SOLID TANTALUM CHIP CAPACITORS KEN

T491 SERIES - Precision Molded Chip

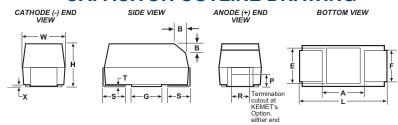
FEATURES

- Meets or Exceeds EIA Standard 535BAAC
- Taped and Reeled per EIA 481-1
- Symmetrical, Compliant Terminations
 Optional Gold-plated Terminations
 Laser-marked Case

- 100% Surge current test on C, D, E, U, V, X sizes
- Halogen Free Epoxy Capacitance: 0.1 μF to 1000 μF

- Tolerance: ±10%, ±20%
 - Voltage: 2.5-50 VDC
 - **Extended Range Values**
 - Low Profile Case Sizes
 - RoHS Compliance & Lead Free Terminations (See www.kemet.com for transition information)
 - Operating Temperature: -55°C to +125°C

CAPACITOR OUTLINE DRAWING



STANDARD T491 DIMENSIONS

Millimeters (inches)

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

Notes: 1. Metric dimensions govern

LOW PROFILE T491 DIMENSIONS

Millimeters (inches)

Case Size		Component									
KEMET	EIA	L*	W*	H max	F* ± 0.1 ± (.004)	S* ± 0.3 ± (.012)	X (Ref)	T (Ref)	A (Min)	G (Ref)	E (Ref)
R	2012-12	2.0 ± 0.2 (.079 ± .008)	1.3 ± 0.2 (.051 ± .008)	1.2 (.047)	0.9 (.035)	0.5 (.020)	0.05 (.002)	0.13 (.005)	0.8 (.031)	0.5 (.020)	0.8 (.031)
S	3216-12	3.2 ± 0.2 (.126 ± .008)	1.6 ± 0.2 (.063 ± .008)	1.2 (.047)	1.2 (.047)	0.8 (.031)	0.05 (.002)	0.13 (.005)	1.4 (.055)	1.1 (.043)	1.3 (.051)
Т	3528-12	3.5 ± 0.2 (.138 ± .008)	2.8 ± 0.2 (.110 ± .008)	1.2 (.047)	2.2 (.087)	0.8 (.031)	0.05 (.002)	0.13 (.005)	1.1 (.083)	1.8 (.071)	2.2 (.087)
U	6032-15	6.0 ± 0.3 (.236 ± .012)	3.2 ± 0.3 (.126 ± .012)	1.5 (.059)	2.2 (.087)	1.3 (.051)	0.05 (.002)	0.13 (.005)	3.1 (.122)	2.8 (.110)	2.4 (.094)
٧	7343-20	7.3 ± 0.3 (.287 ± .012)	4.3 ± 0.3 (.169 ± .012)	2.0 (.079)	2.4 (.094)	1.3 (.051)	0.05 (.002)	0.13 (.005)	3.8 (.150)	3.5 (.138)	3.5 (.138)

Notes: 1. Metric dimensions govern

T491 ORDERING INFORMATION

<u>T</u> <u>491</u>	<u>S</u> <u>685</u>	<u>K</u>	<u>004</u>	<u>A</u> <u>T</u>
Tantalum ———				Lead Material
Series 491 – Industrial				T = 100% Matte Tin (Sn) Plated* H = Standard Solder Coated (SnPb 5% Pb minimum) G = Gold Plated (A.B.C.D.X only
Case Size ————————————————————————————————————]			Failure Rate A = Not Applicable
Capacitance Picofarad Code First two digits represent significant figures. Third digit specifies number of zeros.				Voltage As Shown Capacitance Tolerance

 $M = \pm 20\%$ *Part number example: T491B105M035AT (14 digits - no spaces). See www.kemet.com for Pb Free transition.
** "S" Termination codes are converting from 90Sn/10 Pb to 100% tin finishes. Orders including "S" suffix termination codes do not quarantee Pb-free product. $K = \pm 10\%$

^{2. (}Ref) Dimensions provided for reference only * Mil-PRF-55365/8 Specified Dimensions

^{2. (}Ref) Dimensions provided for reference only
3. No dimensions provided for B,P or R because low profile cases do not have a bevel or a notch.



SOLID TANTALUM CHIP CAPACITORS

T491 SERIES—Precision Molded Chip

T491 TANTALUM CHIP CAPACITANCE VALUES Case Size by Capacitance and Voltage

Capaci	itance					ated Volta		5°C			
μF	Code	2.5	3	4	6	10	16	20	25	35	50
0.10	104									Α	Α
0.15	154									Α	A/B
0.22	224									Α	В
0.33	334								Α	Α	В
0.47	474								Α	A/B	B/C
0.68	684							Α	Α	A/B	B/C
1.0	105						Α	R/S/A	A/B	A/B	V/B/C
1.5	155					Α	Α	S/A	R/A/B	B/C	C/D
2.2	225				R/A	A/B	R/S/A	R/A/B	B/C	B/C	C/D
3.3	335			Α	Α	R/S/A	A/B	T/A/B	B/C	B/C	D
4.7	475			Α	S/A	A/B R/S	A/B/T	A/B/C	A/B/C	B/C/D	D
6.8	685			S/A	R/S A/B	S/T A/B	A/B/C	U/A/B/C	B/C	C/D	D/X
10.0	106			R/S A/B	R/S/T A/B	S/T/A B/C	B/C/U T/A	U/B/C	B/C/D	V/C/D	D/X
15.0	156			S/T A/B	S/T A/B/C	T/U A/B/C	U/A/B/C	C/D	C/D	C/D/X	Х
22.0	226			S/T A/B/C	U/T A/B/C	T/U A/B/C	U/B C/D	V/C/D	V/C/D	D/X	
33.0	336		Α	T/U A/B/C	T/U A/B/C	U/V/A T/B/C/D	U/C/D	V/C/D	D/X	Х	
47.0	476			T/U A/B/C	T/U/A B/C/D	U/V B/C/D	V/C/D	D	D/X	X/E	
68.0	686			U/A B/C/D	U/B C/D	U/V B/C/D	V/C/D	D/X	D/X		
100.0	107	T		T/U/A B/C/D	U/V B/C/D	V/C/D	V/D/X	D/X/E			
150.0	157			V/B C/D	V/C/D	V/C D/X	D/X				
220.0	227			V/B	V/C D/X	V/D/X	Х				
330.0	337			V/C/D	D/X	D/X/E					
470.0	477			D/X	D/X/E	X/E					
680.0	687			D/X	E						
1000.0	108			X/E							

