3)035AS	0.6	5
2.7	D	T35(1)D275(3)035AS	0.7	5
3.3	D	T35(1)D335(3)035AS	0.9	5
3.9	E	T35(1)E395(3)035AS	1.0	5
4.7	E	T35(1)E475(3)035AS	1.3	5
5.6	F	T35(1)F565(3)035AS	1.6	5
6.8	F	T35(1)F685(3)035AS	1.9	5
8.2	G	T35(1)G825(3)035AS	2.3	6
10.0	G	T35(1)G106(3)035AS	2.8	6
12.0	J	T35(2)J126(3)035AS	3.4	6
15.0	J	T35(2)J156(3)035AS	4.2	6
18.0	K	T35(2)K186(3)035AS	5.0	6
22.0	K	T35(2)K226(3)035AS	6.2	6
27.0	L	T35(2)L276(3)035AS	7.6	6
33.0	L	T35(2)L336(3)035AS	9.2	6
39.0	M	T35(2)M396(3)035AS	10.0	6
47.0	M	T35(2)M476(3)035AS	10.0	6

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C				
0.10	A	T35(1)A104(3)050AS	0.5	3
0.12	A	T35(1)A124(3)050AS	0.5	3
0.15	A	T35(1)A154(3)050AS	0.5	3
0.18	A	T35(1)A184(3)050AS	0.5	3
0.22	A	T35(1)A224(3)050AS	0.5	3
0.27	A	T35(1)A274(3)050AS	0.5	3
0.33	A	T35(1)A334(3)050AS	0.5	3
0.39	B	T35(1)B394(3)050AS	0.5	3
0.47	B	T35(1)B474(3)050AS	0.5	3
0.56	B	T35(1)B564(3)050AS	0.5	3
0.68	B	T35(1)B684(3)050AS	0.5	3
0.82	B	T35(1)B824(3)050AS	0.5	3
1.0	B	T35(1)B105(3)050AS	0.5	3
1.2	D	T35(1)D125(3)050AS	0.5	5
1.5	E	T35(1)E155(3)050AS	0.6	5
1.8	E	T35(1)E185(3)050AS	0.7	5
2.2	E	T35(1)E225(3)050AS	0.9	5
2.7	F	T35(1)F275(3)050AS	1.1	5
3.3	F	T35(1)F335(3)050AS	1.3	5
3.9	G	T35(1)G395(3)050AS	1.6	5
4.7	G	T35(1)G475(3)050AS	1.9	5
5.6	H	T35(1)H565(3)050AS	2.2	5
6.8	J	T35(2)J685(3)050AS	2.7	5
8.2	J	T35(2)J825(3)050AS	3.3	6
10.0	K	T35(2)K106(3)050AS	4.0	6
12.0	K	T35(2)K126(3)050AS	4.8	6
15.0	L	T35(2)L156(3)050AS	6.0	6
18.0	L	T35(2)L186(3)050AS	7.2	6
22.0	M	T35(2)M226(3)050AS	8.8	6

(1) To complete KEMET Part Number, insert Series Designation as follows: "0" = T350, "1" = T351, "2" = T352, "3" = T353, "4" = T354, "5" = T355, "6" = T356.
(2) To complete KEMET Part Number, insert only Series Designation as follows: "0" = T350, "3" = T353, "4" = T354, "6" = T356.
(3) To complete KEMET Part Number, insert Capacitance Tolerance Symbol: "M" = ±20%, "K" = ±10%.

Bold Face print indicates popular values.

