



TANTALUM MOLDED / AXIAL — MIL-PRF-49137/1&5

T322 & T323 (CX01 & CX05) SERIES

The KEMET T322 AND T323 (CX01 & CX05) Series offers a complete line of extended range molded solid tantalum capacitors designed specifically for high speed automatic insertion applications. These capacitors offer an extremely high capacitance-to-volume ratio while still maintaining excellent performance characteristics.

Supplied in six axial lead tubular case sizes, these capacitors are ideally suited for use in printed wiring boards and all applications requiring a high degree of packaging density and can be supplied in bulk packaging or lead-taped on reels.

The T322/T323 Series dimensions and tight lead wire-to-body concentricity permit installation by the same automatic insertion equipment used for diodes and resistors. Available in working voltages of

2, 4, 6, 10, 15, 20, 25, 35, and 50 volts. Operating temperature range -55°C to +85°C at full rated voltage and with $\frac{2}{3}$ 85°C rated voltage at 125°C.

The gold color epoxy utilized permits laser marking with outstanding permanency and legibility.

T323 Series capacitors are qualified under MIL-PRF-49137/1 & 5 as Military Style CX01 & CX05.

Typical applications include decoupling, blocking, bypassing and filtering in commercial computers, data processing, communications, and other electronic equipment. The low ESR/impedance at high frequencies offered by this capacitor is especially suitable for decoupling required by high speed computers.

PERFORMANCE CHARACTERISTICS

- **CAPACITANCE/VOLTAGE RANGE:**
0.1-330 μ F, 2-50 Volts.
- **CAPACITANCE TOLERANCE:** Available in standard EIA nominal values with $\pm 20\%$, $\pm 10\%$ and $\pm 5\%$ tolerance.
- **DISSIPATION FACTOR:** Maximum DF limits are shown in corresponding series part number listings on pages 44-48. See Application Notes Section, page 76 for additional description.
- **DC LEAKAGE CURRENT:** Each corresponding part number table lists maximum leakage current for each capacitor on pages 44 through 48. See Application Notes Section, page 76 for additional description.
- **RATED VOLTAGE; WORKING VOLTAGE; SURGE VOLTAGE; REVERSE VOLTAGE:** See Application Notes Section, page 76 & 77 for description.
- **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 79.

Case Size	Power Dissipation (max.) @ 25°C (watts)
A	.060
B	.070
C	.080
D	.090
E	.100
F	.110

Maximum Power Dissipation Capability @ 25°C

- **IMPEDANCE and ESR:** See Application Notes Section, pages 77 & 78 for description. Reference ESR values are shown in adjoining column, this page.
- **ENVIRONMENTAL CONSIDERATIONS:**
 - Shock Test: MIL-STD-202, Method 213.
 - Thermal Shock, MIL-STD-202, Method 107.
 - Moisture Resistance: MIL-STD-202, Method 106.
 - Solderability: MIL-STD-202, Method 208.

T322 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 T322 Series product.)

Cap. μ F	6 Volt	10 Volt	15 Volt	20 Volt	25 Volt	35 Volt	50 Volt
0.10						26.0	26.0
0.12						26.0	26.0
0.15						21.0	21.0
0.18						21.0	21.0
0.22						17.0	17.0
0.27						17.0	17.0
0.33						15.0	15.0
0.39						15.0	15.0
0.47					16.0	13.0	13.0
0.56					14.0	13.0	13.0
0.68					12.0	10.0	10.0
0.82					12.0	10.0	10.0
1.00				10.0	10.0	8.0	8.0
1.20				10.0	10.0	8.0	8.0
1.50			10.0	9.0	8.0	6.0	5.0
1.80			10.0	9.0	8.0	6.0	5.0
2.20		13.0	8.0	7.0	6.0	5.0	3.5
2.70		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
3.90	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
5.60	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
8.20	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
12.0	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
18.0	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
27.0	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	
39.0	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	
56.0	2.0	1.7	1.3	1.2	1.0		
68.0	1.8	1.3	1.0	0.9	0.8		
82.0	1.8	1.3	1.0	0.9			
100.0	1.6	1.0	0.8	0.6			
120.0	1.6	1.0	0.8				
150.0	0.9	0.8	0.6				
180.0	0.9	0.8					
220.0	0.9	0.6					
270.0	0.9						
330.0	0.7						

For additional Environmental Test Information see pages 80, 81 and 82.

- **LEAD MATERIAL:** Solder coated steel core with copper ply per MIL-STD-1276.
- **LEAD TAPE and REEL:** Reeling per specification RS-296. See pages 71 and 73 for additional information.

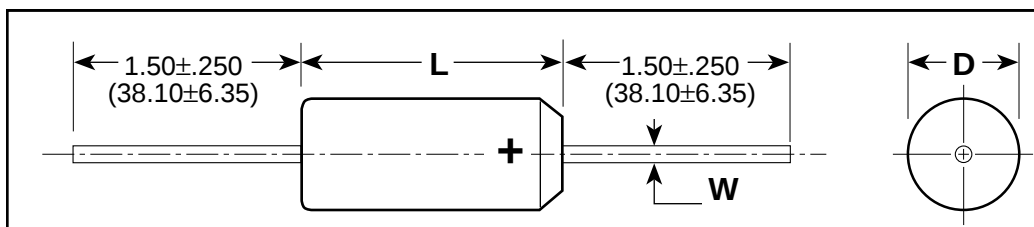
TANTALUM MOLDED / AXIAL — MIL-PRF-49137/1 & 5

T322 & T323 (CX01 & CX05) SERIES



Effective September 30, 2005, the KEMET T322 Series is RoHS compliant.

CAPACITOR OUTLINE DRAWINGS



DIMENSIONS — INCHES & (MILLIMETERS)

CASE SIZE	D (MAX)	L (MAX)	W
A	.095 (2.41)	.260 (6.6)	.020 (.51)
B	.110 (2.79)	.290 (7.37)	.020 (.51)
C	.180 (4.57)	.345 (8.76)	.020 (.51)
D	.180 (4.57)	.420 (10.67)	.020 (.51)
E	.280 (7.11)	.530 (13.46)	.025 (.64)
F	.300 (7.62)	.710 (18.03)	.025 (.64)

T322 & T323 ORDERING INFORMATION

TANTALUM — **T** **32X** **A** **474** **M** **035** **A** **S** — **C***

SERIES — Sub-Miniature, Molded, Polar, Solid Tantalum, Insert appropriate number to replace letter "X" — 322 or 323 (CX01, CX05).

CASE SIZE — A, B, C, D, E, or F

CAPACITANCE IN PICOFARADS — First two digits are significant figures. Third digit is number of zeros following.

SPECIFICATION (when necessary) — Reeling Per EIA Specification RS-296

LEAD MATERIAL — S — Standard, T — 100% Tin

FAILURE RATE LEVEL — A — Not Applicable

VOLTAGE RATING

CAPACITANCE TOLERANCE — *M — ±20%, *K — ±10%, *J — ±5%

*Part Number Example: T322A474M035AS (14 digits – no spaces)

* M & K only tolerances available for T323 Series.

MIL-PRF-49137/5 MILITARY ORDERING INFORMATION

TYPE — **CX** **05** **D** **225** **K**

Capacitor, Fixed, Solid Tantalum, Molded, Non-hermetically Sealed

STYLE — 01, 05 (T323) A, B, C, and D

VOLTAGE

Symbol	Rated (85°C) Volts, DC	Surge (85°C) Volts, DC
D	6	8.0
F	10	13.0
H	15	20.0
J	20	26.0
K	25	32.0
M	35	46.0
N	50	65.0

CAPACITANCE TOLERANCE

Symbol	Capacitance Tolerance Percent (±)
K	10
M	20

CAPACITANCE TOLERANCE — 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.

CAPACITOR MARKING

105M	Capacitance Value (pF), Capacitance Tolerance
+25 K	Polarity, Voltage, KEMET
0324	Date Code (Year, Week)

T322/T323 Tantalum Molded / Axial



TANTALUM MOLDED / AXIAL — MIL-PRF-49137/1 & 5

T322 & T323 (CX01 & CX05) SERIES

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T322 SERIES			CX01 & CX05 CAPACITORS PER MIL-PRF-49137/1 & 5	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120 HZ	MILITARY PART NUMBER	KEMET PART NUMBER
2 VOLT RATING AT 85°C — 1.3 VOLT RATING AT 125°C							
6.8 8.2 10.0	A A A	5,10,20 5,10,20 5,10,20	T322A685(1)002AS T322A825(1)002AS T322A106(1)002AS	0.5 0.5 0.5	10 10 10		
12.0 15.0 18.0 22.0 27.0 33.0	B B B B B B	5,10,20 5,10,20 5,10,20 5,10,20 5,10,20 5,10,20	T322B126(1)002AS T322B156(1)002AS T322B186(1)002AS T322B226(1)002AS T322B276(1)002AS T322B336(1)002AS	0.5 0.5 0.5 0.5 0.5 0.5	10 10 10 10 10 10		
39.0 47.0 56.0 68.0	C C C C	5,10,20 5,10,20 5,10,20 5,10,20	T322C396(1)002AS T322C476(1)002AS T322C566(1)002AS T322C686(1)002AS	0.6 0.8 0.9 1.1	10 10 10 10		
4 VOLT RATING AT 85°C — 2.7 VOLT RATING AT 125°C							
4.7 5.6 6.8	A A A	5,10,20 5,10,20 5,10,20	T322A475(1)004AS T322A565(1)004AS T322A685(1)004AS	0.5 0.5 0.5	8 8 8		
8.2 10.0 12.0 15.0 18.0 22.0	B B B B B B	5,10,20 5,10,20 5,10,20 5,10,20 5,10,20 5,10,20	T322B825(1)004AS T322B106(1)004AS T322B126(1)004AS T322B156(1)004AS T322B186(1)004AS T322B226(1)004AS	0.5 0.5 0.5 0.5 0.6 0.7	8 8 8 8 8 8		
27.0 33.0 39.0 47.0	C C C C	5,10,20 5,10,20 5,10,20 5,10,20	T322C276(1)004AS T322C336(1)004AS T322C396(1)004AS T322C476(1)004AS	0.9 1.1 1.2 1.5	8 8 8 8		
56.0 68.0	D D	5,10,20 5,10,20	T322D566(1)004AS T322D686(1)004AS	1.8 2.2	8 8		
6 VOLT RATING AT 85°C — 4 VOLT RATING AT 125°C							
3.3 3.9 4.7 4.7 4.7	A A A A A	5,10,20 5,10,20 5 10 20	T322A335(1)006AS T322A395(1)006AS T322A475J006AS T322A475K006AS T322A475M006AS	0.5 0.5 0.5 0.5 0.5	4 4 4 4 4	CX05D475K CX05D475M	T323A475K006AS T323A475M006AS
5.6 5.6 5.6 6.8 6.8 6.8 8.2 8.2 8.2 10.0 10.0 10.0 12.0 12.0 12.0 15.0 15.0 15.0	B B B B B B B B B B B B B B B B B	5 10 20 5 10 20 5 10 20 5 10 20 5 10 20 5 10 20	T322B565J006AS T322B565K006AS T322B565M006AS T322B685J006AS T322B685K006AS T322B685M006AS T322B825J006AS T322B825K006AS T322B825M006AS T322B106J006AS T322B106K006AS T322B106M006AS T322B126J006AS T322B126K006AS T322B126M006AS T322B156J006AS T322B156K006AS T322B156M006AS	0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.6 0.6 0.6 0.7 0.7 0.7	4 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	CX01D565K CX01D565M CX01D685K CX01D685M CX01D825K CX01D825M CX01D106K CX01D106M CX01D126K CX01D126M CX05D156K CX05D156M	T323B565K 006AS T323B565M006AS T323B685K006AS T323B685M006AS T323B825K 006AS T323B825M006AS T323B106K006AS T323B106M006AS T323B126K 006AS T323B126M006AS T323B156K006AS T323B156M006AS
18.0 22.0 27.0 33.0 33.0 33.0	C C C C C C	5,10,20 5,10,20 5,10,20 5 10 20	T322C186(1)006AS T322C226(1)006AS T322C276(1)006AS T322C336J006AS T322C336K006AS T322C336M006AS	0.9 1.1 1.3 1.5 1.5 1.5	6 6 6 6 6 6	CX05D336K CX05D336M	T323C336K006AS T323C336M006AS
39.0 47.0 47.0 47.0 56.0 68.0	D D D D D D	5,10,20 5 10 20 5,10,20 5,10,20	T322D396(1)006AS T322D476J006AS T322D476K006AS T322D476M006AS T322D566(1)006AS T322D686(1)006AS	1.9 2.3 2.3 2.3 2.7 3.3	6 6 6 6 6 6	CX05D476K CX05D476M	T323D476K006AS T323D476M006AS

(1) To complete KEMET Part Number, insert Capacitance Tolerance Symbol as follows: M — ±20%, K — ±10%, J — ±5%

Bold Face lines indicate preferred part types and values.