SOLID TANTALUM CHIP CAPACITORS KEMET

T491 SERIES - Precision Molded Chip



T491 RATINGS & PART NUMBER REFERENCE

			JI NA	HING	<u>3 a r</u>
0			DC	DF %	$ESR\Omega$
Capaci-	Case	KEMET	Leakage	@ +25°C	@ +25°C
tance	Size	Part Number	μA @ 25°C	120 Hz	100 kHz
μF	0.20	r art rambor		Max	
	L	L <u></u>	Max		Max
	2.5 \	Volt Rating at +85°C (1.7 V	olt Rating at I	-125°C)	
100.0	Т	T491T107(1)2R5A(2)	2.5	24.0	3.9
220.0	D	T491D227(1)2R5A(2)	5.5	8.0	0.3
	3 \	Volt Rating at +85°C (2 Vol	t Rating at +1	25°C)	
#33.0	Α	T491A336(1)003A(2)	1.0	6.0	4.0
	4 V	olt Rating at +85°C (2.7 Vo	It Rating at +	125°C)	
3.3	Α	T491A335(1)004A(2)	0.5	6.0	8.0
4.7	Α	T491A475(1)004A(2)	0.5	6.0	8.0
6.8	Α	T491A685(1)004A(2)	0.5	6.0	6.0
6.8	S	T491S685(1)004A(2)	0.5	6.0	15.0
10.0	В	T491B106(1)004A(2)	0.5	6.0	3.5
10.0	Α	T491A106(1)004A(2)	0.5	6.0	6.0
#10.0	S	T491S106(1)004A(2)	0.5	6.0	15.0
#10.0	R	T491R106(1)004A(2)	0.5	8.0	10.0
15.0	В	T491B156(1)004A(2)	0.6	6.0	3.5
15.0	A	T491A156(1)004A(2)	0.6	6.0	4.0
15.0	T	T491T156(1)004A(2)	0.6	6.0	5.0
#15.0	S	T491S156(1)004A(2)	0.6	10.0	15.0
22.0	C B	T491C226(1)004A(2)	0.9	6.0	1.8
22.0 #22.0	A	T491B226(1)004A(2) T491A226(1)004A(2)	0.9 0.9	6.0 6.0	3.5 4.0
#22.0 #22.0	T	T491T226(1)004A(2)	0.9	6.0	4.0 5.0
22.0	Ś	T491S226(1)004A(2)	0.9	10.0	10.0
33.0	C	T491C336(1)004A(2)	1.3	6.0	1.8
33.0	ŭ	T491U336(1)004A(2)	1.3	6.0	1.8
33.0	B	T491B336(1)004A(2)	1.3	6.0	3.5
#33.0	Ā	T491A336(1)004A(2)	1.3	6.0	4.0
#33.0	Т	T491T336(1)004A(2)	1.3	8.0	5.0
47.0	С	T491C476(1)004A(2)	1.9	6.0	1.8
47.0	U	T491U476(1)004A(2)	1.9	6.0	1.8
#47.0	В	T491B476(1)004A(2)	1.9	6.0	3.0
#47.0	Α	T491A476M004A(2)	1.9	12.0	2.5
#47.0	T	T491T476M004A(2)	1.9	12.0	6.0
68.0	D	T491D686(1)004A(2)	2.7	6.0	0.8
68.0	С	T491C686(1)004A(2)	2.7	6.0	1.6
#68.0 #68.0	U B	T491U686(1)004A(2)	2.7 2.7	6.0 6.0	1.8 3.5
#68.0	A	T491B686(1)004A(2) T491A686(1)004A(2)	2.8	30.0	4.0
100.0	D	T491D107(1)004A(2)	4.0	8.0	0.8
#100.0	Č	T491C107(1)004A(2)	4.0	8.0	1.2
#100.0	ŭ	T491U107(1)004A(2)	4.0	10.0	1.8
#100.0	В	T491B107M004A(2)	4.0	8.0	0.9
†100.0	Α	T491A107M004A(2)	4.0	30.0	4.0
†100.0	Т	T491T107M004A(2)	4.0	30.0	5.0
150.0	D	T491D157(1)004A(2)	6.0	8.0	0.8
150.0	V	T491V157(1)004A(2)	6.0	8.0	0.7
#150.0	С	T491C157(1)004A(2)	6.0	8.0	1.2
†150.0	В	T491B157M004A(2)	6.0	12.0	2.0
#220.0	V	T491V227(1)004A(2)	8.8	8.0	0.7
#220.0	B D	T491B227M004A(2)	8.8 13.2	18.0	0.5
330.0 +330.0	V	T491D337(1)004A(2) T491V337(1)004A(2)	13.2	8.0 12.0	0.7 0.7
#330.0	č	T491C337(1)004A(2)	13.2	10.0	0.7
#470.0	X	T491X477(1)004A(2)	18.8	8.0	0.5
#470.0	Ď	T491D477(1)004A(2)	18.8	8.0	0.8
#680.0	X	T491X687(1)004A(2)	27.2	12.0	0.5
#680.0	D	T491D687(1)004A(2)	27.2	12.0	0.5
#1000.0	Х	T491X108(1)004A(2)	40.0	12.0	0.5
#1000.0	Е	T491E108M004A(2)	40.0	15.0	0.2
	**6.	.3 Volt Rating at +85°C (4 \	olt Rating at	+125°C)	
2.2	R	T491R225(1)006A(2)	0.5	6.0	25.0
2.2	Α	T491A225(1)006A(2)	0.5	6.0	8.0
3.3	Α	T491A335(1)006A(2)	0.5	6.0	8.0
4.7	Α	T491A475(1)006A(2)	0.5	6.0	6.0
4.7	S	T491S475(1)006A(2)	0.5	6.0	15.0
6.8	В	T491B685(1)006A(2)	0.5	6.0	3.5
6.8	A	T491A685(1)006A(2)	0.5	6.0	6.0
#6.8	S	T491S685(1)006A(2)	0.5	6.0	15.0
#6.8	R	T491R685(1)006A(2)	0.5	8.0	15.0
10.0 10.0	B A	T491B106(1)006A(2)	0.6	6.0 6.0	3.5 4.0
10.0	T	T491A106(1)006A(2) T491T106(1)006A(2)	0.6 0.6	6.0	5.0
#10.0	s	T491S106(1)006A(2)	0.6	10.0	15.0
#10.0	R	T491R106(1)006A(2)	0.6	8.0	10.0
,, 10.0		. 10 11 (100(1)000/1(2)	0.0	0.0	10.0