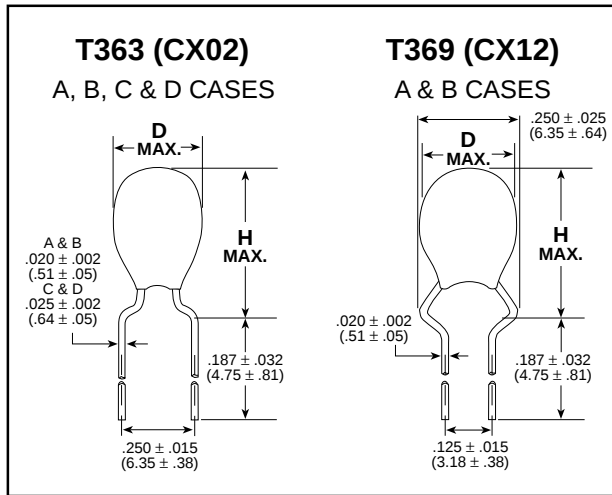
NOTE: Higher voltage and better capacitance tolerance product may be substituted for an order within the same case size at KEMET's option.

Product manufactured to the requirements of MIL-PRF-49137 satisfy all the performance characteristics of the UltraDip II. The performance characteristics meet or exceed the requirements of MIL-PRF-49137.

In addition to the standard process testing done on the UltraDip II, all product supplied to MIL-PRF-49137 is sampled on a lot by lot

basis for Group A and Group B inspection to insure compliance. Product supplied per MIL-PRF-49137 also receives an additional post process burn-in for at least two (2) hours under accelerated voltage stress in excess of 125% of DC rated voltage. This post process burn-in is equivalent to 200 hours under rated conditions.

CAPACITOR OUTLINE DRAWINGS

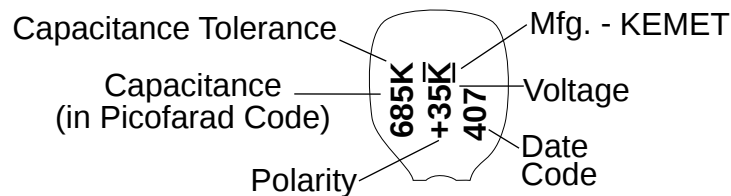


DIMENSIONS — INCHES & (MILLIMETERS)

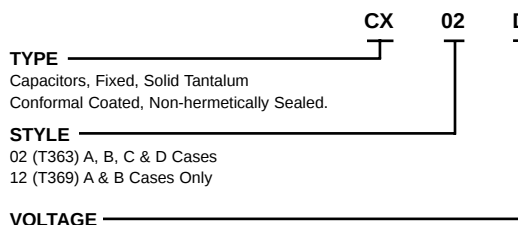
**T363 A-D CASE
T369 A&B CASE ONLY**

CASE SIZE	D MAX	H MAX
A	0.175 (4.45)	0.350 (8.89)
B	0.250 (6.35)	0.450 (11.43)
C	0.350 (8.89)	0.610 (15.49)
D	0.400 (10.16)	0.740 (18.80)

MIL-PRF-49137 MARKING INFORMATION



MIL-PRF-49137/2 ORDERING INFORMATION



Symbol	Rated (857C) Volts, dc	Surge (857C) Volts, dc
D	6	8
F	10	13
H	15	20
J	20	26
K	25	32
M	35	46
N	50	65

*For KEMET Ordering Information, see page 63.

CAPACITANCE TOLERANCE

Symbol	Capacitance Tolerance
	Percent ($\pm$)
K	10
M	20

CAPACITANCE IN PICORARAD CODE

The nominal capacitance value, expressed in picofarads (pF), is identified by a three-digit number; the first two digits represent significant figures and the last digit specifies the number of zeros to follow.

