

# KEMET Tantalum Chip Capacitors



## KEMET T491 SERIES SOLID TANTALUM CHIP CAPACITORS

KEMET's family of solid tantalum chip capacitors is designed and manufactured with the demanding requirements of surface mount technology in mind. These devices extend the advantages of solid tantalum technology to today's surface mount circuit applications. Complementing multilayer ceramic chip convenience with capacitance ratings through 1000 µF, tantalum chip capacitors permit circuit designers to take full advantage of the benefits of surface mount technology.

T491 series are industrial grade solid chip capacitors. The standard solder-coated terminations provide excellent wetting characteristics and compatibility with today's surface mount solder systems. The symmetrical terminations offer total compliance to provide the thermal and mechanical stress relief required in today's technology. Lead frame attachments to the tantalum pellet are made via a microprocessor-controlled welding operation, and a high temperature silver epoxy adhesive system. Standard packaging of these devices is tape and reel in accordance with EIA 481-1. This system provides perfect compatibility with all tape-fed placement units.

### Specifications:

- General Application Class:**  
Solid tantalum capacitors are usually applied in circuits where the AC component is small compared to the DC component. Typical uses include blocking, by-passing, decoupling, and filtering. They are also used in timing circuits. If two of these polar capacitors are connected "back-to-back" (i.e., negative-to-negative or positive-to-positive), the pair may be used in AC application (as a non-polar device).
- Operating Temperature Range:** -55°C to +125°C
- Non-Operating Temperature Range:** -55°C to +125°C  
Tantalum capacitors do not lose capacitance from the "de-forming" effect as do liquid-electrolytic capacitors. Storage at high temperature may cause a small, temporary increase in leakage current (measured under standard conditions), but the original value is usually restored within a few minutes after application of rated voltage.
- Capacitance:** 0.1µF to 1000µF  
Capacitance is measured at 120Hz, up to 1.0 volt rms maximum and up to 2.5 volts DC maximum, at +25°C. DC bias causes only a small reduction in capacitance up to about 2% when full rated voltage is applied.

### Features:

- Meets or Exceeds EIA Standard 535BAA2
- Taped and Reeled per EIA 481-1
- Symmetrical, Compliant Terminations
- Optional Gold-plated Terminations
- Laser-marked case
- 100% Surge current test on C, D, X sizes

- Tolerance: ±10%, ±20%
- Extended Range Values



RoHS Compliant

### Application Note:

- A higher voltage capacitor may be used in a lower voltage application.

Dimensions mm and (IN)					
Side View		Anode (+) End View		Cathode (-) End View	
Bottom View					
Standard					
Case Code	EIA Code	L	W	H	
A	3216-18	3.2 (.126)	1.6 (.063)	1.6 (.063)	
B	3528-21	3.5 (.138)	2.8 (.110)	1.9 (.075)	
C	6032-28	6.0 (.236)	3.2 (1.26)	2.5 (.098)	
D	7343-31	7.3 (.287)	4.3 (1.69)	2.8 (.110)	
X	7343-43	7.3 (.287)	4.3 (1.69)	4.0 (.157)	
E	7260-38	7.3 (.287)	6.0 (.236)	3.6 (.142)	

Notes: 1. Metric dimensions govern. 2. Mil-C-55365/8 Specified Dimensions

For case sizes, tolerances, voltages, values and optional features not in the Mouser catalog, please contact a Mouser Sales Representative.

For quantities of 500 and up, call for quote.