**6 Volt Rating at +85°C (4 Volt Rating at +125°C 15.0	DF % 2 +25°C 120 Hz Max	ESR Ω @ +25°C 100 kHz Max
15.0		IVIAX
#15.0 B T491B156(1)006A(2) 0.9 68 #15.0 A T491A156(1)006A(2) 0.9 68 #15.0 S T491S156(1)006A(2) 0.9 68 #15.0 S T491S156(1)006A(2) 0.9 68 #15.0 S T491S156(1)006A(2) 1.4 68 #15.0 S T491S156(1)006A(2) 1.5 68 #15.0 S T491S156(1)006A(2) 1.5 68 #15.0 S T491S156(1)006A(2) 1.1 68 #15.0 S T491S156(1)006A(2) 1.1 68 #15.0 S T491S157(1)006A(2) 1.2 8 #15.0 S T491S157(1)006A(2) 1.2	6.0	1.8
#15.0 A T491A156(1)006A(2) 0.9 (8) #15.0 T T491T156(1)006A(2) 0.9 1	6.0	3.5
#15.0 T T491T156(1)006A(2) 0.9 ft #15.0 S T491S156(1)006A(2) 0.9 ft 22.0 C T491C226(1)006A(2) 1.4 ft 22.0 B T491B226(1)006A(2) 1.4 ft #22.0 A T491B226(1)006A(2) 1.4 ft #22.0 T T491C236(1)006A(2) 1.4 ft #22.0 T T491C336(1)006A(2) 1.4 ft #22.0 T T491T226(1)006A(2) 1.4 ft #22.0 T T491T226(1)006A(2) 1.4 ft #22.0 T T491T226(1)006A(2) 1.4 ft #22.0 T T491T336(1)006A(2) 2.0 ft #33.0 B T491B336(1)006A(2) 2.0 ft #33.0 B T491B336(1)006A(2) 2.0 ft #33.0 B T491B336(1)006A(2) 2.0 ft #33.0 T T491T36(1)006A(2) 2.0 ft #33.0 T T491T36(1)006A(2) 2.0 ft #33.0 T T491T36(1)006A(2) 2.0 ft #47.0 D T491D476(1)006A(2) 2.9 ft #47.0 U T491D476(1)006A(2) 2.9 ft #47.0 U T491B476(1)006A(2) 2.9 ft #47.0 T T491B476(1)006A(2) 2.9 ft #47.0 B T491B476(1)006A(2) 2.9 ft #47.0 A T491A476(1)006A(2) 2.9 ft #47.0 T T491T476(1)006A(2) 3.0 1 #47.0 T T491B476(1)006A(2) 4.1 ft #68.0 D T491D686(1)006A(2) 4.1 ft #68.0 U T491B686(1)006A(2) 4.1 ft #68.0 U T491B686(1)006A(2) 4.1 ft #68.0 B T491B686(1)006A(2) 4.1 ft #68.0 C T491C107(1)006A(2) 6.0 ft #100.0 U T491U107(1)006A(2) 6.0 ft #100.0 U T491U27(1)006A(2) 9.0 ft #150.0 D T491D37(1)006A(2) 13.2 ft #220.0 X T491X37(1)006A(2) 13.2 ft #220.0 C T491C157(1)006A(2) 0.5 ft #220.0 C T491C106(1)010A(2) 0.5 ft #220.0 C T491C106(1)010A(2) 0.5 ft #220.0 C T491	6.0	3.5
22.0	6.0	5.0
22.0 U T491U226(1)006A(2) 1.4 66 22.0 B T491B226(1)006A(2) 1.4 66 22.0 A T491A226(1)006A(2) 1.4 66 22.0 T T491C236(1)006A(2) 1.4 66 33.0 C T491C336(1)006A(2) 2.0 66 33.0 U T491C336(1)006A(2) 2.0 66 33.0 U T491B336(1)006A(2) 2.0 66 33.0 B T491B336(1)006A(2) 2.0 66 23.0 B T491B336(1)006A(2) 2.0 66 24.0 C T491C336(1)006A(2) 2.0 11 25.0 C T491C336(1)006A(2) 2.0 11 26.0 C T491C476(1)006A(2) 2.9 66 27.0 C T491C476(1)006A(2) 2.9 66 28.0 D T491D686(1)006A(2) 3.0 17 28.0 C T491C686(1)006A(2) 4.1 66 28.0 D T491D686(1)006A(2) 6.0 66 29.0 D T491D686(1)006A(2) 6.0 66 20.0 D T491D686(1)006A(2) 6.0 66	15.0	10.0
22.0 B	6.0	1.8
#22.0 A T491A226(1)006A(2) 1.4 6 #22.0 T T491T226(1)006A(2) 1.4 6 33.0 C T491C336(1)006A(2) 2.0 6 33.0 U T491U336(1)006A(2) 2.0 6 #33.0 B T491B336(1)006A(2) 2.0 6 #33.0 A T491B336(1)006A(2) 2.0 1 #33.0 T T491T336(1)006A(2) 2.9 6 #47.0 D T491D476(1)006A(2) 2.9 6 #47.0 C T491C476(1)006A(2) 2.9 6 #47.0 U T491U476(1)006A(2) 2.9 6 #47.0 T T491B476(1)006A(2) 3.0 1 #47.0 T T491T476(1)006A(2) 3.0 1 #68.0 D T491D686(1)006A(2) 4.1 6 #68.0 B T491B686(1)006A(2) 4.1 6 #68.0 B T491B686(1)006A(2) 4.1 8 #68.0 B T491B686(1)006A(2) 4.1 8 #68.0 B T491B686(1)006A(2) 4.1 8 #68.0 B T491B686(1)006A(2) 