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T322 SERIES			CX01 & CX05 CAPACITORS PER MIL-PRF-49137/1 & 5	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120 HZ	MILITARY PART NUMBER	KEMET PART NUMBER
6 VOLT RATING AT 85°C — 4 VOLT RATING AT 125°C (Cont'd)							
82.0	E	5,10,20	T322E826(1)006AS	3.9	8		
100.0	E	5,10,20	T322E107(1)006AS	4.8	8		
120.0	E	5,10,20	T322E127(1)006AS	5.0	8		
150.0	E	5,10,20	T322E157(1)006AS	5.0	8		
180.0	E	5,10,20	T322E187(1)006AS	8.6	8		
220.0	E	5,10,20	T322E227(1)006AS	10.0	8		
270.0	F	5,10,20	T322F277(1)006AS	10.0	8		
330.0	F	5,10,20	T322F337(1)006AS	10.0	8		
10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C							
2.2	A	5,10,20	T322A225(1)010AS	0.5	4		
2.7	A	5,10,20	T322A275(1)010AS	0.5	4		
3.3	A	5	T322A335J010AS	0.5	4		
3.3	A	10	T322A335K010AS	0.5	4	CX05F335K	T323A335K010AS
3.3	A	20	T322A335M010AS	0.5	4	CX05F335M	T323A335M010AS
3.9	B	5,10,20	T322B395(1)010AS	0.5	4		
4.7	B	5,10,20	T322B475(1)010AS	0.5	4		
5.6	B	5,10,20	T322B565(1)010AS	0.5	4		
6.8	B	5,10,20	T322B685(1)010AS	0.5	6		
8.2	B	5,10,20	T322B825(1)010AS	0.7	6		
10.0	B	5	T322B106J010AS	0.8	6		
10.0	B	10	T322B106K010AS	0.8	6	CX05F106K	T323B106K010AS
10.0	B	20	T322B106M010AS	0.8	6	CX05F106M	T323B106M010AS
12.0	C	5,10,20	T322C126(1)010AS	1.0	6		
15.0	C	5,10,20	T322C156(1)010AS	1.2	6		
18.0	C	5,10,20	T322C186(1)010AS	1.4	6		
22.0	C	5	T322C226J010AS	1.5	6		
22.0	C	10	T322C226K010AS	1.5	6	CX05F226K	T323C226K010AS
22.0	C	20	T322C226M010AS	1.5	6	CX05F226M	T323C226M010AS
27.0	D	5	T322D276J010AS	2.2	6		
27.0	D	10	T322D276K010AS	2.2	6	CX05F276K	T323D276K010AS
27.0	D	20	T322D276M010AS	2.2	6	CX05F276M	T323D276M010AS
33.0	D	5	T322D336J010AS	2.6	6		
33.0	D	10	T322D336K010AS	2.6	6	CX05F336K	T323D336K010AS
33.0	D	20	T322D336M010AS	2.6	6	CX05F336M	T323D336M010AS
39.0	D	5	T322D396J010AS	3.1	6		
39.0	D	10	T322D396K010AS	3.1	6	CX05F396K	T323D396K010AS
39.0	D	20	T322D396M010AS	3.1	6	CX05F396M	T323D396M010AS
47.0	D	5	T322D476J010AS	3.8	6		
47.0	D	10	T322D476K010AS	3.8	6	CX05F476K	T323D476K010AS
47.0	D	20	T322D476M010AS	3.8	6	CX05F476M	T323D476M010AS
56.0	E	5,10,20	T322E566(1)010AS	4.4	6		
68.0	E	5,10,20	T322E686(1)010AS	5.0	6		
82.0	E	5,10,20	T322E826(1)010AS	5.0	8		
100.0	E	5,10,20	T322E107(1)010AS	8.0	8		
120.0	E	5,10,20	T322E127(1)010AS	9.6	8		
150.0	E	5,10,20	T322E157(1)010AS	10.0	8		
180.0	F	5,10,20	T322F187(1)010AS	10.0	8		
220.0	F	5,10,20	T322F227(1)010AS	10.0	8		
15 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C							
1.5	A	5,10,20	T322A155(1)015AS	0.5	4		
1.8	A	5,10,20	T322A185(1)015AS	0.5	4		
2.2	A	5	T322A225J015AS	0.5	4		
2.2	A	10	T322A225K015AS	0.5	4	CX05H225K	T323A225K015AS
2.2	A	20	T322A225M015AS	0.5	4	CX05H225M	T323A225M015AS
2.7	B	5,10,20	T322B275(1)015AS	0.5	4		
3.3	B	5,10,20	T322B335(1)015AS	0.5	4		
3.9	B	5,10,20	T322B395(1)015AS	0.5	4		
4.7	B	5,10,20	T322B475(1)015AS	0.6	4		
5.6	B	5,10,20	T322B565(1)015AS	0.7	4		
6.8	B	5	T322B685J015AS	0.8	6		
6.8	B	10	T322B685K015AS	0.8	6	CX05H685K	T323B685K015AS
6.8	B	20	T322B685M015AS	0.8	6	CX05H685M	T323B685M015AS
8.2	C	5,10,20	T322C825(1)015AS	1.0	6		
10.0	C	5,10,20	T322C106(1)015AS	1.2	6		
12.0	C	5,10,20	T322C126(1)015AS	1.4	6		
15.0	C	5	T322C156J015AS	1.5	6		
15.0	C	10	T322C156K015AS	1.5	6	CX05H156K	T323C156K015AS
15.0	C	20	T322C156M015AS	1.5	6	CX05H156M	T323C156M015AS

(1) To complete KEMET Part Number, insert Capacitance Tolerance Symbol as follows: M — ±20%, K — ±10%, J — ±5%
Bold Face lines indicate preferred part types and values.

T322/T323 Series Tantalum
Molded / Axial



TANTALUM MOLDED / AXIAL — MIL-PRF-49137/1 & 5

T322 & T323 (CX01 & CX05) SERIES

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T322 SERIES			CX01 & CX05 CAPACITORS PER MIL-PRF-49137/1 & 5	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120 HZ	MILITARY PART NUMBER	KEMET PART NUMBER
15 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C (Cont'd)							
18.0	D	5,10,20	T322D186(1)015AS	2.2	6	CX05H226K CX05H226M	T323D226K015AS T323D226M015AS
22.0	D	5	T322D226J015AS	2.6	6		
22.0	D	10	T322D226K015AS	2.6	6		
22.0	D	20	T322D226M015AS	2.6	6		
27.0	D	5,10,20	T322D276(1)015AS	3.2	6		
33.0	D	5	T322D336J015AS	4.0	6	CX05H336K CX05H336M	T323D336K015AS T323E336M015AS
33.0	D	10	T322D336K015AS	4.0	6		
33.0	D	20	T322D336M015AS	4.0	6		
39.0	E	5,10,20	T322E396(1)015AS	4.7	6		
47.0	E	5,10,20	T322E476(1)015AS	5.0	6		
56.0	E	5,10,20	T322E566(1)015AS	6.7	6		
68.0	E	5,10,20	T322E686(1)015AS	8.2	6		
82.0	E	5,10,20	T322E826(1)015AS	9.8	8		
100.0	E	5,10,20	T322E107(1)015AS	10.0	8		
120.0	F	5,10,20	T322F127(1)015AS	10.0	8		
150.0	F	5,10,20	T322F157(1)015AS	10.0	8		
20 VOLT RATING AT 85°C — 13 VOLT RATING AT 125°C							
1.0	A	5,10,20	T322A105(1)020AS	0.5	4	CX05J155K CX05J155M	T323A155K020AS T323A155M020AS
1.2	A	5,10,20	T322A125(1)020AS	0.5	4		
1.5	A	5	T322A155J020AS	0.5	4		
1.5	A	10	T322A155K020AS	0.5	4		
1.5	A	20	T322A155M020AS	0.5	4		
1.8	B	5,10,20	T322B185(1)020AS	0.5	4	CX05J475K CX05J475M	T323B475K020AS T323B475M020AS
2.2	B	5,10,20	T322B225(1)020AS	0.5	4		
2.7	B	5,10,20	T322B275(1)020AS	0.5	4		
3.3	B	5,10,20	T322B335(1)020AS	0.5	4		
3.9	B	5,10,20	T322B395(1)020AS	0.6	4		
4.7	B	5	T322B475J020AS	0.8	4		
4.7	B	10	T322B475K020AS	0.8	4		
4.7	B	20	T322B475M020AS	0.8	4		
5.6	C	5,10,20	T322C565(1)020AS	0.9	4		
6.8	C	5,10,20	T322C685(1)020AS	1.1	6		
8.2	C	5,10,20	T322C825(1)020AS	1.3	6		
10.0	C	5,10,20	T322C106(1)020AS	1.6	6		
12.0	D	5	T322D126J020AS	1.9	6	CX05J126K CX05J126M	T323D126K020AS T323D126M020AS
12.0	D	10	T322D126K020AS	1.9	6		
12.0	D	20	T322D126M020AS	1.9	6	CX05J156K CX05J156M	T323D156K020AS T323D156M020AS
15.0	D	5	T322D156J020AS	2.4	6		
15.0	D	10	T322D156K020AS	2.4	6		
15.0	D	20	T322D156M020AS	2.4	6		
18.0	D	5,10,20	T322D186(1)020AS	2.9	6		
22.0	D	5,10,20	T322D226(1)020AS	3.5	6		
27.0	E	5,10,20	T322E276(1)020AS	4.3	6		
33.0	E	5,10,20	T322E336(1)020AS	5.0	6		
39.0	E	5,10,20	T322E396(1)020AS	6.2	6		
47.0	E	5,10,20	T322E476(1)020AS	7.5	6		
56.0	E	5,10,20	T322E566(1)020AS	8.9	6		
68.0	E	5,10,20	T322E686(1)020AS	10.0	6		
82.0	F	5,10,20	T322F826(1)020AS	10.0	8		
100.0	F	5,10,20	T322F107(1)020AS	10.0	8		
25 VOLT RATING AT 85°C — 17 VOLT RATING AT 125°C							
0.47	A	5,10,20	T322A474(1)025AS	0.5	3	CX05K105K CX05K105M	T323A105K025AS T323A105M025AS
0.56	A	5,10,20	T322A564(1)025AS	0.5	3		
0.68	A	5,10,20	T322A684(1)025AS	0.5	3		
0.82	A	5,10,20	T322A824(1)025AS	0.5	3		
1.0	A	5	T322A105J025AS	0.5	3		
1.0	A	10	T322A105K025AS	0.5	3	CX01K155K CX01K155M	T323B155K025AS T323B155M020AS
1.0	A	20	T322A105M025AS	0.5	3		
1.2	B	5,10,20	T322B125(1)025AS	0.5	3		
1.5	B	5	T322B155J025AS	0.5	3		
1.5	B	10	T322B155K025AS	0.5	3		
1.5	B	20	T322B155M025AS	0.5	3		
1.8	B	5	T322B185J025AS	0.5	3		
1.8	B	10	T322B185K025AS	0.5	3		
1.8	B	20	T322B185M025AS	0.5	3	CX01K185K CX01K185M	T323B185K025AS T323B185M025AS
2.2	B	5	T322B225J025AS	0.5	3		
2.2	B	10	T322B225K025AS	0.5	3		

(1) To complete KEMET Part Number, insert Capacitance Tolerance Symbol as follows: M — ±20%, K — ±10%, J — ±5%
Bold Face lines indicate preferred part types and values.