RATINGS & PART NUMBER REFERENCE

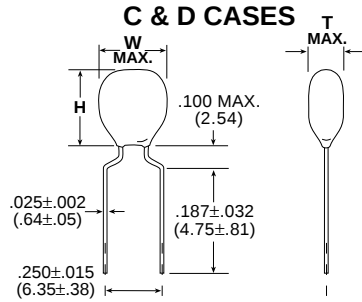
CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	T363, T369 KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz	CX02 (T363) MILITARY PART NUMBER	CX12 (T369) MILITARY PART NUMBER
6 VOLT RATING AT 85°C							
6.8	A	10, 20	T36(1)A685(2)006AS	0.5	6	CX02D685(2)	CX12D685(2)
47.0	B	10, 20	T36(1)B476(2)006AS	2.3	6	CX02D476(2)	CX12D476(2)
68.0	B	10, 20	T36(1)B686(2)006AS	3.3	6	CX02D686(2)	CX12D686(2)
150.0	C	10, 20	T363C157(2)006AS	7.2	8	CX02D157(2)	
330.0	D	10, 20	T363D337(2)006AS	10.0	8	CX02D337(2)	
10 VOLT RATING AT 85°C							
4.7	A	10, 20	T36(1)A475(2)010AS	0.5	5	CX02F475(2)	CX12F475(2)
33.0	B	10, 20	T36(1)B336(2)010AS	2.6	6	CX02F336(2)	CX12F336(2)
100.0	C	10, 20	T363C107(2)010AS	8.0	8	CX02F107(2)	
220.0	D	10, 20	T363D227(2)010AS	10.0	8	CX02F227(2)	
15 VOLT RATING AT 85°C							
3.3	A	10, 20	T36(1)A335(2)015AS	0.5	5	CX02H335(2)	CX12H335(2)
22.0	B	10, 20	T36(1)B226(2)015AS	2.6	6	CX02H226(2)	CX12H226(2)
68.0	C	10, 20	T363C686(2)015AS	8.2	6	CX02H686(2)	
150.0	D	10, 20	T363D157(2)015AS	10.0	8	CX02H157(2)	
20 VOLT RATING AT 85°C							
2.2	A	10, 20	T36(1)A225(2)020AS	0.5	5	CX02J225(2)	CX12J225(2)
15.0	B	10, 20	T36(1)B156(2)020AS	2.4	6	CX02J156(2)	CX12J156(2)
47.0	C	10, 20	T363C476(2)020AS	7.5	6	CX02J476(2)	
100.0	D	10, 20	T363D107(2)020AS	10.0	8	CX02J107(2)	
25 VOLT RATING AT 85°C							
1.5	A	10, 20	T36(1)A155(2)025AS	0.5	5	CX02K155(2)	CX12K155(2)
10.0	B	10, 20	T36(1)B106(2)025AS	2.0	6	CX02K106(2)	CX12K106(2)
33.0	C	10, 20	T363C336(2)025AS	6.6	6	CX02K336(2)	
68.0	D	10, 20	T363D686(2)025AS	10.0	6	CX02K686(2)	
35 VOLT RATING AT 85°C							
6.8	B	10, 20	T36(1)B685(2)035AS	1.9	5	CX02M685(2)	CX12M685(2)
22.0	C	10, 20	T363C226(2)035AS	6.2	6	CX02M226(2)	
33.0	D	10, 20	T363D336(2)035AS	9.2	6	CX02M336(2)	
47.0	D	10, 20	T363D476(2)035AS	10.0	6	CX02M476(2)	
50 VOLT RATING AT 85°C							
0.1	A	10, 20	T36(1)A104(2)050AS	0.5	3	CX02N104(2)	CX12N104(2)
0.15	A	10, 20	T36(1)A154(2)050AS	0.5	3	CX02N154(2)	CX12N154(2)
0.22	A	10, 20	T36(1)A224(2)050AS	0.5	3	CX02N224(2)	CX12N224(2)
0.33	A	10, 20	T36(1)A334(2)050AS	0.5	3	CX02N334(2)	CX12N334(2)
0.47	A	10, 20	T36(1)A474(2)050AS	0.5	3	CX02N474(2)	CX12N474(2)
0.68	A	10, 20	T36(1)A684(2)050AS	0.5	3	CX02N684(2)	CX12N684(2)
1.0	A	10, 20	T36(1)A105(2)050AS	0.5	3	CX02N105(2)	CX12N105(2)
1.5	B	10, 20	T36(1)B155(2)050AS	0.6	5	CX02N155(2)	CX12N155(2)
2.2	B	10, 20	T36(1)B225(2)050AS	0.9	5	CX02N225(2)	CX12N225(2)
3.3	B	10, 20	T36(1)B335(2)050AS	1.3	5	CX02N335(2)	CX12N335(2)
4.7	B	10, 20	T36(1)B475(2)050AS	1.9	5	CX02N475(2)	CX12N475(2)
6.8	C	10, 20	T363C685(2)050AS	2.7	5	CX02N685(2)	
10.0	C	10, 20	T363C106(2)050AS	4.0	6	CX02N106(2)	
15.0	C	10, 20	T363C156(2)050AS	6.0	6	CX02N156(2)	
22.0	D	10, 20	T363D226(2)050AS	8.8	6	CX02N226(2)	