6.0 8 #100.0 D T491D107(1)006A(2) 6.0 8 #100.0 D T491D107(1)006A(2) 6.0 8 #100.0 B T491D17(1)006A(2) 6.0 8 #100.0 B T491D17(1)006A(2) 6.0 8 #100.0 B T491B157(1)006A(2) 6.0 1 #100.0 V T491V157(1)006A(2) 6.0 1 #150.0 D T491D157(1)006A(2) 6.0 1 #150.0 D T491D157(1)006A(2) 6.0 1 #150.0 D T491D157(1)006A(2) 6.0 1 #150.0 C T491C157(1)006A(2) 9.0 8 #220.0 C T491C27M006A(2) 13.2 1 #220.0 C T491C27M006A(2) 13.2 1 #220.0 C T491C37(1)006A(2) 13.2 8 #220.0 C T491C37(1)006A(2) 13.2 6 #220.0 T491B337(1)006A(2) 13.2 6 #220.0 T491B337(1)006A(6.0	1.8
#22.0 T	6.0	3.5
33.0 C T491C336(1)006A(2) 2.0 6 33.0 U T491U336(1)006A(2) 2.0 6 33.0 B T491B336(1)006A(2) 2.0 6 #33.0 A T491A336(1)006A(2) 2.0 1 #33.0 T T491T336(1)006A(2) 2.0 1 #33.0 T T491T336(1)006A(2) 2.0 1 #37.0 D T491D476(1)006A(2) 2.9 6 47.0 C T491C476(1)006A(2) 2.9 6 #47.0 U T491U476(1)006A(2) 2.9 6 #47.0 T T491T476(1)006A(2) 2.9 6 #47.0 A T491A376M(0)6A(2) 2.9 6 #47.0 A T491A476M(0)6A(2) 2.9 6 #47.0 T T491T476(1)006A(2) 2.9 6 #47.0 T T491C476(1)006A(2) 3.0 1 *47.0 T T491T476(1)006A(2) 3.0 1 *47.0 T T491C486(1)006A(2) 3.0 1 *47.0 T T491C486(1)006A(2) 4.1 6 #68.0 D T491C686(1)006A(2) 4.1 6 #68.0 D T491C686(1)006A(2) 4.1 1 6 #68.0 D T491C686(1)006A(2) 4.1 1 6 #68.0 B T491B686(1)006A(2) 4.1 1 1 #68.0 A T491A686(1)006A(2) 4.1 6 #68.0 B T491B686(1)006A(2) 6.0 8 #100.0 U T491U107(1)006A(2) 6.0 8 #150.0 D T491D157(1)006A(2) 9.0 8 #150.0 U T491U107(1)006A(2) 9.0 8 #220.0 X T491S227(1)006A(2) 13.2 8 #220.0 U T491U227(1)006A(2) 13.2 8 #220.0 U T491U227(1)006A(2) 13.2 8 #220.0 U T491U227(1)006A(2) 13.2 8 #220.0 U T491B337(1)006A(2) 19.8 8 330.0 E T491E337(1)006A(2) 19.8 8 330.0 E T491E337(1)006A(2) 20.8 8 #33.3 R T491B335(1)010A(2) 0.5 6 #4.7 B T491B475(1)010A(2) 0.5 6 #4.7 B T491B475(1)010A(2) 0.5 6 #4.7 B T491B475(1)010A(2) 0.5 6 #4.7 B T491B485(1)010A(2) 0.5 6 #4.7 B T491B485(1)010A(2) 0.5 6 #4.7 R T491B485(1)010A(2) 0.7 6 #4.8 S T491B685(1)010A(2) 0.7 6 #	6.0 8.0	4.0 5.0
33.0	6.0	1.8
#33.0 B T491B336(1)006A(2) 2.0 18 #33.0 A T491A336(1)006A(2) 2.0 11 #33.0 T T491T336(1)006A(2) 2.0 11 #47.0 D T491D476(1)006A(2) 2.9 66 #47.0 C T491C476(1)006A(2) 2.9 66 #47.0 U T491D476(1)006A(2) 2.9 66 #47.0 U T491D476(1)006A(2) 2.9 66 #47.0 T T491C476(1)006A(2) 2.9 66 #47.0 A T491A476(1)006A(2) 2.9 66 #47.0 B T491B476(1)006A(2) 2.9 66 #47.0 A T491A476(1)006A(2) 2.9 66 #47.0 A T491A476(1)006A(2) 2.9 66 #47.0 A T491A476(1)006A(2) 3.0 1 #47.0 A T491A476(1)006A(2) 3.0 2 #47.0 T T491D686(1)006A(2) 3.0 1 #47.0 T T491D686(1)006A(2) 4.1 66 #68.0 D T491D686(1)006A(2) 4.1 66 #68.0 U T491C686(1)006A(2) 4.1 1 #68.0 B T491B686(1)006A(2) 4.1 1 #68.0 B T491B686(1)006A(2) 4.1 66 #68.0 A T491A686(1)006A(2) 5.0 3 100.0 D T491D107(1)006A(2) 6.0 6.0 #100.0 U T491V107(1)006A(2) 6.0 6.0 #100.0 U T491U107(1)006A(2) 6.0 6.0 #100.0 U T491D107(1)006A(2) 6.0 6.0 #100.0 U T491D107(1)006A(2) 6.0 8 #150.0 D T491D157(1)006A(2) 9.0 8 #150.0 D T491D157(1)006A(2) 9.0 8 #150.0 U T491V107(1)006A(2) 9.0 8 #150.0 V T491V107(1)006A(2) 9.0 8 #220.0 X T491X227(1)006A(2) 13.2 8 #220.0 C T491C157(1)006A(2) 13.2 8 #220.0 C