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T322 SERIES			CX01 & CX05 CAPACITORS PER MIL-PRF-49137/1 & 5	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120 HZ	MILITARY PART NUMBER	KEMET PART NUMBER
25 VOLT RATING AT 85°C — 17 VOLT RATING AT 125°C (Cont'd)							
2.2	B	20	T322B225M025AS	0.5	3	CX01/5K225M	T323B225M025AS
2.7	B	5,10,20	T322B275(1)025AS	0.5	3		
3.3	B	5	T322B335J025AS	0.7	3	CX05K335K CX05K335M	T323B335K025AS
3.3	B	10	T322B335K025AS	0.7	3		T323B335M025AS
3.3	B	20	T322B335M025AS	0.7	3		
3.9	C	5,10,20	T322C395(1)025AS	0.8	3	CX05K685K CX05K685M	T323C685K025AS T323C685M025AS
4.7	C	5,10,20	T322C475(1)025AS	0.9	4		
5.6	C	5,10,20	T322C565(1)025AS	1.1	4		
6.8	C	5	T322C685J025AS	1.4	4		
6.8	C	10	T322C685K025AS	1.4	4		
6.8	C	20	T322C685M025AS	1.4	4		
8.2	C	5,10,20	T322C825(1)025AS	1.5	4	CX05K106K CX05K106M	T323C106K025AS T323C106M025AS
10.0	C	5	T322C106J025AS	1.5	4		
10.0	C	10	T322C106K025AS	1.5	4		
10.0	C	20	T322C106M025AS	1.5	4		
12.0	D	5,10,20	T322D126(1)025AS	2.4	4		
15.0	D	5,10,20	T322D156(1)025AS	3.0	4		
18.0	E	5,10,20	T322E186(1)025AS	3.6	6		
22.0	E	5,10,20	T322E226(1)025AS	4.4	6		
27.0	E	5,10,20	T322E276(1)025AS	5.4	6		
33.0	E	5,10,20	T322E336(1)025AS	6.6	6		
39.0	E	5,10,20	T322E396(1)025AS	7.8	6		
47.0	E	5,10,20	T322E476(1)025AS	9.4	6		
56.0	F	5,10,20	T322F566(1)025AS	10.0	6		
68.0	F	5,10,20	T322F686(1)025AS	10.0	6		
35 VOLT RATING AT 85°C — 23 VOLT RATING AT 125°C							
0.1	A	5,10,20	T322A104(1)035AS	0.5	3	CX05M334K CX05M334M	T323A334K035AS T323A334M035AS
0.12	A	5,10,20	T322A124(1)035AS	0.5	3		
0.15	A	5,10,20	T322A154(1)035AS	0.5	3		
0.18	A	5,10,20	T322A184(1)035AS	0.5	3		
0.22	A	5,10,20	T322A224(1)035AS	0.5	3		
0.27	A	5,10,20	T322A274(1)035AS	0.5	3		
0.33	A	5	T322A334J035AS	0.5	3		
0.33	A	10	T322A334K035AS	0.5	3		
0.33	A	20	T322A334M035AS	0.5	3		
0.39	A	5,10,20	T322A394(1)035AS	0.5	3		
0.47	A	5	T322A474J035AS	0.5	3	CX05M474K CX05M474M	T323A474K035AS T323A474M035AS
0.47	A	10	T322A474K035AS	0.5	3		
0.47	A	20	T322A474M035AS	0.5	3		
0.56	B	5	T322B564J035AS	0.5	3	CX01M564K CX01M564M	T323B564K035AS T323B564M035AS
0.56	B	10	T322B564K035AS	0.5	3		
0.56	B	20	T322B564M035AS	0.5	3	CX01M684K CX01M684M	T323B684K035AS T323B684M035AS
0.68	B	5	T322B684J035AS	0.5	3		
0.68	B	10	T322B684K035AS	0.5	3	CX01M824K CX01M824M	T323B824K035AS T323B824M035AS
0.68	B	20	T322B684M035AS	0.5	3		
0.82	B	5	T322B824J035AS	0.5	3	CX01M105K CX01M105M	T323B105K035AS T323B105M035AS
0.82	B	10	T322B824K035AS	0.5	3		
0.82	B	20	T322B824M035AS	0.5	3	CX01M125K CX01M125M	T323B125K035AS T323B125M035AS
1.0	B	5	T322B105J035AS	0.5	3		
1.0	B	10	T322B105K035AS	0.5	3	CX05M155K CX05M155M	T323B155K035AS T323B155M035AS
1.0	B	20	T322B105M035AS	0.5	3		
1.2	B	5	T322B125J035AS	0.5	3	CX05M335K CX05M335M	T323C335K035AS T323C335M035AS
1.2	B	10	T322B125K035AS	0.5	3		
1.2	B	20	T322B125M035AS	0.5	3		
1.5	B	5	T322B155J035AS	0.5	3	CX05M395K CX05M395M	T323C395K035AS T323C395M035AS
1.5	B	10	T322B155K035AS	0.5	3		
1.5	B	20	T322B155M035AS	0.5	3	CX05M475K CX05M475M	T323C475K035AS T323C475M035AS
1.8	C	5,10,20	T322C185(1)035AS	0.5	3		
2.2	C	5,10,20	T322C225(1)035AS	0.6	3		
2.7	C	5,10,20	T322C275(1)035AS	0.8	3		
3.3	C	5	T322C335J035AS	0.9	4		
3.3	C	10	T322C335K035AS	0.9	4		
3.3	C	20	T322C335M035AS	0.9	4		
3.9	C	5	T322C395J035AS	1.1	4		
3.9	C	10	T322C395K035AS	1.1	4		
3.9	C	20	T322C395M035AS	1.1	4		
4.7	C	5	T322C475J035AS	1.3	4	CX05M475K CX05M475M	T323C475K035AS T323C475M035AS
4.7	C	10	T322C475K035AS	1.3	4		
4.7	C	20	T322C475M035AS	1.3	4		

(1) To complete KEMET Part Number, insert Capacitance Tolerance Symbol as follows: M — ±20%, K — ±10%, J — ±5%

Bold Face lines indicate preferred part types and values.



TANTALUM MOLDED / AXIAL — MIL-PRF-49137/1 & 5

T322 & T323 (CX01 & CX05) SERIES

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	CAPACITANCE TOLERANCE ±%	KEMET T322 SERIES			CX01 & CX05 CAPACITORS PER MIL-PRF-49137/1 & 5	
			KEMET PART NUMBER	D.C. LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120 HZ	MILITARY PART NUMBER	KEMET PART NUMBER
35 VOLT RATING AT 85°C — 23 VOLT RATING AT 125°C							
5.6	D	5,10,20	T322D565(1)035AS	1.6	4	CX05M685K CX05M685M	T323D685K035AS T323D685M035AS
6.8	D	5	T322D685J035AS	1.9	4		
6.8	D	10	T322D685K035AS	1.9	4		
6.8	D	20	T322D685M035AS	1.9	4		
8.2	D	5,10,20	T322D825(1)035AS	2.3	4	CX05M106K CX05M106M	T323D106K035AS T323D106M035AS
10.0	D	5	T322D106J035AS	2.8	4		
10.0	D	10	T322D106K035AS	2.8	4		
10.0	D	20	T322D106M035AS	2.8	4		
12.0	E	5,10,20	T322E126(1)035AS	3.3	4		
15.0	E	5,10,20	T322E156(1)035AS	4.2	6		
18.0	E	5,10,20	T322E186(1)035AS	5.0	6		
22.0	E	5,10,20	T322E226(1)035AS	6.2	6		
27.0	E	5,10,20	T322E276(1)035AS	7.5	6		
33.0	E	5,10,20	T322E336(1)035AS	9.2	6		
39.0	F	5,10,20	T322F396(1)035AS	10.0	6		
47.0	F	5,10,20	T322F476(1)035AS	10.0	6		
50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C							
0.1	A	5	T322A104J050AS	0.5	3	CX05N104K CX05N104M	T323A104K050AS T323A104M050AS
0.1	A	10	T322A104K050AS	0.5	3		
0.1	A	20	T322A104M050AS	0.5	3		
0.12	A	5,10,20	T322A124(1)050AS	0.5	3		
0.15	A	5	T322A154J050AS	0.5	3	CX05N154K CX05N154M	T323A154K050AS T323A154M050AS
0.15	A	10	T322A154K050AS	0.5	3		
0.15	A	20	T322A154M050AS	0.5	3		
0.18	A	5,10,20	T322A184(1)050AS	0.5	3		
0.22	A	5	T322A224J050AS	0.5	3	CX05N224K CX05N224M	T323A224K050AS T323A224M050AS
0.22	A	10	T322A224K050AS	0.5	3		
0.22	A	20	T322A224M050AS	0.5	3		
0.27	A	5,10,20	T322A274(1)050AS	0.5	3		
0.33	B	5	T322B334J050AS	0.5	3	CX05N334K CX05N334M	T323B334K050AS T323B334M050AS
0.33	B	10	T322B334K050AS	0.5	3		
0.33	B	20	T322B334M050AS	0.5	3		
0.39	B	5	T322B394J050AS	0.5	3		
0.39	B	10	T322B394K050AS	0.5	3	CX05N394K CX05N394M	T323B394K050AS T323B394M050AS
0.39	B	20	T322B394M050AS	0.5	3		
0.47	B	5	T322B474J050AS	0.5	3		
0.47	B	10	T322B474K050AS	0.5	3		
0.47	B	20	T322B474M050AS	0.5	3	CX05N474K CX05N474M	T323B474K050AS T323B474M050AS
0.56	B	5,10,20	T322B564(1)050AS	0.5	3		
0.68	B	5	T322B684J050AS	0.5	3		
0.68	B	10	T322B684K050AS	0.5	3		
0.68	B	20	T322B684M050AS	0.5	3	CX05N684K CX05N684M	T323B684K050AS T323B684M050AS
0.82	B	5,10,20	T322B824(1)050AS	0.5	3		
1.0	B	5	T322B105J050AS	0.5	3		
1.0	B	10	T322B105K050AS	0.5	3		
1.0	B	20	T322B105M050AS	0.5	3	CX05N105K CX05N105M	T323B105K050AS T323B105M050AS
1.2	C	5,10,20	T322C125(1)050AS	0.5	3		
1.5	C	5	T322C155J050AS	0.6	4		
1.5	C	10	T322C155K050AS	0.6	4		
1.5	C	20	T322C155M050AS	0.6	4	CX05N155K CX05N155M	T323C155K050AS T323C155M050AS
1.8	C	5,10,20	T322C185(1)050AS	0.7	4		
2.2	C	5	T322C225J050AS	0.9	4		
2.2	C	10	T322C225K050AS	0.9	4		
2.2	C	20	T322C225M050AS	0.9	4	CX05N225K CX05N225M	T323C225K050AS T323C225M050AS
2.7	D	5,10,20	T322D275(1)050AS	1.1	4		
3.3	D	5	T322D335J050AS	1.3	4		
3.3	D	10	T322D335K050AS	1.3	4		
3.3	D	20	T322D335M050AS	1.3	4	CX05N335K CX05N335M	T323D335K050AS T323D335M050AS
3.9	D	5,10,20	T322D395(1)050AS	1.6	4		
4.7	D	5	T322D475J050AS	1.9	4		
4.7	D	10	T322D475K050AS	1.9	4		
4.7	D	20	T322D475M050AS	1.9	4	CX05N475K CX05N475M	T323D475K050AS T323D475M050AS
5.6	E	5,10,20	T322E565(1)050AS	2.2	4		
6.8	E	5,10,20	T322E685(1)050AS	2.7	4		
8.2	E	5,10,20	T322E825(1)050AS	3.2	4		
10.0	E	5,10,20	T322E106(1)050AS	4.0	6		
12.0	F	5,10,20	T322F126(1)050AS	4.8	6		
15.0	F	5,10,20	T322F156(1)050AS	6.0	6		
18.0	F	5,10,20	T322F186(1)050AS	7.2	6		
22.0	F	5,10,20	T322F226(1)050AS	8.8	6		

(1) To complete KEMET Part Number, insert Capacitance Tolerance Symbol as follows: M — ±20%, K — ±10%, J — ±5%
Bold Face lines indicate preferred part types and values.