(1) To complete KEMET part number, insert Series Designation as follows: 3 - T363 (CX02); 9 - T369 (CX12)

(2) To complete KEMET or military part number, insert Capacitance Tolerance Symbol as follows:

M - ±20%, K - ±10%

T368 CAPACITOR OUTLINE DRAWING



T368 DIMENSIONS — INCHES + (MILLIMETERS)

CASE SIZE	TMAX	WMAX	HMAX
C	0.250 (6.35)	0.40 (10.16)	0.42 (10.67)
D	0.250 (6.35)	0.460 (11.68)	0.52 (13.20)

T368 RATINGS AND PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
6 VOLT RATING AT 85°C				
82.0	C	T368C826(1)006AS	3.9	8
100.0	C	T368C107(1)006AS	4.8	8
120.0	C	T368C127(1)006AS	5.8	8
150.0	C	T368C157(1)006AS	7.2	8
180.0	D	T368D187(1)006AS	8.6	8
220.0	D	T368D227(1)006AS	10.0	8
270.0	D	T368D277(1)006AS	10.0	8
330.0	D	T368D337(1)006AS	10.0	8
10 VOLT RATING AT 85°C				
47.0	C	T368C476(1)010AS	3.8	6
56.0	C	T368C566(1)010AS	4.4	6
68.0	C	T368C686(1)010AS	5.4	6
82.0	C	T368C826(1)010AS	6.5	8
100.0	C	T368C107(1)010AS	8.0	8
120.0	D	T368D127(1)010AS	9.6	8
150.0	D	T368D157(1)010AS	10.0	8
180.0	D	T368D187(1)010AS	10.0	8
220.0	D	T368D227(1)010AS	10.0	8
15 VOLT RATING AT 85°C				
27.0	C	T368C276(1)015AS	3.2	6
33.0	C	T368C336(1)015AS	4.0	6
39.0	C	T368C396(1)015AS	4.7	6
47.0	C	T368C476(1)015AS	5.6	6
56.0	C	T368C566(1)015AS	6.8	6
68.0	C	T368C686(1)015AS	8.2	6
82.0	D	T368D826(1)015AS	9.8	8
100.0	D	T368D107(1)015AS	10.0	8
120.0	D	T368D127(1)015AS	10.0	8
150.0	D	T368D157(1)015AS	10.0	8
20 VOLT RATING AT 85°C				
18.0	C	T368C186(1)020AS	2.8	6
22.0	C	T368C226(1)020AS	3.5	6
27.0	C	T368C276(1)020AS	4.3	6
33.0	C	T368C336(1)020AS	5.3	6
39.0	C	T368C396(1)020AS	6.2	6
47.0	C	T368C476(1)020AS	7.5	6
56.0	D	T368D566(1)020AS	8.9	6
68.0	D	T368D686(1)020AS	10.0	6
82.0	D	T368D826(1)020AS	10.0	8
100.0	D	T368D107(1)020AS	10.0	8