T491C227M006A(2) 13.2 1 #220.0 V T491V27(1)006A(2) 13.2 1 #220.0 V T491V337(1)006A(2) 13.2 1 #220.0 V T491V337(1)006A(2) 13.2 1 #220.0 V T491V337(1)006A(2) 13.2 1 #220.0 V T491B1337(1)006A(2) 13.2 1 #220.0 V T491B1687(1)006A(2) 13.2 1 #220.0 V T491B25(1)010A(2) 0.5 66 #222 B T491B25(1)010A(2) 0.5 66 #222 B T491B685(1)010A(2) 0.5 66 #3.3 A T491A335(1)010A(2) 0.5 66 #4.7 A T491A475(1)010A(2) 0.5 66 #4.7 B T491B685(1)010A(2) 0.5 66 #4.7 A T491A475(1)010A(2) 0.5 66 #4.7 A T491A475(1)010A(2) 0.5 66 #4.7 B T491B685(1)010A(2) 0.7 66 #4.7 B T491B685(1)010A(2) 0.7 66 #4.7 B T4	6.0	1.8
#33.0 T	6.0	3.0
47.0 D T491D476(1)006A(2) 2.9 6 47.0 C T491C476(1)006A(2) 2.9 6 47.0 C T491C476(1)006A(2) 2.9 6 47.0 C T491C476(1)006A(2) 2.9 6 47.0 D T491D476(1)006A(2) 2.9 6 47.0 B T491B476(1)006A(2) 2.9 6 47.0 A T491B476(1)006A(2) 2.9 6 47.0 A T491B476(1)006A(2) 2.9 6 47.0 T T491D476(1)006A(2) 3.0 1 47.0 A T491A476(1)006A(2) 3.0 1 47.0 T T491D686(1)006A(2) 3.0 1 68.0 D T491D686(1)006A(2) 4.1 6 468.0 C T491C686(1)006A(2) 4.1 1 468.0 B T491B686(1)006A(2) 4.1 1 468.0 B T491B686(1)006A(2) 4.1 6 468.0 A T491A686(1)006A(2) 4.1 6 468.0 A T491A686(1)006A(2) 5.0 3 100.0 D T491D107(1)006A(2) 6.0 8 4100.0 C T491C107(1)006A(2) 6.0 8 4100.0 U T491D107(1)006A(2) 6.0 8 4100.0 U T491D107(1)006A(2) 6.0 1 4100.0 B T491B107(1)006A(2) 6.0 1 4100.0 C T491C107(1)006A(2) 6.0 1 4100.0 D T491D157(1)006A(2) 9.0 8 4150.0 D T491D157(1)006A(2) 9.0 8 4150.0 C T491C157(1)006A(2) 9.0 8 4220.0 X T491X227(1)006A(2) 13.2 8 4220.0 D T491D227(1)006A(2) 13.2 8 4220.0 C T491C227M006A(2) 13.2 1 4220.0 V T491V27(1)006A(2) 13.2 1 470.0 D T491D337(1)006A(2) 13.2 1 470.0 E T491E337(1)006A(2) 19.8 8 330.0 E T491E337(1)006A(2) 19.8 8 330.0 E T491E337(1)006A(2) 19.8 8 470.0 X T491X377(1)006A(2) 19.8 8 470.0 E T491E687M006A(2) 19.8 8 470.0 E T491E687M006A(2) 19.8 8 470.0 E T491E687M006A(2) 10.5 6 68.0 E T491E687M006A(2) 0.5 6 68.0 T491B685(1)010A(2) 0.7 6 68.0 T491B685(1)010A(2) 0.7	12.0	2.5
#47.0 C T491C478(1)006A(2) 2.9 6 #47.0 U T491U476(1)006A(2) 2.9 6 #47.0 B T491B476(1)006A(2) 2.9 6 #47.0 T T491B476(1)006A(2) 3.0 1 *47.0 T T491A476M006A(2) 3.0 2 *68.0 D T491C686(1)006A(2) 4.1 6 #68.0 C T491C686(1)006A(2) 4.1 6 #68.0 B T491B486(1)006A(2) 4.1 1 #68.0 B T491B486(1)006A(2) 4.1 1 #68.0 B T491B486(1)006A(2) 4.1 6 #68.0 D T491D686(1)006A(2) 4.1 6 #68.0 B T491B486(1)006A(2) 4.1 6 #68.0 B T491B486(1)006A(2) 4.1 6 #68.0 C T491C686(1)006A(2) 4.1 6 #68.0 B T491B486(1)006A(2) 6.0 8 #100.0 D T491D107(1)006A(2) 6.0 8 #100.0 D T491D107(1)006A(2) 6.0 8 #100.0 U T491U107(1)006A(2) 6.0 8 #100.0 U T491U107(1)006A(2) 6.0 1 #100.0 D T491D17(1)006A(2) 6.0 1 #100.0 D T491D17(1)006A(2) 6.0 1 #150.0 D T491D17(1)006A(2) 9.0 8 #150.0 C T491C157(1)006A(2) 9.0 8 #150.0 U T491D157(1)006A(2) 9.0 8 #150.0 U T491D227(1)006A(2) 13.2 8 #220.0 U T491C227(1)006A(2) 13.2 8 #220.0 D T491D227(1)006A(2) 13.2 8 #220.0 C T491C27(1)006A(2) 13.2 8 #220.0 U T491V227(1)006A(2) 13.2 1 #220.0 U T491S337(1)006A(2) 13.2 1 #330.0 E T491B37(1)006A(2) 19.8 8 330.0 E T491B37(1)006A(2) 19.8 8 330.0 E T491B37(1)006A(2) 19.8 8 330.0 E T491B37(1)006A(2) 20.8 8 470.0 U T491V477(1)006A(2) 20.8 8 470.0 E T491E37(1)006A(2) 20.8 8 470.0 E T491E37(1)006A(2) 20.8 8 470.0 E T491E37(1)006A(2) 0.5 6 68.0 E T491E477(1)006A(2) 0.5 6 68.0 E T491B475(1)010A(2) 0.5 6 68.0 E T491B4855(1)010A(2) 0.5 6 68.0 E T491B485(1)010A(2) 0.5 6 68	12.0	6.0