T330 Series

KEMET T330 Series, polar-type, radial lead rectangular Precision Molded Tantalum (PMT) capacitors are primarily designed for applications that demand full use of the premium space available in printed circuitry and high density packaging. Compact, space saving T330 Series capacitors provide superior packing factor and space utilization compared with tubular units of the same microcoulomb (CV) rating.

T330 Series capacitors employ a rectangular sintered, dry tantalum anode, transfer molded in precision dies with a high impact resistant plastic having excellent electrical, physical, and moisture resistant properties. All cases utilize gold color plastic which permits laser marking with outstanding permanency and legibility. The polarity is indicated by a + sign permanently marked on the case. The radius on the two vertical edges at the positive end of B, C, and D Cases can be used as a sensing dimension for automatic insertion processes.

T340 Series

The compact space saving T340 Series is transfer molded in precision dies with a high impact resistant plastic having excellent electrical, physical, and moisture resistant properties. The gold color plastic case utilized permits laser marking with outstanding permanency and legibility.

Marking is provided on the top of the case to allow visual inspection for proper polarity and placement after insertion. In addition, positive polarity identification is achieved by an easily recognized molded radius on the positive end of the case. This physical polarity identification is readily observed after capacitor placement as a further aid to the top marking in prevention of possible reverse insertion.

The location of the standoffs may serve a similar sensing function for the A Case. These standoffs, located in the base of all case sizes, provide vents for air circulation and also allow easy removal of flux residues from leadwire and circuit board solder joints.

T330 Series capacitors are highly reliable and exhibit performance characteristics typical of military test standards. They are available in capacitance values ranging from 0.1 to 220 microfarads in ± 20 , ± 10 , $\pm 5\%$ tolerance levels, and in working voltages from 6 to 50 volts. At 85°C the capacitors will operate continuously at full rated voltage. They are rated to 125°C when operated at 2/3 of nameplate voltage. In addition, they feature exceptionally low DC leakage and Dissipation Factor characteristics.

They are ideal for bypass, coupling, and timing applications in computers, military ordinance, industrial, entertainment, and consumer electronic equipment.

Standoffs, located in the base of all case sizes, provide vents for air circulation and also allow easy removal of flux residues from leadwire and circuit board solder joints. With very low impedance and ESR values, the T340 Series features exceptionally low DC leakage and DF characteristics. The T340 Series is available in standard $\pm 20\%$; $\pm 10\%$; $\pm 5\%$ (special order) capacitance tolerance.

T340 Series capacitors are highly reliable and exhibit performance characteristics typical of military test standards.

PERFORMANCE CHARACTERISTICS

- **CAPACITANCE/VOLTAGE RANGE:**
 T330: 0.1-220 μ F, 6-50 Volts.
 T340: 0.1-330 μ F, 6-50 Volts.
- **CAPACITANCE TOLERANCE:** Available in standard EIA nominal values with $\pm 20\%$ tolerance standard, $\pm 10\%$ and $\pm 5\%$ available on special order.
- **DISSIPATION FACTOR:** Maximum DF limits are shown in corresponding series part number listing. See Application Notes Section, page 78.
- **DC LEAKAGE CURRENT:** Maximum leakage values at 25°C are shown in part number listings, pages 51, 52, 55, 56 and 57. See Application Notes Section, page 76.
- **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 additional information. Reference ESR values are shown in table below.
- **AC RIPPLE VOLTAGE:** Permissible AC ripple voltage is related to ESR of the capacitor and the power dissipation capabilities of a particular case size. Thermal capacities for the various case sizes have been determined and are listed in Table below. For additional description see page 78.

T330/T340 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 T330/T340 Series product.)

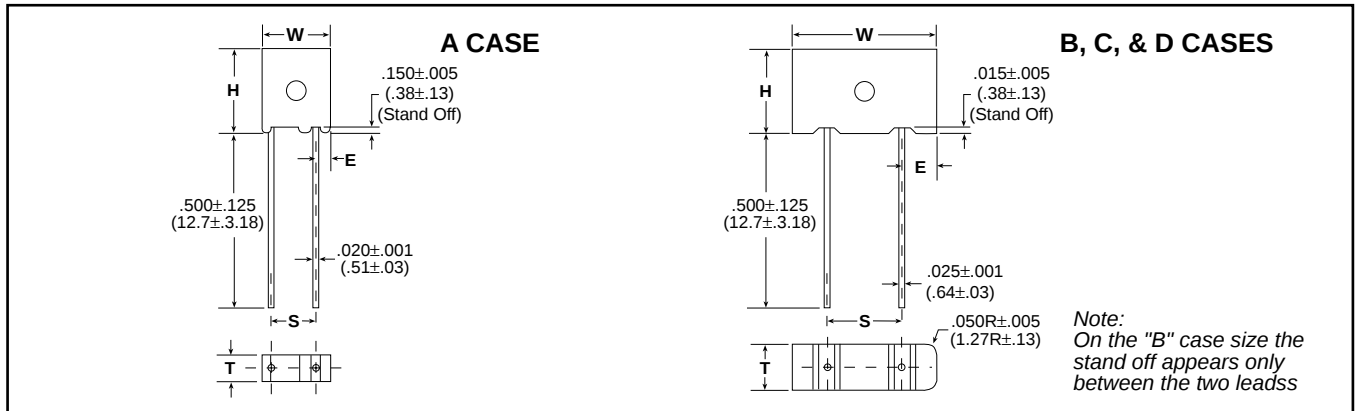
Cap. μ F	6 Volt	10 Volt	15 Volt	20 Volt	25 Volt	35 Volt	50 Volt
0.10						26.0	26.0
0.15						21.0	21.0
0.22						17.0	17.0
0.33						15.0	15.0
0.47						13.0	13.0
0.68						10.0	10.0
1.00						8.0	8.0
1.50					8.0	6.0	5.0
2.20				7.0	6.0	5.0	3.5
3.30			6.0	5.5	5.0	4.0	3.0
4.70		8.0	5.0	4.5	4.0	3.0	2.5
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						

Series	Case Size	Watts
T330/T340	A	.09
	B	.09
	C	.100
T330	D	.125
T340 only	D/F	.125
	E	.180

Maximum Power Dissipation: 25°C Ambient

- **ENVIRONMENTAL CONSIDERATIONS:**
 - A. Shock Test: MIL-STD-202, Method 213.
 - B. Thermal Shock, MIL-STD-202, Method 107.
 - C. Moisture Resistance: MIL-STD-202, Method 106.
 - D. 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-1276.
- **LEAD TAPE and REEL:** Reeling per specification RS-468. See pages 71 and 73 for additional information.

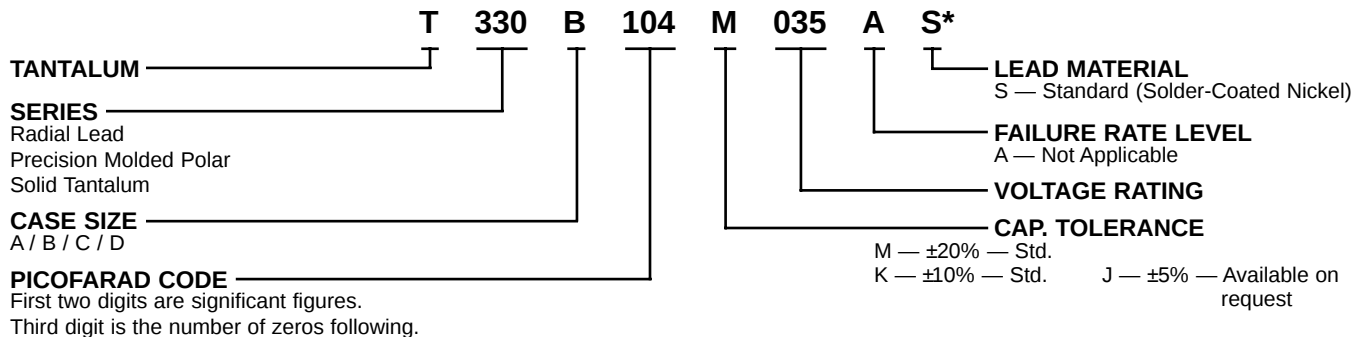
CAPACITOR OUTLINE DRAWINGS



DIMENSIONS — INCHES & (MILLIMETERS)

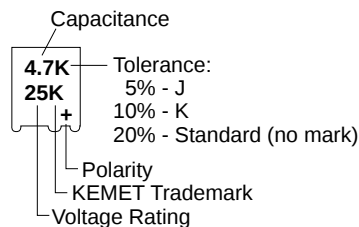
CASE SIZE	H CASE HEIGHT	W CASE WIDTH	T CASE THICKNESS	E CASE TO WIRE	S LEAD SPACING
A	.345 ± .008 (8.76 ± .203)	.230 ± .005 (5.84 ± .127)	.105 ± .005 (2.67 ± .127)	.050 ± .010 (1.27 ± .25)	.125 ± .005 (3.18 ± .127)
B	.225 ± .015 (5.71 ± 0.38)	.285 ± .015 (7.24 ± 0.38)	.170 ± .015 (4.32 ± 0.38)	.042 ± .010 (1.07 ± .25)	.200 ± .005 (5.08 ± .127)
C	.325 ± .015 (8.26 ± 0.38)	.325 ± .015 (8.26 ± 0.38)	.170 ± .015 (4.32 ± 0.38)	.062 ± .010 (1.57 ± 0.25)	.200 ± .005 (5.08 ± .127)
D	.375 ± .015 (9.53 ± 0.38)	.600 ± .015 (15.24 ± 0.38)	.195 ± .015 (4.95 ± 0.38)	.200 ± .010 (5.08 ± 0.25)	.200 ± .005 (5.08 ± .127)