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
25 VOLT RATING AT 85°C				
12.0	C	T368C126(1)025AS	2.4	6
15.0	C	T368C156(1)025AS	3.0	6
18.0	C	T368C186(1)025AS	3.6	6
22.0	C	T368C226(1)025AS	4.4	6
27.0	C	T368C276(1)025AS	5.4	6
33.0	C	T368C336(1)025AS	6.6	6
39.0	D	T368D396(1)025AS	7.8	6
47.0	D	T368D476(1)025AS	9.4	6
56.0	D	T368D566(1)025AS	10.0	6
68.0	D	T368D686(1)025AS	10.0	6
35 VOLT RATING AT 85°C				
8.2	C	T368C825(1)035AS	2.3	6
10.0	C	T368C106(1)035AS	2.8	6
12.0	C	T368C126(1)035AS	3.3	6
15.0	C	T368C156(1)035AS	4.2	6
18.0	C	T368C186(1)035AS	5.0	6
22.0	C	T368C226(1)035AS	6.2	6
27.0	D	T368D276(1)035AS	7.5	6
33.0	D	T368D336(1)035AS	9.2	6
39.0	D	T368D396(1)035AS	10.0	6
47.0	D	T368D476(1)035AS	10.0	6
50 VOLT RATING AT 85°C				
5.6	C	T368C565(1)050AS	2.2	5
6.8	C	T368C685(1)050AS	2.7	5
8.2	C	T368C825(1)050AS	3.2	6
10.0	C	T368C106(1)050AS	4.0	6
12.0	C	T368C126(1)050AS	4.8	6
15.0	C	T368C156(1)050AS	6.0	6
18.0	D	T368D186(1)050AS	7.2	6
22.0	D	T368D226(1)050AS	8.8	6

(1) To complete KEMET part number, insert capacitance tolerance K— ±10%, M— ±20%, or J— ±5% (Available on special order).

* For Marking Information refer to page 63.

* For Ordering Information refer to page 63.

TANTALUM DIPPED / 3 LEADED

T396 & T398 SERIES "ULTRADIP III"



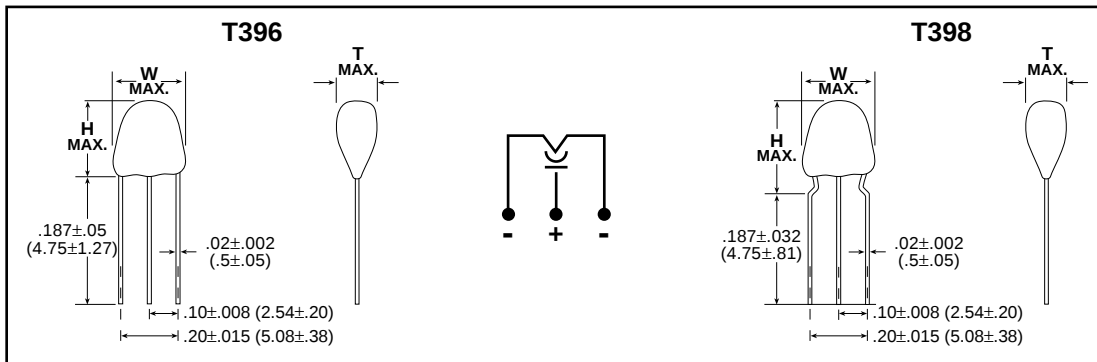
KEMET UltraDip III Capacitors offer the advantages of solid tantalum construction and a "fail-safe" insertion mechanism. The three-leaded design (the anode is in the center) enables operators to insert the capacitors into printed circuit boards correctly without having to visually determine polarity. This timesaving device also eliminates board damage that may result from incorrect insertion.

The UltraDip III Series features a capacitance range of 0.1 to 680 μ F at 3 to 50 VDC. These miniature dipped solid tantalum capacitors are encased in a tough plastic barrier coating that maintains the pre-

cise lead wire spacing within ± 0.015 inch. The gold color epoxy permits laser markings with outstanding permanency and legibility. All case sizes are printed with capacitance, voltage and vendor I.D.