#47.0 U T491U478(1)006A(2) 2.9 66 #47.0 B T491B476(1)006A(2) 2.9 66 147.0 A T491A476M006A(2) 3.0 1 147.0 T T491T476(1)006A(2) 3.0 2 68.0 D T491D686(1)006A(2) 4.1 66 #68.0 C T491C686(1)006A(2) 4.1 66 #68.0 U T491U686(1)006A(2) 4.1 67 #68.0 B T491B686(1)006A(2) 4.1 88 #68.0 A T491B686(1)006A(2) 4.1 88 #68.0 A T491B686(1)006A(2) 6.0 88 #68.0 A T491A686(1)006A(2) 6.0 88 #100.0 U T491U70(1)006A(2) 6.0 88 #100.0 U T491U70(1)006A(2) 6.0 88 #100.0 U T491U70(1)006A(2) 6.0 88 #100.0 U T491D170(1)006A(2) 6.0 88 #100.0 U T491D170(1)006A(2) 6.0 11 #100.0 B T491B107(1)006A(2) 6.0 11 #100.0 B T491B107(1)006A(2) 6.0 11 #150.0 U T491U57(1)006A(2) 9.0 88 #150.0 U T491U57(1)006A(2) 13.2 88 #150.0 U T491U57(1	6.0	0.8
#47.0 B T491B476(1)006A(2) 2.9 6 147.0 A T491A476M006A(2) 3.0 1 147.0 T T491T476(1)006A(2) 3.0 2 68.0 D T491D686(1)006A(2) 4.1 6 #68.0 C T491C686(1)006A(2) 4.1 1 #68.0 U T491B686(1)006A(2) 4.1 1 #68.0 B T491B686(1)006A(2) 4.1 1 #68.0 B T491B686(1)006A(2) 4.1 6 #68.0 A T491A686(1)006A(2) 5.0 3 100.0 D T491D17(1)006A(2) 6.0 6 #100.0 U T491C17(1)006A(2) 6.0 6 #100.0 U T491C17(1)006A(2) 6.0 8 #100.0 U T491D17(1)006A(2) 6.0 1 #100.0 U T491D17(1)006A(2) 6.0 8 #100.0 U T491D17(1)006A(2) 6.0 1 #100.0 D T491D17(1)006A(2) 6.0 1 #100.0 U T491D17(1)006A(2) 6.0 1 #150.0 D T491D157(1)006A(2) 9.0 8 #150.0 U T491C157(1)006A(2) 9.0 8 #150.0 U T491C157(1)006A(2) 9.0 8 #150.0 U T491C27(1)006A(2) 13.2 8 #220.0 X T491X227(1)006A(2) 13.2 8 #220.0 C T491C227M006A(2) 13.2 1 #220.0 V T491V227(1)006A(2) 13.2 1 #220.0 V T491V27(1)006A(2) 13.2 1 #330.0 D T491D337(1)006A(2) 13.2 1 #330.0 D T491B337(1)006A(2) 19.8 8 330.0 E T491E337(1)006A(2) 19.8 8 470.0 X T491X377(1)006A(2) 19.8 8 470.0 D T491D477M006A(2) 28.2 1 470.0 D T491D477M006A(2) 28.2 1 470.0 D T491B477M006A(2) 28.2 1 470.0 E T491E687M006A(2) 28.2 1 470.0 E T491E687M006A(2) 29.6 1 68.0 E T491E687M006A(2) 0.5 6 68.0 E T491B685(1)010A(2) 0.5 6 68.0 T491B685(1)010A(2) 0.7 6 68.0 T491B685(1)	6.0	1.6
147.0	6.0	1.8
*47.0 T	6.0	2.0
68.0 D T491D686(1)006A(2) 4.1 66 #68.0 C T491C686(1)006A(2) 4.1 66 #68.0 U T491C686(1)006A(2) 4.1 1 66 #68.0 B T491B686(1)006A(2) 4.1 1 86 #68.0 A T491A686(1)006A(2) 5.0 3 100.0 D T491D107(1)006A(2) 6.0 86 #100.0 U T491V107(1)006A(2) 6.0 86 #100.0 U T491V107(1)006A(2) 6.0 87 #100.0 U T491V107(1)006A(2) 6.0 87 #100.0 U T491D107(1)006A(2) 6.0 87 #100.0 D T491D107(1)006A(2) 9.0 87 #150.0 D T491D107(1)006A(2) 9.0 87 #150.0 C T491C107(1)006A(2) 9.0 87 #150.0 V T491V107(1)006A(2) 9.0 87 #150.0 C T491C107(1)006A(2) 9.0 87 #150.0 V T491V1006A(2) 9.0 87 #150.0 V T491V27(1)006A(2) 13.2 87 #220.0 V T491V27(1)006A(2) 13.2 87 #220.0 C T491C227M006A(2) 13.2 87 #220.0 V T491V227(1)006A(2) 13.2 87 #220.0 V T491V27(1)006A(2) 13.2 87 #220.0 V T491V27(1)006A(2) 13.2 10 #220.0 V T491D1006A(2) 13.2 10 #220.0 V T491D1006A(2) 13.2 10 #220.0 V T491V27(1)006A(2) 13.2 1	12.0 24.0	3.5 4.4