ORDERING INFORMATION



***Part Number Example: T330B104M035AS (14 digits – no spaces)**

MARKING INFORMATION



RATINGS & PART NUMBER REFERENCE

A CASE

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 — 4 VOLT RATING AT 125°C				
18.0	A	T330A186(1)006AS	1	6
22.0	A	T330A226(1)006AS	1	6
10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C				
10.0	A	T330A106(1)010AS	1	6
12.0	A	T330A126(1)010AS	1	6
15.0	A	T330A156(1)010AS	1	6
15 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C				
8.2	A	T330A825(1)015AS	1	6
20 VOLT RATING AT 85°C — 13 VOLT RATING AT 125°C				
5.6	A	T330A565(1)020AS	1	6
6.8	A	T330A685(1)020AS	1	6
25 VOLT RATING AT 85°C — 17 VOLT RATING AT 125°C				
3.3	A	T330A335(1)025AS	1	4
3.9	A	T330A395(1)025AS	1	4
4.7	A	T330A475(1)025AS	1	4
35 VOLT RATING AT 85°C — 23 VOLT RATING AT 125°C				
0.10	A	T330A104(1)035AS	1	3
0.12	A	T330A124(1)035AS	1	3
0.15	A	T330A154(1)035AS	1	3
0.18	A	T330A184(1)035AS	1	3
0.22	A	T330A224(1)035AS	1	3
0.27	A	T330A274(1)035AS	1	3
0.33	A	T330A334(1)035AS	1	3

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				
0.39	A	T330A394(1)035AS	1	3
0.47	A	T330A474(1)035AS	1	3
0.56	A	T330A564(1)035AS	1	3
0.68	A	T330A684(1)035AS	1	3
0.82	A	T330A824(1)035AS	1	3
1.0	A	T330A105(1)035AS	1	3
1.2	A	T330A125(1)035AS	1	4
1.5	A	T330A155(1)035AS	1	4
1.8	A	T330A185(1)035AS	1	4
2.2	A	T330A225(1)035AS	1	4
2.7	A	T330A275(1)035AS	1	4
50 VOLT RATING AT 85°C — 33 VOLT RATING AT 125°C				
0.10	A	T330A104(1)050AS	1	3
0.12	A	T330A124(1)050AS	1	3
0.15	A	T330A154(1)050AS	1	3
0.18	A	T330A184(1)050AS	1	3
0.22	A	T330A224(1)050AS	1	3
0.27	A	T330A274(1)050AS	1	3
0.33	A	T330A334(1)050AS	1	3
0.39	A	T330A394(1)050AS	1	3
0.47	A	T330A474(1)050AS	1	3
0.56	A	T330A564(1)050AS	1	3
0.68	A	T330A684(1)050AS	1	3
0.82	A	T330A824(1)050AS	1	4
1.0	A	T330A105(1)050AS	1	4
1.2	A	T330A125(1)050AS	1	4
1.5	A	T330A155(1)050AS	1	4

B, C & D CASES

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 — 4 VOLT RATING AT 125°C				
10.0	B	T330B106(1)006AS	1	6
12.0	B	T330B126(1)006AS	1	6
15.0	B	T330B156(1)006AS	1	6
18.0	B	T330B186(1)006AS	1	6
22.0	B	T330B226(1)006AS	1	6
27.0	C	T330C276(1)006AS	1	6
33.0	C	T330C336(1)006AS	1	6
39.0	C	T330C396(1)006AS	1	6
47.0	C	T330C476(1)006AS	2	6
56.0	C	T330C566(1)006AS	5	6
68.0	C	T330C686(1)006AS	5	6
82.0	D	T330D826(1)006AS	5	6
100.0	D	T330D107(1)006AS	5	6
120.0	D	T330D127(1)006AS	5	6
150.0	D	T330D157(1)006AS	5	6
180.0	D	T330D187(1)006AS	10	6
220.0	D	T330D227(1)006AS	10	8
10 VOLT RATING AT 85°C — 7 VOLT RATING AT 125°C				
5.6	B	T330B565(1)010AS	1	6
6.8	B	T330B685(1)010AS	1	6
8.2	B	T330B825(1)010AS	1	6
10.0	B	T330B106(1)010AS	1	6
12.0	B	T330B126(1)010AS	1	6
15.0	B	T330B156(1)010AS	1	6
18.0	C	T330C186(1)010AS	1	6
22.0	C	T330C226(1)010AS	2	6
27.0	C	T330C276(1)010AS	2	6

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				
33.0	C	T330C336(1)010AS	2	6
39.0	C	T330C396(1)010AS	5	6
47.0	D	T330D476(1)010AS	5	6
56.0	D	T330D566(1)010AS	5	6
68.0	D	T330D686(1)010AS	5	6
82.0	D	T330D826(1)010AS	5	6
100.0	D	T330D107(1)010AS	10	6
120.0	D	T330D127(1)010AS	10	6
150.0	D	T330D157(1)010AS	10	6
15 VOLT RATING AT 85°C — 10 VOLT RATING AT 125°C				
3.9	B	T330B395(1)015AS	1	6
4.7	B	T330B475(1)015AS	1	6
5.6	B	T330B565(1)015AS	1	6
6.8	B	T330B685(1)015AS	1	6
8.2	B	T330B825(1)015AS	1	6
10.0	C	T330C106(1)015AS	1	6
12.0	C	T330C126(1)015AS	1	6
15.0	C	T330C156(1)015AS	2	6
18.0	C	T330C186(1)015AS	5	6
22.0	C	T330C226(1)015AS	5	6
27.0	C	T330C276(1)015AS	5	6
33.0	C	T330C336(1)015AS	5	6
39.0	D	T330D396(1)015AS	10	6
47.0	D	T330D476(1)015AS	10	6
56.0	D	T330D566(1)015AS	10	6
68.0	D	T330D686(1)015AS	10	6
82.0	D	T330D826(1)015AS	10	6

(1) To complete Part Number insert Capacitance Tolerance Symbol in the 9th character, M — ±20%, K — ±10%, J — ±5%.

Bold face lines indicate popular part types and values.

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



TANTALUM MOLDED / RADIAL

T330 SERIES - PRECISION MOLDED - RADIAL LEADS

B, C & D CASES (Cont'd)

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 — 17 VOLT RATING AT 125°C				
2.7	B	T330B275(1)025AS	1	6
3.3	B	T330B335(1)025AS	1	6
3.9	B	T330B395(1)025AS	1	6
4.7	B	T330B475(1)025AS	1	6
5.6	C	T330C565(1)025AS	1	6
6.8	C	T330C685(1)025AS	1	6
8.2	C	T330C825(1)025AS	1	6
10.0	C	T330C106(1)025AS	1	6
12.0	C	T330C126(1)025AS	1	6
15.0	C	T330C156(1)025AS	2	6
18.0	D	T330D186(1)025AS	5	6
22.0	D	T330D226(1)025AS	5	6
27.0	D	T330D276(1)025AS	5	6
33.0	D	T330D336(1)025AS	5	6
39.0	D	T330D396(1)025AS	10	6
47.0	D	T330D476(1)025AS	10	6
35 VOLT RATING AT 85°C—23 VOLT RATING AT 125°C				
0.10	B	T330B104(1)035AS	1	6
0.12	B	T330B124(1)035AS	1	6
0.15	B	T330B154(1)035AS	1	6
0.18	B	T330B184(1)035AS	1	6
0.22	B	T330B224(1)035AS	1	6
0.27	B	T330B274(1)035AS	1	6
0.33	B	T330B334(1)035AS	1	6
0.39	B	T330B394(1)035AS	1	6
0.47	B	T330B474(1)035AS	1	6
0.56	B	T330B564(1)035AS	1	6
0.68	B	T330B684(1)035AS	1	6
0.82	B	T330B824(1)035AS	1	6
1.0	B	T330B105(1)035AS	1	6
1.2	B	T330B125(1)035AS	1	6
1.5	B	T330B155(1)035AS	1	6
1.8	B	T330B185(1)035AS	1	6
2.2	B	T330B225(1)035AS	1	6
2.7	B	T330B275(1)035AS	1	6
3.3	B	T330B335(1)035AS	1	6
3.9	C	T330C395(1)035AS	1	6
4.7	C	T330C475(1)035AS	1	6
5.6	C	T330C565(1)035AS	1	6

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				
6.8	C	T330C685(1)035AS	2	6
8.2	C	T330C825(1)035AS	5	6
10.0	C	T330C106(1)035AS	5	6
12.0	D	T330D126(1)035AS	5	6
15.0	D	T330D156(1)035AS	5	6
18.0	D	T330D186(1)035AS	10	6
22.0	D	T330D226(1)035AS	10	6
27.0	D	T330D276(1)035AS	10	6
33.0	D	T330D336(1)035AS	10	6
50 VOLT RATING AT 85°C—33 VOLT RATING AT 125°C				
0.10	B	T330B104(1)050AS	1	6
0.12	B	T330B124(1)050AS	1	6
0.15	B	T330B154(1)050AS	1	6
0.18	B	T330B184(1)050AS	1	6
0.22	B	T330B224(1)050AS	1	6
0.27	B	T330B274(1)050AS	1	6
0.33	B	T330B334(1)050AS	1	6
0.39	B	T330B394(1)050AS	1	6
0.47	B	T330B474(1)050AS	1	6
0.56	B	T330B564(1)050AS	1	6
0.68	B	T330B684(1)050AS	1	6
0.82	B	T330B824(1)050AS	1	6
1.0	B	T330B105(1)050AS	1	6
1.2	B	T330B125(1)050AS	1	6
1.5	B	T330B155(1)050AS	1	6
1.8	B	T330B185(1)050AS	1	6
2.2	B	T330B225(1)050AS	1	6
2.7	C	T330C275(1)050AS	1	6
3.3	C	T330C335(1)050AS	2	6
3.9	C	T330C395(1)050AS	5	6
4.7	C	T330C475(1)050AS	5	6
5.6	C	T330C565(1)050AS	5	6
6.8	D	T330D685(1)050AS	5	6
8.2	D	T330D825(1)050AS	5	6
10.0	D	T330D106(1)050AS	5	6
12.0	D	T330D126(1)050AS	5	6
15.0	D	T330D156(1)050AS	10	6
18.0	D	T330D186(1)050AS	10	6

(1) To complete Part Number insert Capacitance Tolerance Symbol in the 9th character, M — ±20%, K — ±10%, J — ±5%.

Bold face lines indicate popular part types and values.