The UltraDip III Series from KEMET Capacitors exhibit low DCL, ESR and Impedance and have excellent temperature stability. These capacitors may be ordered with precut leads (see drawing for lengths) or in KEMET Capacitor ARIS packaging (leads taped and on reels) for high speed automatic insertion equipment.

CAPACITOR OUTLINE DRAWING

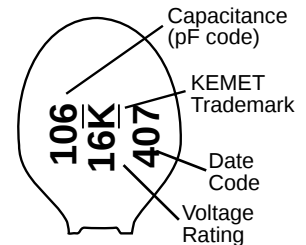


DIMENSIONS—INCHES & (MILLIMETERS)

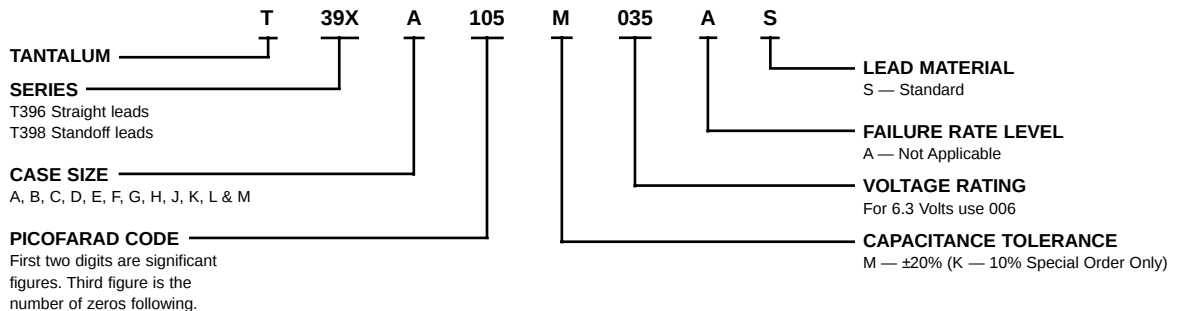
Series	Case Size	Both		T396	T398
		W Width	T Thickness	H* Height	H* Height
T396/T398	A	.280 (7.1)	.190 (4.8)	.310 (7.9)	.355 (9.0)
T396/T398	B	.280 (7.1)	.190 (4.8)	.320 (8.1)	.365 (9.3)
T396/T398	C	.280 (7.1)	.200 (5.1)	.360 (9.1)	.390 (9.9)
T396/T398	D	.280 (7.1)	.200 (5.1)	.370 (9.4)	.390 (9.9)
T396/T398	E	.280 (7.1)	.230 (5.8)	.380 (9.7)	.415 (10.5)
T396/T398	F	.280 (7.1)	.240 (6.1)	.410 (10.4)	.430 (10.9)
T396/T398	G	.280 (7.1)	.250 (6.3)	.420 (10.7)	.440 (11.2)
T396/T398	H	.280 (7.1)	.270 (6.9)	.420 (10.7)	.440 (11.2)
T396/T398	J	.300 (7.6)	.300 (7.6)	.460 (11.7)	.480 (12.2)
T396/T398	K	.340 (8.6)	.340 (8.6)	.500 (12.7)	.500 (12.7)
T396/T398	L	.340 (8.6)	.340 (8.6)	.560 (14.2)	.580 (14.7)
T396/T398	M	.360 (9.1)	.360 (9.1)	.620 (15.7)	.620 (15.7)

*NOTE: "H" dimensions are from seating plane to top of capacitor.