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MOUSER STOCK NO.	KEMET Part Number	Value (µF)	Case Code	Tol.±	Price Each		7 Inch Reel Qty.	Price Per Piece
					1	100		
<b>4 Volt Rating @ 85°C (2.7 Volt Rating @ 125°C)</b>								
80-T491A335K004	T491A335K004AT	3.3	A	10%	.18	.16	2000	.08
80-T491A475K004	T491A475K004AT	4.7	A	10%	.18	.16	2000	.08
80-T491A685K004	T491A685K004AT	6.8	A	10%	.18	.16	2000	.08
80-T491B106K004	T491B106K004AT	10	B	10%	.26	.23	2000	.11
80-T491A106K004	T491A106K004AT	10	A	10%	.18	.16	2000	.08
80-T491B156K004	T491B156K004AT	15	B	10%	.26	.23	2000	.11
80-T491A156K004	T491A156K004AT	15	A	10%	.18	.16	2000	.08
80-T491B226K004	T491B226K004AT	22	B	10%	.26	.23	2000	.11
80-T491B336K004	T491B336K004AT	33	B	10%	.27	.24	2000	.12
80-T491A336K004	T491A336K004AT	33	A	10%	.22	.19	2000	.10
80-T491A476M004	T491A476M004AT	47	A	20%	.35	.32	2000	.15
80-T491B476K004	T491B476K004AT	47	B	10%	.35	.32	2000	.15
80-T491C476K004	T491C476K004AT	47	C	10%	.36	.32	500	.18
80-T491D686K004	T491D686K004AT	68	D	10%	.60	.54	500	.30
80-T491A686K004	T491A686K004AT	68	A	10%	.50	.45	2000	.22
80-T491B107M004	T491B107M004AT	100	B	20%	.43	.38	2000	.19
80-T491A107M004	T491A107M004AT	100	A	20%	.48	.43	2000	.21
80-T491C107K004	T491C107K004AT	100	C	10%	.48	.43	500	.24
80-T491D107K004	T491D107K004AT	100	D	10%	.60	.54	500	.30
80-T491D157K004	T491D157K004AT	150	D	10%	.60	.54	500	.30
80-T491B157M004	T491B157M004AT	150	B	20%	.93	.83	2000	.41
80-T491D337K004	T491D337K004AT	330	D	10%	.92	.82	500	.46
80-T491D477K004	T491D477K004AT	470	D	10%	1.27	1.14	500	.63
80-T491D687M004	T491D687M004AT	680	D	20%	4.63	4.16	500	2.31
80-T491E108M004	T491E108M004AT	1000	E	20%	9.50	8.55	500	4.75
80-T491X108M004	T491X108M004AT	1000	X	20%	6.00	5.40	500	3.00
<b>6 Volt Rating @ 85°C (4 Volt Rating @ 125°C)</b>								
80-T491A225K006	T491A225K006AT	2.2	A	10%	.18	.16	2000	.08
80-T491A335K006	T491A335K006AT	3.3	A	10%	.18	.16	2000	.08
80-T491A475K006	T491A475K006AT	4.7	A	10%	.18	.16	2000	.08
80-T491B685K006	T491B685K006AT	6.8	B	10%	.26	.23	2000	.11
80-T491A106K006	T491A106K006AT	10	A	10%	.15	.14	2000	.07
80-T491B106K006	T491B106K006AT	10	B	10%	.20	.18	2000	.09
80-T491A156K006	T491A156K006AT	15	A	10%	.19	.17	2000	.08
80-T491B226K006	T491B226K006AT	22	B	10%	.24	.22	2000	.11
80-T491C226K006	T491C226K006AT	22	C	10%	.33	.30	500	.17
80-T491B336K006	T491B336K006AT	33	B	10%	.30	.27	2000	.13
80-T491C336K006	T491C336K006AT	33	C	10%	.36	.32	500	.18
80-T491B476K006	T491B476K006AT	47	B	10%	.33	.30	2000	.15
80-T491C476K006	T491C476K006AT	47	C	10%	.36	.32	500	.18
80-T491D686K006	T491D686K006AT	68	D	10%	.54	.49	500	.27
80-T491C686K006	T491C686K006AT	68	C	10%	.45	.40	500	.22
80-T491B686K006	T491B686K006AT	68	B	10%	.43	.38	2000	.19
80-T491C107K006	T491C107K006AT	100	C	10%	.45	.41	500	.23
80-T491D107K006	T491D107K006AT	100	D	10%	.54	.49	500	.27
80-T491B107M006	T491B107M006AT	100	B	20%	.48	.43	2000	.21
80-T491D157K006	T491D157K006AT	150	D	10%	.66	.59	500	.33
80-T491D227K006	T491D227K006AT	220	D	10%	.86	.77	500	.43
80-T491X227K006	T491X227K006AT	220	X	10%	1.65	1.49	500	.83
80-T491D337K006	T491D337K006AT	330	D	10%	1.21	1.09	500	.61
80-T491X337K006	T491X337K006AT	330	X	10%	2.02	1.81	500	1.01
80-T491X477K006	T491X477K006AT	470	X	10%	2.39	2.15	500	1.19
80-T491E687M006	T491E687M006AT	680	E	20%	9.50	8.55	500	4.75
<b>10 Volt Rating @ 85°C (7 Volt Rating @ 125°C)</b>								
80-T491A155K010	T491A155K010AT	1.5	A	10%	.18	.16	2000	.08
80-T491A225K010	T491A225K010AT	2.2	A	10%	.15	.14	2000	.07
80-T491A335K010	T491A335K010AT	3.3	A	10%	.16	.14	2000	.07
80-T491A475K010	T491A475K010AT	4.7	A	10%	.15	.14	2000	.07
80-T491B475K010	T491B475K010AT	4.7	B	10%	.20	.18	2000	.09
80-T491B475M010	T491B475M010AT	4.7	B	20%	.20	.18	2000	.09
80-T491A685K010	T491A685K010AT	6.8	A	10%	.16	.14	2000	.07
80-T491B685K010	T491B685K010AT	6.8	B	10%	.22	.19	2000	.10
80-T491B685M010	T491B685M010AT	6.8	B	20%	.22	.19	2000	.10
80-T491A106K010	T491A106K010AT	10	A	10%	.16	.14	2000	.07
80-T491B106K010	T491B106K010AT	10	B	10%	.20	.18	2000	.09