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

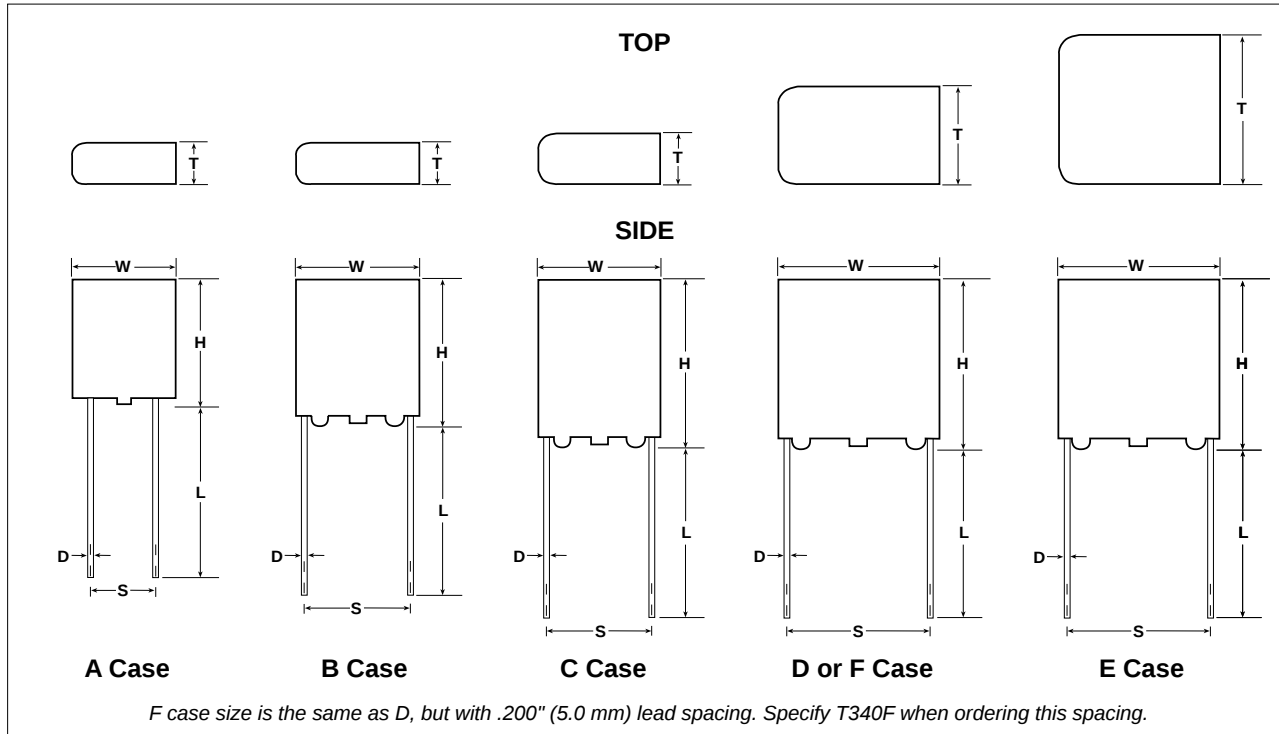
TANTALUM MOLDED / RADIAL

T340 SERIES - PRECISION MOLDED - RADIAL LEADS



Effective September 30, 2005, the KEMET T340 Series is RoHS compliant.

CAPACITOR OUTLINE DRAWINGS



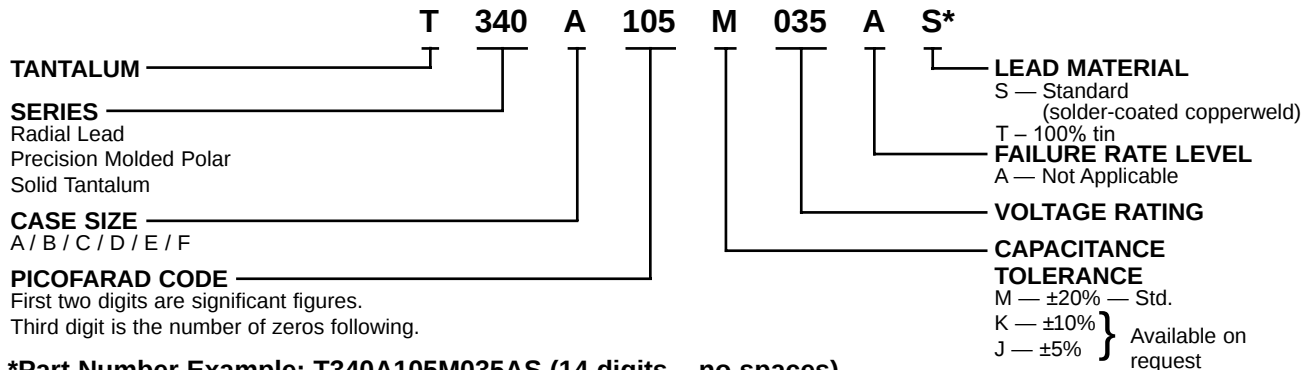
T340 Series Tantalum
Molded / Radial

DIMENSIONS — INCHES & MILLIMETERS

CASE SIZE	H** (MAX)		W (MAX)		T (MAX)		LEAD SPACING S		LEAD LENGTH L		LEAD DIAMETER D	
	H		W		T		Inches	mm	Inches	mm	Inches	mm
	Inches	mm	Inches	mm	inches	mm	±.020	±.5	±.078	±2.0	±.001	±.03
A	.287	7.3	.185	4.7	.165	4.2	.100	2.5	.600	15.0	.020	0.50
B	.327	8.3	.283	7.2	.157	4.0	.200	5.0	.600	15.0	.020	0.50
C	.413	10.5	.287	7.3	.169	4.3	.200	5.0	.600	15.0	.020	0.50
D	.413	10.5	.484	12.3	.287	7.3	.400	10.0	.600	15.0	.025	0.64
E	.413	10.5	.484	12.3	.484	12.3	.400	10.0	.600	15.0	.025	0.64
F	.413	10.5	.484	12.3	.287	7.3	.200	5.0	.600	15.0	.025	0.64

**Includes Standoff Height of .015 ± .005" (.38 ± .13 mm) for All Case Sizes.

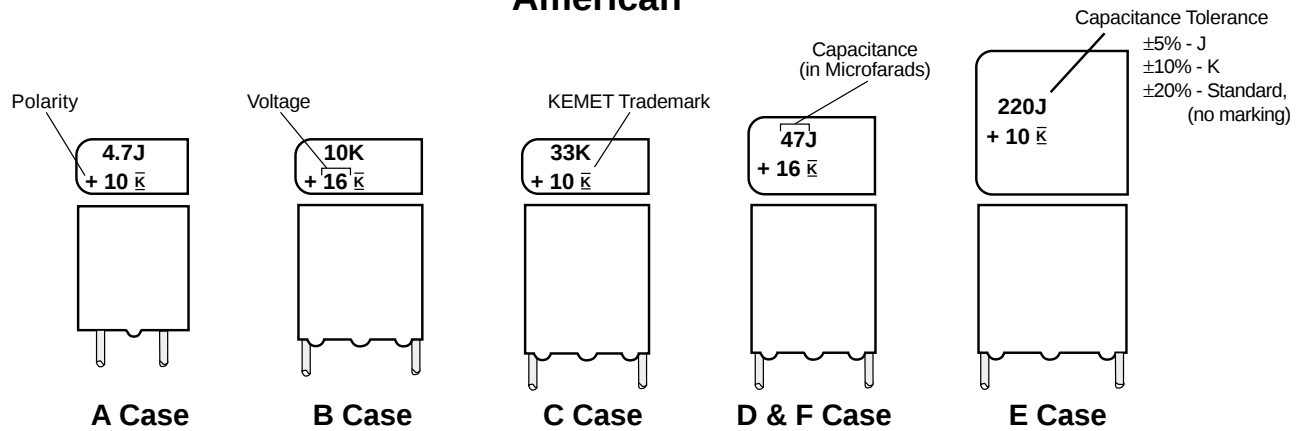
ORDERING INFORMATION



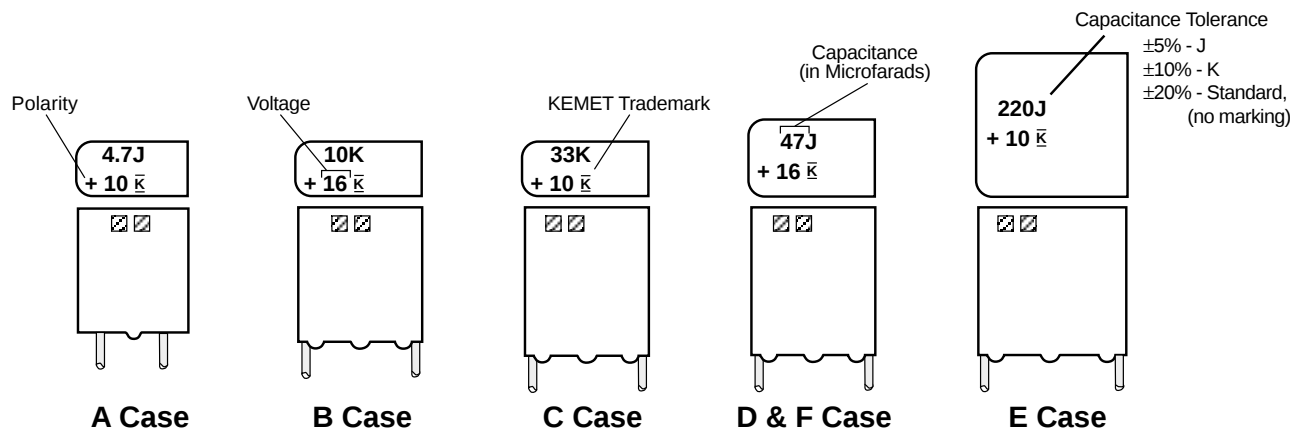
*Part Number Example: T340A105M035AS (14 digits – no spaces)

MARKING INFORMATION

American



European



□ □ = DIN. Specification Date Code

Insert Date Code as follows:

- | | |
|-------------------------------|--------------------------------|
| □ 1st digit - represents year | □ 2nd digit - represents month |
| L - 2000 | Q - 2005 |
| M - 2001 | R - 2006 |
| N - 2002 | S - 2007 |
| O - 2003 | T - 2008 |
| P - 2004 | U - 2009 |
| | 1 - 9 for January - September |
| | O for October |
| | N for November |
| | D for December |

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	MAX. DC LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120 HZ	MAX. IMPEDANCE Ω@ 10 kHz
3 VOLT RATING AT 85°C — 2 VOLT AT 125°C					
10.0	A	T340A106(1)003AS	1.0	6	6.0
15.0	A	T340A156(1)003AS	1.0	6	3.2
33.0	B	T340B336(1)003AS	1.5	6	2.1
47.0	B	T340B476(1)003AS	3.0	6	1.8
68.0	C	T340C686(1)003AS	4.0	6	1.5
100.0	C	T340C107(1)003AS	5.0	6	1.2
6/6.3 VOLT RATING AT 85°C — 4 VOLT AT 125°C					
6.8	A	T340A685(1)006AS	1.0	6	6.0
10.0	B	T340B106(1)006AS	1.0	6	2.1
12.0	B	T340B126(1)006AS	1.0	6	
15.0	B	T340B156(1)006AS	1.0	6	
18.0	B	T340B186(1)006AS	1.0	6	
22.0	B	T340B226(1)006AS	2.5	6	
27.0	C	T340C276(1)006AS	2.5	6	1.5
33.0	C	T340C336(1)006AS	2.5	6	
39.0	C	T340C396(1)006AS	2.5	6	
47.0	C	T340C476(1)006AS	3.0	6	
56.0	C	T340C566(1)006AS	5.0	6	
68.0	C	T340C686(1)006AS	5.0	6	0.8
82.0	D/F	T340(2)826(1)006AS	5.0	6	
100.0	D/F	T340(2)107(1)006AS	5.0	6	
120.0	D/F	T340(2)127(1)006AS	5.0	6	
150.0	D/F	T340(2)157(1)006AS	8.0	6	
180.0	D/F	T340(2)187(1)006AS	10.0	6	
220.0	D/F	T340(2)227(1)006AS	10.0	6	
330.0	E	T340E337(1)006AS	10.0	8	0.5
10 VOLT RATING AT 85°C — 6 VOLT AT 125°C					
4.7	A	T340A475(1)010AS	1.0	6	7.5
5.6	B	T340B565(1)010AS	1.0	6	2.5
6.8	B	T340B685(1)010AS	1.0	6	
8.2	B	T340B825(1)010AS	1.0	6	
10.0	B	T340B106(1)010AS	1.0	6	
12.0	B	T340B126(1)010AS	1.0	6	
15.0	B	T340B156(1)010AS	3.0	6	
18.0	C	T340C186(1)010AS	3.0	6	1.7
22.0	C	T340C226(1)010AS	3.0	6	
27.0	C	T340C276(1)010AS	3.0	6	
33.0	C	T340C336(1)010AS	5.0	6	
39.0	C	T340C396(1)010AS	5.0	6	
47.0	D/F	T340(2)476(1)010AS	5.0	6	1.0
56.0	D/F	T340(2)566(1)010AS	5.0	6	
68.0	D/F	T340(2)686(1)010AS	5.0	6	
82.0	D/F	T340(2)826(1)010AS	8.0	6	
100.0	D/F	T340(2)107(1)010AS	10.0	6	
120.0	D/F	T340(2)127(1)010AS	10.0	6	
150.0	D/F	T340(2)157(1)010AS	10.0	6	
220.0	E	T340E227(1)010AS	10.0	6	0.5
15/16 VOLT RATING AT 85°C — 10 VOLT AT 125°C					
3.3	A	T340A335(1)015AS	1.0	6	9.0
3.9	B	T340B395(1)015AS	1.0	6	3.2
4.7	B	T340B475(1)015AS	1.0	6	
5.6	B	T340B565(1)015AS	1.0	6	
6.8	B	T340B685(1)015AS	1.0	6	
8.2	B	T340B825(1)015AS	1.0	6	
10.0	B	T340B106(1)015AS	3.0	6	

(1) To complete KEMET Part Number, insert M — ±20%, K — ±10%, or J — ±5% for capacitance tolerance as shown in T340 ordering information.
 (2) To complete KEMET Part Number, insert letter "D" for 10.0 mm (.394) lead spacing or letter "F" for 5.0 mm (.197) lead spacing. See page 53 for outline drawings.
Bold face lines indicate popular part types and values.
 Higher voltage and better capacitance tolerance product may be substituted for an order within the same case size at KEMET'S option.