CAPACITOR MARKING



ORDERING INFORMATION





TANTALUM DIPPED / 3 LEADED —POLAR

T396 & T398 SERIES “ULTRADIP III”

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
3 VOLT RATING AT 85°C — 2 VOLT RATING AT 125°C				
4.7	A	T39(1)A475(2)003AS	0.5	5
6.8	A	T39(1)A685(2)003AS	0.5	5
10.0	A	T39(1)A106(2)003AS	0.5	6
15.0	B	T39(1)B156(2)003AS	0.5	6
22.0	C	T39(1)C226(2)003AS	0.5	6
33.0	D	T39(1)D336(2)003AS	0.8	6
47.0	E	T39(1)E476(2)003AS	1.1	6
68.0	F	T39(1)F686(2)003AS	1.6	6
100.0	G	T39(1)G107(2)003AS	2.4	8
150.0	H	T39(1)H157(2)003AS	3.6	8
220.0	J	T39(1)J227(2)003AS	5.3	8
330.0	K	T39(1)K337(2)003AS	7.9	8
470.0	L	T39(1)L477(2)003AS	10.0	9
680.0	M	T39(1)M687(2)003AS	10.0	9
10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C				
2.2	A	T39(1)A225(2)010AS	0.5	5
3.3	A	T39(1)A335(2)010AS	0.5	5
4.7	A	T39(1)A475(2)010AS	0.5	5
6.8	B	T39(1)B685(2)010AS	0.5	5
10.0	C	T39(1)C106(2)010AS	0.8	6
15.0	E	T39(1)E156(2)010AS	1.2	6
22.0	E	T39(1)E226(2)010AS	1.8	6
33.0	F	T39(1)F336(2)010AS	2.6	6
47.0	H	T39(1)H476(2)010AS	3.8	6
68.0	H	T39(1)H686(2)010AS	5.4	6
100.0	J	T39(1)J107(2)010AS	8.0	8
150.0	K	T39(1)K157(2)010AS	10.0	8
220.0	I	T39(1)L227(2)010AS	10.0	8
20 VOLT RATING AT 85°C — 13 VOLT RATING AT 125°C				
1.0	A	T39(1)A105(2)020AS	0.5	3
1.5	A	T39(1)A155(2)020AS	0.5	5
2.2	A	T39(1)A225(2)020AS	0.5	5
3.3	B	T39(1)B335(2)020AS	0.5	5
4.7	C	T39(1)C475(2)020AS	0.8	5
6.8	D	T39(1)D685(2)020AS	1.1	5
10.0	E	T39(1)E106(2)020AS	1.6	6
15.0	F	T39(1)F156(2)020AS	2.4	6
22.0	G	T39(1)G226(2)020AS	3.5	6
33.0	J	T39(1)J336(2)020AS	5.3	6
47.0	K	T39(1)K476(2)020AS	7.5	6
68.0	L	T39(1)L686(2)020AS	10.0	6
100.0	M	T39(1)M107(2)020AS	10.0	8
35 VOLT RATING AT 85°C — 23 VOLT RATING AT 125°C				
0.10	A	T39(1)A104(2)035AS	0.5	3
0.15	A	T39(1)A154(2)035AS	0.5	3
0.22	A	T39(1)A224(2)035AS	0.5	3
0.33	A	T39(1)A334(2)035AS	0.5	3
0.47	A	T39(1)A474(2)035AS	0.5	3
0.68	A	T39(1)A684(2)035AS	0.5	3
1.0	A	T39(1)A105(2)035AS	0.5	3
1.5	B	T39(1)B155(2)035AS	0.5	5
2.2	C	T39(1)C225(2)035AS	0.6	5
3.3	D	T39(1)D335(2)035AS	0.9	5
4.7	E	T39(1)E475(2)035AS	1.3	5
6.8	F	T39(1)F685(2)035AS	1.9	5
10.0	G	T39(1)G106(2)035AS	2.8	6
15.0	J	T39(1)J156(2)035AS	4.2	6
22.0	K	T39(1)K226(2)035AS	6.2	6
33.0	L	T39(1)L336(2)035AS	9.2	6
47.0	M	T39(1)M476(2)035AS	10.0	6