#68.0 C T491C686(1)006A(2) 4.1 1 6 6 6 6 8	6.0	0.8
#68.0 U T491U686(1)006A(2) 4.1 1 8	6.0	1.2
#68.0 B T491B686(1)006A(2) 4.1 8 #68.0 A T491A686(1)006A(2) 5.0 3 100.0 D T491D107(1)006A(2) 6.0 8 #100.0 V T491V107(1)006A(2) 6.0 8 #100.0 U T491C107(1)006A(2) 6.0 8 #100.0 B T491B107(1)006A(2) 6.0 1 #100.0 B T491B107(1)006A(2) 6.3 1 150.0 D T491D157(1)006A(2) 9.0 8 #150.0 C T491C157(1)006A(2) 9.0 8 #150.0 V T491V157(1)006A(2) 9.0 8 #150.0 V T491V157(1)006A(2) 9.0 8 #150.0 V T491V157(1)006A(2) 9.0 8 #220.0 X T491X227(1)006A(2) 13.2 8 #220.0 D T491D227(1)006A(2) 13.2 8 #220.0 C T491C227M006A(2) 13.2 1 #220.0 V T491V27(1)006A(2) 19.8 8 330.0 E T491E337(1)006A(2) 19.8 8 470.0 X T491X37(1)006A(2) 28.2 1 470.0 D T491D37(1)006A(2) 28.2 1 470.0 E T491E477(1)006A(2) 28.2 1 470.0 E T491E687M006A(2) 40.8 1 10 Volt Rating at +85°C (7 Volt Rating at +125°C 1.5 A T491A155(1)010A(2) 0.5 6 8 T491S335(1)010A(2) 0.5 6 1.5 A T491S335(1)010A(2) 0.5 6 1.5 A T491S335(1)010A(2) 0.5 6 1.5 A T491S335(1)010A(2) 0.5 6 1.6 B T491B475(1)010A(2) 0.5 6 1.7 A T491A475(1)010A(2) 0.5 6 1.7 A T491A685(1)010A(2) 0.5 6 1.7 A T491A685(1)010A(2) 0.5 6 1.7 A T491B685(1)010A(2) 0.5 6 1.7 A T491B685(1)010A(2) 0.5 6 1.7 A T491B685(1)010A(2) 0.7 6 1.0 C T491C106(1)010A(2) 0.7 6	10.0	1.8
#68.0 A T491A686(1)006A(2) 5.0 3 100.0 D T491D107(1)006A(2) 6.0 8 100.0 V T491V107(1)006A(2) 6.0 8 #100.0 C T491C107(1)006A(2) 6.0 8 #100.0 B T491B107(1)006A(2) 6.0 1 150.0 D T491D157(1)006A(2) 6.3 1 150.0 C T491C157(1)006A(2) 9.0 8 #150.0 V T491V157(1)006A(2) 9.0 8 #150.0 V T491C157(1)006A(2) 9.0 8 #150.0 V T491C157(1)006A(2) 9.0 8 #220.0 D T491D227(1)006A(2) 13.2 8 #220.0 D T491D227(1)006A(2) 13.2 8 #220.0 C T491C227(1)006A(2) 13.2 1 #220.0 D T491D227(1)006A(2) 13.2 1 #220.0 C T491C227M006A(2) 13.2 1 #220.0 V T491V227(1)006A(2) 13.2 1 #220.0 V T491S237(1)006A(2) 13.2 1 #220.0 V T491S337(1)006A(2) 19.8 8 330.0 E T491E337(1)006A(2) 20.8 8 470.0 D T491D37(1)006A(2) 20.8 8 470.0 D T491D37(1)006A(2) 20.8 8 470.0 E T491E477(1)006A(2) 29.6 1 680.0 E T491E687M006A(2) 29.6 1 680.0 E T491E687M006A(2) 40.8 1 10 Volt Rating at +85°C (7 Volt Rating at +125°C 1.5 A T491A155(1)010A(2) 0.5 6 2.2 B T491B225(1)010A(2) 0.5 6 2.2 B T491B335(1)010A(2) 0.5 6 3.3 A T491S335(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 4.7 B T491B475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 6.8 B T491B685(1)010A(2) 0.5 6 6.8 T T491E687(1)010A(2) 0.5 6 6.8 T T491E687(1)010A(2) 0.7 6 6.8 T T491E685(1)010A(2) 0.7 6 6.8 T T491E685(1)010A(2) 0.7 6 6.8 T T491B685(1)010A(2) 0.7 6 6.8 T T491E08(1)010A(2) 0.7 6 6.8 T T491E08(1)0	8.0	0.9
100.0	30.0	4.0