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	MAX. DC LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120 HZ	MAX IMPEDANCE Ω@ 10 kHz
15/16 VOLT RATING AT 85°C — 10 VOLT AT 125°C (Cont'd)					
12.0	C	T340C126(1)015AS	3.0	6	2.5
15.0	C	T340C156(1)015AS	3.5	6	
18.0	C	T340C186(1)015AS	4.0	6	2.1
22.0	C	T340C226(1)015AS	4.0	6	
27.0	C	T340C276(1)015AS	5.0	6	
33.0	C	T340C336(1)015AS	5.0	6	
39.0	D/F	T340(2)396(1)015AS	7.0	6	1.3
47.0	D/F	T340(2)476(1)015AS	7.0	6	
56.0	D/F	T340(2)566(1)015AS	8.0	6	1.1
68.0	D/F	T340(2)686(1)015AS	9.0	6	
82.0	D/F	T340(2)826(1)015AS	10.0	6	
100.0	E	T340E107(1)015AS	10.0	6	0.8
150.0	E	T340E157(1)015AS	10.0	6	0.6
20 VOLT RATING AT 85°C — 13 VOLT AT 125°C					
2.2	A	T340A225(1)020AS	1.0	6	12.0
3.3	B	T340B335(1)020AS	1.0	6	8.0
4.7	B	T340B475(1)020AS	1.5	6	5.5
6.8	B	T340B685(1)020AS	2.5	6	4.2
15.0	C	T340C156(1)020AS	5.0	6	2.5
47.0	D	T340D476(1)020AS	9.0	6	1.3
100.0	E	T340E107(1)020AS	10.0	6	0.8
25 VOLT RATING AT 85°C — 16 VOLT AT 125°C					
1.5	A	T340A155(1)025AS	1.0	6	17.0
2.7	B	T340B275(1)025AS	1.0	6	5.5
3.3	B	T340B335(1)025AS	1.0	6	
3.9	B	T340B395(1)025AS	1.0	6	
4.7	B	T340B475(1)025AS	2.0	6	
5.6	C	T340C565(1)025AS	2.0	6	4.2
6.8	C	T340C685(1)025AS	3.0	6	
8.2	C	T340C825(1)025AS	3.0	6	
10.0	C	T340C106(1)025AS	3.5	6	
12.0	C	T340C126(1)025AS	3.5	6	3.0
15.0	C	T340C156(1)025AS	4.0	6	
18.0	D/F	T340(2)186(1)025AS	5.0	6	2.0
22.0	D/F	T340(2)226(1)025AS	5.5	6	
27.0	D/F	T340(2)276(1)025AS	7.0	6	1.5
33.0	D/F	T340(2)336(1)025AS	8.0	6	
39.0	D/F	T340(2)396(1)025AS	10.0	6	
47.0	D/E/F	T340(2)476(1)025AS	10.0	6	1.3
68.0	E	T340E686(1)025AS	10.0	6	0.9
35 VOLT RATING AT 85°C — 23 VOLT AT 125°C					
0.1	A	T340A104(1)035AS	1.0	6	220.0
0.15	A	T340A154(1)035AS	1.0	6	150.0
0.22	A	T340A224(1)035AS	1.0	6	100.0
0.33	A	T340A334(1)035AS	1.0	6	75.0
0.47	A	T340A474(1)035AS	1.0	6	50.0
0.68	A	T340A684(1)035AS	1.0	6	36.0
1.0	A	T340A105(1)035AS	1.0	6	25.0
1.2	B	T340B125(1)035AS	1.0	6	15.0
1.5	B	T340B155(1)035AS	1.0	6	
1.8	B	T340B185(1)035AS	1.0	6	11.0
2.2	B	T340B225(1)035AS	1.0	6	
2.7	B	T340B275(1)035AS	1.0	6	
3.3	B/C	T340(2)335(1)035AS	1.0	6	7.5

(1) To complete KEMET Part Number, insert M — ±20%, K — ±10%, or J — ±5% for capacitance tolerance as shown in T340 ordering information.

(2) To complete KEMET Part Number, insert letter "C" for 5.0 mm (.197") lead spacing, "D" for 10.0 mm (.394") lead spacing, "E" for 10.0 mm (.394") lead spacing or "F" for 5.0 mm (.197") lead spacing. See page 53 for outline drawings.

Bold face lines indicate popular part types and values.

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

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	KEMET PART NUMBER	MAX. DC LEAKAGE μA@25°C	MAX. DISSIPATION FACTOR %@25°C, 120 HZ	MAX IMPEDANCE Ω@ 10 kHz
35 VOLT RATING AT 85°C — 23 VOLT AT 125°C (Cont'd)					
3.9	C	T340C395(1)035AS	1.0	6	
4.7	C	T340C475(1)035AS	2.5	6	5.5
5.6	C	T340C565(1)035AS	2.5	6	
6.8	C	T340C685(1)035AS	3.0	6	4.2
8.2	C	T340C825(1)035AS	4.0	6	
10.0	C	T340(2)106(1)035AS	4.0	6	2.8
12.0	D/F	T340(2)126(1)035AS	5.0	6	
15.0	D/F	T340(2)156(1)035AS	5.0	6	2.2
18.0	D/F	T340(2)186(1)035AS	8.0	6	
22.0	D/F	T340(2)226(1)035AS	8.0	6	1.9
27.0	D/F	T340(2)276(1)035AS	10.0	6	
33.0	D/E/F	T340(2)336(1)035AS	10.0	6	1.4
47.0	E	T340E476(1)035AS	10.0	6	1.1
40 VOLT RATING AT 85°C — 32 VOLT AT 100°C					
0.1	A	T340A104(1)040AS	1.0	6	200.0
0.15	A	T340A154(1)040AS	1.0	6	140.0
0.22	A	T340A224(1)040AS	1.0	6	95.0
0.33	A	T340A334(1)040AS	1.0	6	70.0
0.47	A	T340A474(1)040AS	1.0	6	46.0
0.68	A	T340A684(1)040AS	1.0	6	34.0
1.0	A	T340A105(1)040AS	1.0	6	23.0
1.5	B	T340B155(1)040AS	1.0	6	14.0
2.2	B	T340B225(1)040AS	1.7	6	10.0
3.3	C	T340C335(1)040AS	2.3	6	7.0
4.7	C	T340C475(1)040AS	3.0	6	5.0
6.8	C	T340C685(1)040AS	3.5	6	3.9
10.0	D	T340D106(1)040AS	4.5	6	2.6
15.0	D	T340D156(1)040AS	6.0	6	2.0
22.0	D	T340D226(1)040AS	9.0	6	1.7
33.0	E	T340E336(1)040AS	10.0	6	1.3
47.0	E	T340E476(1)040AS	10.0	6	1.0
50 VOLT RATING AT 85°C — 33 VOLT AT 125°C					
0.1	A	T340A104(1)050AS	1.0	6	220.0
0.15	A	T340A154(1)050AS	1.0	6	150.0
0.22	A	T340A224(1)050AS	1.0	6	100.0
0.33	A	T340A334(1)050AS	1.0	6	75.0
0.39	B	T340B394(1)050AS	1.0	6	
0.47	B	T340B474(1)050AS	1.0	6	50.0
0.56	B	T340B564(1)050AS	1.0	6	
0.68	B	T340B684(1)050AS	1.0	6	36.0
0.82	B	T340B824(1)050AS	1.0	6	
1.0	B	T340B105(1)050AS	1.0	6	25.0
1.2	B	T340B125(1)050AS	1.0	6	
1.5	B/C	T340(2)155(1)050AS	1.1	6	15.0
1.8	B	T340B185(1)050AS	1.1	6	
2.2	B/C	T340(2)225(1)050AS	1.5	6	11.0
2.7	C	T340C275(1)050AS	1.5	6	
3.3	C/D	T340(2)335(1)050AS	2.5	6	7.5
3.9	C	T340C395(1)050AS	3.0	6	
4.7	C/D	T340(2)475(1)050AS	3.5	6	5.5
5.6	C	T340C565(1)050AS	4.0	6	
6.8	D/F	T340(2)685(1)050AS	5.0	6	4.0
8.2	D/F	T340(2)825(1)050AS	6.0	6	
10.0	D/F	T340(2)106(1)050AS	7.0	6	2.8
12.0	D/F	T340(2)126(1)050AS	8.0	6	
15.0	D/F	T340(2)156(1)050AS	9.0	6	2.2
18.0	D/F	T340(2)186(1)050AS	10.0	6	
22.0	E	T340E226(1)050AS	10.0	6	1.7

(1) To complete KEMET Part Number, insert M — ±20%, K — ±10%, or J — ±5% for capacitance tolerance as shown in T340 ordering information.

(2) To complete KEMET Part Number, insert letter "C" for 5.0 mm (.197") lead spacing, "D" for 10.0 mm (.394") lead spacing, "E" for 10.0 mm (.394") lead spacing or letter "F" for 5.0 mm (.197") lead spacing. See page 53 for outline drawings.

Bold face lines indicate popular part types and values.

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



TANTALUM MOLDED / RADIAL — MIL-C-49137/6

T370/T378 (CX06) MIL-PRF-49137/6 SERIES

The KEMET Micron Series is available in a variety of case styles and sizes. They are designed to operate from -55°C to +85°C at full voltage and to +125°C with derating. Typical applications include use in bypass coupling, filtering, and timing circuits.

The KEMET Micron Series is qualified under MIL-PRF-49137/6 as military styles CX06 (T378 Series).

The KEMET T370 Series is encapsulated in a molded gold color epoxy. This encasement technique allows maximum utilization of circuit board real estate with precisely centered leads in a microminiature case.

These molded packages also provide significant improvements in overall dimensional consistency as well as lead wires precisely spaced to within .010 inches (.25mm).

With our new molded packaging design, these capacitors can now be marked using our laser printing technique. The KEMET laser marking system ensures legibility and permanency while offering a complete alphanumeric print format. Laser print meets all requirements of the Resistance to Solvents Test, method 215 of MIL-STD-202.