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120Hz
6.3 VOLT RATING AT 85°C — 4 VOLT RATING AT 125°C				
3.3	A	T39(1)A335(2)006AS	0.5	5
4.7	A	T39(1)A475(2)006AS	0.5	5
6.8	A	T39(1)A685(2)006AS	0.5	5
10.0	B	T39(1)B106(2)006AS	0.5	6
15.0	C	T39(1)C156(2)006AS	0.7	6
22.0	D	T39(1)D226(2)006AS	1.1	6
33.0	E	T39(1)E336(2)006AS	1.6	6
47.0	F	T39(1)F476(2)006AS	2.3	6
68.0	G	T39(1)G686(2)006AS	3.3	6
100.0	H	T39(1)H107(2)006AS	4.8	8
150.0	J	T39(1)J157(2)006AS	7.2	8
220.0	K	T39(1)K227(2)006AS	10.0	8
330.0	L	T39(1)L337(2)006AS	10.0	8
16 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C				
1.5	A	T39(1)A155(2)016AS	0.5	5
2.2	A	T39(1)A225(2)016AS	0.5	5
3.3	A	T39(1)A335(2)016AS	0.5	5
4.7	B	T39(1)B475(2)016AS	0.6	5
6.8	C	T39(1)C685(2)016AS	0.9	5
10.0	E	T39(1)E106(2)016AS	1.3	6
15.0	E	T39(1)E156(2)016AS	1.8	6
22.0	F	T39(1)F226(2)016AS	2.6	6
33.0	H	T39(1)H336(2)016AS	4.0	6
47.0	J	T39(1)J476(2)016AS	5.6	6
68.0	K	T39(1)K686(2)016AS	8.2	6
100.0	L	T39(1)L107(2)016AS	10.0	8
150.0	M	T39(1)M157(2)016AS	10.0	8
25 VOLT RATING AT 85°C — 16.5 VOLT RATING AT 125°C				
1.0	A	T39(1)A105(2)025AS	0.5	3
1.5	A	T39(1)A155(2)025AS	0.5	5
2.2	B	T39(1)B225(2)025AS	0.5	5
3.3	B	T39(1)B335(2)025AS	0.7	5
4.7	C	T39(1)C475(2)025AS	0.9	5
6.8	E	T39(1)E685(2)025AS	1.4	5
10.0	E	T39(1)E106(2)025AS	2.0	6
15.0	G	T39(1)G156(2)025AS	3.0	6
22.0	H	T39(1)H226(2)025AS	4.4	6
33.0	J	T39(1)J336(2)025AS	6.6	6
47.0	K	T39(1)K476(2)025AS	9.4	6
68.0	L	T39(1)L686(2)025AS	10.0	6
50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C				
0.10	A	T39(1)A104(2)050AS	0.5	3
0.15	A	T39(1)A154(2)050AS	0.5	3
0.22	A	T39(1)A224(2)050AS	0.5	3
0.33	A	T39(1)A334(2)050AS	0.5	3
0.47	B	T39(1)B474(2)050AS	0.5	3
0.68	B	T39(1)B684(2)050AS	0.5	3
1.0	B	T39(1)B105(2)050AS	0.5	3
1.5	E	T39(1)E155(2)050AS	0.6	5
2.2	E	T39(1)E225(2)050AS	0.9	5
3.3	F	T39(1)F335(2)050AS	1.3	5
4.7	G	T39(1)G475(2)050AS	1.9	5
6.8	J	T39(1)J685(2)050AS	2.7	5
10.0	K	T39(1)K106(2)050AS	4.0	6
15.0	L	T39(1)L156(2)050AS	6.0	6
22.0	M	T39(1)M226(2)050AS	8.8	6

(1) To complete KEMET Part Number, insert Series Designation as follows: "6" = T396, "8" = T398.

(2) To complete KEMET Part Number, insert Capacitance Tolerance Symbol as follows: "M" = ±20%, "K" = ±10%.

NOTE: Higher voltage/higher tolerance products may be shipped, at KEMET's option, within the same case size.