MOUSER STOCK NO.	KEMET Part Number	Value (µF)	Case Code	Tol.±	Price Each		7 Inch Reel Qty.	Price Per Piece
					1	100		
<b>10 Volt Rating @ 85°C (7 Volt Rating @ 125°C) - Cont.</b>								
80-T491B106M010	T491B106M010AT	10	B	20%	.20	.18	2000	.09
80-T491C106K010	T491C106K010AT	10	C	10%	.36	.32	500	.18
80-T491B156K010	T491B156K010AT	15	B	10%	.24	.22	2000	.11
80-T491A156K010	T491A156K010AT	15	A	10%	.18	.16	2000	.08
80-T491C156K010	T491C156K010AT	15	C	10%	.33	.30	500	.17
80-T491C156M010	T491C156M010AT	15	C	20%	.33	.30	500	.17
80-T491A226M010	T491A226M010AT	22	A	20%	.24	.22	2000	.11
80-T491B226K010	T491B226K010AT	22	B	10%	.27	.24	2000	.12
80-T491B226M010	T491B226M010AT	22	B	20%	.27	.24	2000	.12
80-T491C226K010	T491C226K010AT	22	C	10%	.32	.28	500	.16
80-T491C226M010	T491C226M010AT	22	C	20%	.32	.28	500	.16
80-T491B336K010	T491B336K010AT	33	B	10%	.33	.30	2000	.15
80-T491C336K010	T491C336K010AT	33	C	10%	.36	.32	500	.18
80-T491C336M010	T491C336M010AT	33	C	20%	.36	.32	500	.18
80-T491B476M010	T491B476M010AT	47	B	20%	.43	.38	2000	.19
80-T491C476K010	T491C476K010AT	47	C	10%	.45	.40	500	.22
80-T491C476M010	T491C476M010AT	47	C	20%	.45	.40	500	.22
80-T491D476K010	T491D476K010AT	47	D	10%	.50	.45	500	.25
80-T491D476M010	T491D476M010AT	47	D	20%	.50	.45	500	.25
80-T491B686M010	T491B686M010AT	68	B	20%	.93	.83	2000	.41
80-T491D686K010	T491D686K010AT	68	D	10%	.54	.49	500	.27
80-T491C686K010	T491C686K010AT	68	C	10%	.55	.50	500	.28
80-T491D107K010	T491D107K010AT	100	D	10%	.58	.52	500	.29
80-T491D107M010	T491D107M010AT	100	D	20%	.58	.52	500	.29
80-T491D157K010	T491D157K010AT	150	D	10%	.86	.77	500	.43
80-T491X157K010	T491X157K010AT	150	X	10%	1.65	1.49	500	.83
80-T491D227K010	T491D227K010AT	220	D	10%	1.21	1.09	500	.61
80-T491X227K010	T491X227K010AT	220	X	10%	2.02	1.81	500	1.01
80-T491D337M010	T491D337M010AT	330	D	20%	2.50	2.25	500	1.25
80-T491X337K010	T491X337K010AT	330	X	10%	2.39	2.15	500	1.19
80-T491E477M010	T491E477M010AT	470	E	20%	9.50	8.55	500	4.75
<b>16 Volt Rating @ 85°C (10 Volt Rating @ 125°C)</b>								
80-T491A105K016	T491A105K016AT	1.0	A	10%	.15	.14	2000	.07
80-T491A155K016	T491A155K016AT	1.5	A	10%	.18	.16	2000	.08
80-T491A225K016	T491A225K016AT	2.2	A	10%	.15	.14	2000	.07
80-T491A335K016	T491A335K016AT	3.3	A	10%	.16	.14	2000	.07
80-T491B335K016	T491B335K016AT	3.3	B	10%	.22	.19	2000	.10
80-T491B335M016	T491B335M016AT	3.3	B	20%	.22	.19	2000	.10
80-T491A475K016	T491A475K016AT	4.7	A	10%	.16	.14	2000	.07
80-T491B475K016	T491B475K016AT	4.7	B	10%	.20	.18	2000	.09
80-T491B475M016	T491B475M016AT	4.7	B	20%	.20	.18	2000	.09
80-T491B685K016	T491B685K016AT	6.8	B	10%	.22	.19	2000	.10
80-T491A106K016	T491A106K016AT	10	A	10%	.17	.15	2000	.07
80-T491B106K016	T491B106K016AT	10	B	10%	.23	.20	2000	.10
80-T491B106M016	T491B106M016AT	10	B	20%	.23	.20	2000	.10