PERFORMANCE CHARACTERISTICS

- **CAPACITANCE/VOLTAGE RANGE:**
T370 Series: 0.68-220 μ F, 3-35 Volts.
T378 Series: 2.2-220 μ F, 3-35 Volts.
- **CAPACITANCE TOLERANCE:** Available in standard EIA nominal values with $\pm 20\%$ tolerance standard, +40% -20%, $\pm 10\%$ and $\pm 5\%$ are also available.
- **DISSIPATION FACTOR:** Maximum DF limits are shown in corresponding series part number listings on page 60. See Application Notes Section, page 76 for additional information.
- **DC LEAKAGE CURRENT:** Maximum leakage values at 25° are shown in part number listings, page 60. See Application Notes Section, page 76 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, pages 78 for description. Reference ESR values are listed in table below.
- **AC RIPPLE VOLTAGE:** Permissible AC ripple volt-

T370 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 T370 Series product.)

Cap. μ F	6 Volt	10 Volt	15 Volt	20 Volt	25 Volt	35 Volt
0.68						10.0
1.00						8.0
1.50						6.0
2.20					6.0	5.0
3.30				5.5	5.0	4.0
4.70				4.5	4.0	3.0
6.80		6.0		3.6	3.1	2.5
10.0	6.0	5.0		2.9	2.5	2.0
15.0	5.0	3.7	2.5	2.3	2.0	1.6
22.0	3.7	2.7	2.0	1.8	1.5	1.3
33.0	3.0	2.1	1.6	1.4	1.2	
47.0	2.0	1.7	1.3	1.2		
68.0	1.8	1.3	1.0			
100.0	1.6	1.0				
150.0	0.9					

age is related to the ESR of the capacitor and the power dissipation capabilities of a particular case size. Thermal capacities for the various case sizes have been determined and are listed in Table below. For additional description see page 78.

ENVIRONMENTAL CONSIDERATIONS:

Case Size	Watts
C	.070
D	.080
E	.090
F	.100

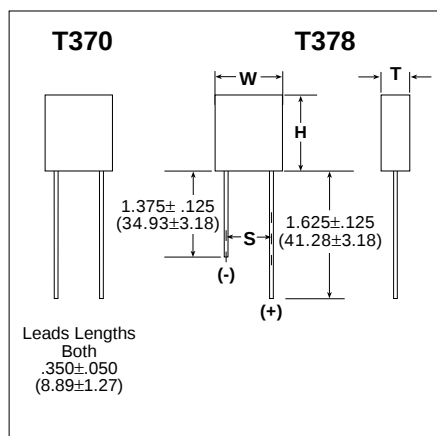
Maximum Power Dissipation Capability @ 25°C

- A. Shock Test: MIL-STD-202, Method 213 Condition 1.
- B. Thermal Shock, MIL-STD-202, Method 107.
- C. Moisture Resistance: MIL-STD-202, Method 106.
- D. Solderability: MIL-STD-202, Method 208.

For additional Environmental Test Information see pages 80, 81 and 82.

- **LEAD MATERIAL:** Solder coated nickel per MIL-STD1266, type N32.
- **LEAD TAPE and REEL:** Reeling per specification RS-468. See pages 72 and 74 for additional information.

CAPACITOR OUTLINE DRAWING



DIMENSIONS - INCHES (MILLIMETER)

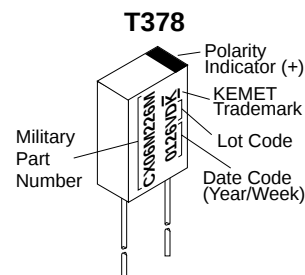
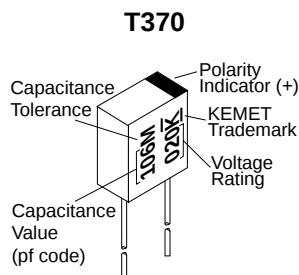
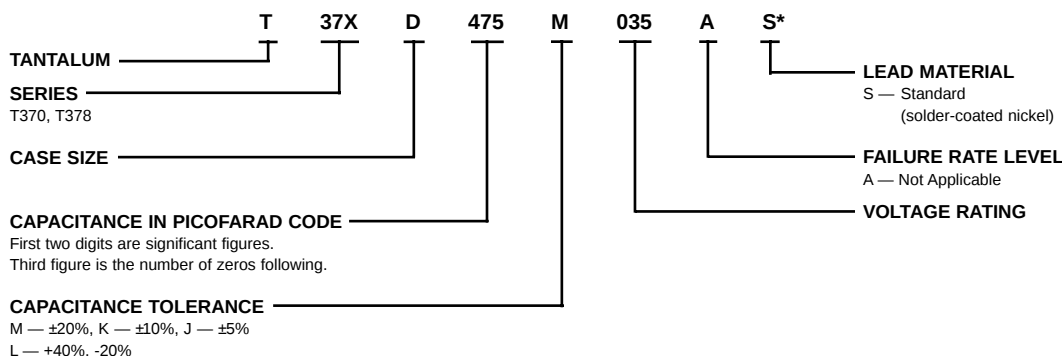
CASE SIZE	H MAX.	W MAX.	T MAX.	S LEAD SPACING	LEAD DIAMETER ± .001 (.03)
*C	.225 (5.72)	.185 (4.70)	.075 (1.91)	.150 ± .010 (3.81 ± .25)	.016 (.41)
D	.290 (7.37)	.220 (5.59)	.110 (2.79)	.180 ± .010 (4.57 ± .25)	.016 (.41)
E	.310 (7.87)	.230 (5.84)	.130 (3.30)	.200 ± .010 (5.08 ± .25)	.016 (.41)
F	.475 (12.07)	.375 (9.53)	.150 (3.81)	.300 ± .010 (7.62 ± .25)	.016 (.41)

*C case size T370 style only.

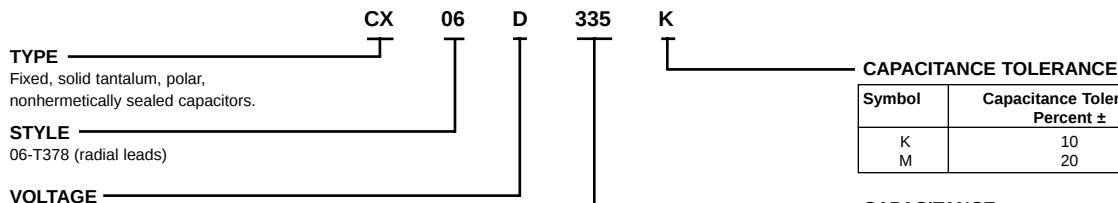
CAPACITOR MARKING

INDUSTRIAL PRODUCT

MILITARY PRODUCT

ORDERING INFORMATION
KEMET PART NUMBER

*Part Number Example: T370D475M035AS (14 digits – no spaces)

MIL-PRF-49137/6 PART NUMBER
CX06(T378) STYLE

Symbol	Rated (85°C) Volts, dc	Surge (85°C) Volts, dc
A	2	2.6
B	3	4
C	4	5
D	6	8
F	10	13
H	15	20
J	20	26
K	25	32
M	35	46

CAPACITANCE

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.



TANTALUM MOLDED / RADIAL — MIL-PRF-49137/6

T370/T378 (CX06) SERIES

RATINGS & PART NUMBER REFERENCE

CAPACITANCE μF	CASE SIZE	INDUSTRIAL PRODUCT T370 PART NO.	MILITARY PRODUCT		DC LEAKAGE μA@25°C MAXIMUM	DISSIPATION FACTOR %@25°C 120HZ MAXIMUM
			CX06 PART NO.	T378 PART NO.		
3 VOLT RATING AT 85°C—2.0 VOLT RATING AT 125°C						
220.0	F	T370F227(1)003AS	CX06B227(2)	T378F227(3)003AS	9.0	15
4 VOLT RATING AT 85°C—2.7 VOLT RATING AT 125°C						
15.0	C	T370C156(1)004AS	CX06C476(2) CX06C686(2)	T378D476(3)004AS	1.0	8
47.0	D	T370D476(1)004AS		T378D476(3)004AS	2.0	8
68.0	E	T370E686(1)004AS		T378E686(3)004AS	3.0	8
6 VOLT RATING AT 85°C—4.0 VOLT RATING AT 125°C						
10.0	C	T370C106(1)006AS	CX06D336(2) CX06D476(2) CX06D157(2)	T378D336(3)006AS	1.0	6
33.0	D	T370D336(1)006AS		T378D336(3)006AS	2.0	6
47.0	E	T370E476(1)006AS		T378E476(3)006AS	3.0	6
150.0	F	T370F157(1)006AS		T378F157(3)006AS	9.0	10
10 VOLT RATING AT 85°C—7.0 VOLT RATING AT 125°C						
6.8	C	T370C685(1)010AS	CX06F226(2) CX06F336(2) CX06F107(2)	T378D226(3)010AS	1.0	6
22.0	D	T370D226(1)010AS		T378E226(3)010AS	2.0	6
33.0	E	T370E336(1)010AS		T378E336(3)010AS	3.0	6
100.0	F	T370F107(1)010AS		T378F107(3)010AS	9.0	8
15 VOLT RATING AT 85°C—10 VOLT RATING AT 125°C						
15.0	D	T370D156(1)015AS	CX06H156(2)	T378D156(3)015AS	2.0	6
22.0	E	T370E226(1)015AS	CX06H226(2)	T378E226(3)015AS	3.0	6
68.0	F	T370F686(1)015AS	CX06H686(2)	T378F686(3)015AS	9.0	8
20 VOLT RATING AT 85°C—13 VOLT RATING AT 125°C						
3.3	C	T370C335(1)020AS	CX06J106(2) CX06J156(2) CX06J476(2)	T378D106(3)020AS T378E156(3)020AS T378F476(3)020AS	1.0	6
4.7	C	T370C475(1)020AS			1.0	6
10.0	D	T370D106(1)020AS			2.0	6
15.0	E	T370E156(1)020AS			3.0	6
47.0	F	T370F476(1)020AS			9.0	8
25 VOLT RATING AT 85°C—17 VOLT RATING AT 125°C						
2.2	C	T370C225(1)025AS	CX06K685(2) CX06K106(2) CX06K336(2)	T378D685(3)025AS T378E106(3)025AS T378F336(3)025AS	1.0	6
6.8	D	T370D685(1)025AS			2.0	6
10.0	E	T370E106(1)025AS			3.0	6
33.0	F	T370F336(1)025AS			9.0	6
35 VOLT RATING AT 85°C—23 VOLT RATING AT 125°C						
0.68	C	T370C684(1)035AS	CX06M225(2) CX06M335(2) CX06M475(2) CX06M685(2) CX06M106(2) CX06M156(2) CX06M226(2)	T378D225(3)035AS T378D335(3)035AS T378D475(3)035AS T378E685(3)035AS T378F106(3)035AS T378F156(3)035AS T378F226(3)035AS	1.0	6
1.0	C	T370C105(1)035AS			1.0	6
1.5	C	T370C155(1)035AS			1.0	6
2.2	D	T370D225(1)035AS			2.0	6
3.3	D	T370D335(1)035AS			2.0	6
4.7	D	T370D475(1)035AS			2.0	6
6.8	E	T370E685(1)035AS			3.0	6
10.0	F	T370F106(1)035AS			9.0	6
15.0	F	T370F156(1)035AS			9.0	6
22.0	F	T370F226(1)035AS			9.0	6

(1) To complete KEMET part number, insert capacitance tolerance symbol as follows: L = +40%, -20%; M = ±20%; K = ±10%; J = ±5%.

(2) To complete military part number, insert capacitance tolerance symbol as follows: M = ±20%; K = ±10%.

(3) To complete KEMET part number, insert capacitance tolerance symbol as follows: M = ±20%; K = ±10%.

Mouser Electronics

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[T322D226M020AT](#)