#100.0 C T491C107(1)006A(2) 6.0 8 #100.0 U T491D107(1)006A(2) 6.0 1 #100.0 B T491B107(1)006A(2) 6.3 1 #150.0 D T491D157(1)006A(2) 9.0 8 #150.0 V T491C157(1)006A(2) 13.2 8 #150.0 C T491C157(1)006A(2) 13.2 8 #150.0 C T491C157(1)006A(2) 13.2 8 #150.0 C T491C157(1)006A(2) 13.2 1 #150.0 C T491C157(1)006A(2) 19.8 8 #150.0 D T491D37(1)006A(2) 19.8 8 #150.0 D T491D37(1)006A(2) 20.8 8 #150.0 E T491E337(1)006A(2) 20.8 8 #150.0 E T491E37(1)006A(2) 20.8 8 #150.0 E T491E477(1)006A(2) 29.6 1 #150.0 E T491E477(1)006A(2) 29.6 1 #150.0 E T491E687M006A(2) 40.8 1 #150.0 E T491E25(1)010A(2) 0.5 6 #150.0 E T491B25(1)010A(2) 0.5 6 #150.0 E T491B335(1)010A(2) 0.7 6 #150.0 E T491B35(1)010A(2) 0.7 6 #150.0 E T491B35(1)010A(2) 0.7 6	8.0	0.8
#100.0 U T491U107(1)006A(2) 6.0 1 #100.0 B T491B107(1)006A(2) 6.3 1 150.0 D T491D157(1)006A(2) 9.0 8 #150.0 C T491C157(1)006A(2) 9.0 8 #150.0 V T491V157(1)006A(2) 9.0 8 #150.0 V T491V157(1)006A(2) 9.0 8 #150.0 V T491V27(1)006A(2) 13.2 8 #220.0 D T491D227(1)006A(2) 13.2 8 #220.0 C T491C227M006A(2) 13.2 1 #220.0 V T491V227(1)006A(2) 13.2 1 #220.0 V T491V227(1)006A(2) 13.2 1 #220.0 V T491V227(1)006A(2) 13.2 1 #220.0 V T491D237(1)006A(2) 13.2 1 #220.0 V T491V27(1)006A(2) 13.2 1 #220.0 V T491D237(1)006A(2) 19.8 8 #330.0 D T491D337(1)006A(2) 19.8 8 #330.0 D T491D337(1)006A(2) 19.8 8 #330.0 E T491E337(1)006A(2) 20.8 8 #470.0 X T491X477(1)006A(2) 28.2 1 #470.0 D T491D477M006A(2) 28.2 1 #470.0 E T491E877(1)006A(2) 29.6 1 #68.0 E T491E87M006A(2) 40.8 1 #10 Volt Rating at +85°C (7 Volt Rating at +125°C #470.0 E T491E87M006A(2) 40.8 1 #4.7 A T491A335(1)010A(2) 0.5 6 #3.3 A T491A335(1)010A(2) 0.5 6 #3.3 R T491S335(1)010A(2) 0.5 6 #4.7 B T491B475(1)010A(2) 0.5 6 #4.7 B T491B475(1)010A(2) 0.5 6 #4.7 A T491A475(1)010A(2) 0.5 6 #4.7 B T491B475(1)010A(2) 0.5 6 #4.7 A T491A475(1)010A(2) 0.5 6 #4.7 B T491B475(1)010A(2) 0.5 6 #4.7 R T491B475(1)010A(2) 0.5 6 #4.7 B T491B455(1)010A(2) 0.5 6 #4.7 R T491B475(1)010A(2) 0.5 6 #4.7 B T491B455(1)010A(2) 0.5 6 #4.7 R T491B475(1)010A(2) 0.5 6 #4.7 R T491B485(1)010A(2) 0.5 6 #4.8 B T491B685(1)010A(2) 0.5 6 #4.8 B T491B685(1)010A(2) 0.7 6 #4.8 S T491B685(1)010A(2) 0.7 6 #4.9 10.0 B T491B106(1)010A(2) 1.0 6	8.0	0.7
#100.0 B T491B107(1)006A(2) 6.3 1 150.0 D T491D157(1)006A(2) 9.0 8 #150.0 C T491C157(1)006A(2) 9.0 8 #150.0 V T491V157(1)006A(2) 9.0 8 #150.0 V T491V157(1)006A(2) 9.0 8 #220.0 X T491X227(1)006A(2) 13.2 8 #220.0 D T491D227(1)006A(2) 13.2 1 #220.0 V T491V27(1)006A(2) 19.8 8 #330.0 E T491E337(1)006A(2) 19.8 8 #330.0 E T491E337(1)006A(2) 19.8 8 #470.0 X T491X37(1)006A(2) 20.8 8 #470.0 E T491E37(1)006A(2) 28.2 1 #470.0 E T491E477(1)006A(2) 28.2 1 #70.0 E T491E687M006A(2) 40.8 1 #70.0 E T491E687M006A(2) 40.5 66 #70.0 E T491E687M006A(2) 40.5 66 #70.0 E T491E687M006A(2) 40.8 1 #70.0 E T491E06(1)010A(2) 40.5 66 #70.0 E T491E06(1)010A(2) 40.7 66 #70.0 E T491E06(1)010A(2) 40.0 60 #70.0 E T491E006(1)010A(2) 40.0 60	8.0	0.9
150.0 D	10.0	1.8
#150.0 C T491C157(1)006A(2) 9.0 8 #150.0 V T491V157(1)006A(2) 9.0 8 220.0 X T491V27(1)006A(2) 13.2 8 #220.0 D T491D227(1)006A(2) 13.2 8 #220.0 C T491C227(1)006A(2) 13.2 1 #220.0 V T491V227(1)006A(2) 13.2 1 #220.0 V T491V227(1)006A(2) 13.2 1 #220.0 V T491V227(1)006A(2) 13.2 1 #330.0 D T491D337(1)006A(2) 19.8 8 330.0 D T491D337(1)006A(2) 19.8 8 330.0 E T491E337(1)006A(2) 20.8 8 470.0 X T491X377(1)006A(2) 28.2 1 470.0 D T491D477M006A(2) 28.2 1 470.0 E T491E4377(1)006A(2) 28.2 1 470.0 E T491E477(1)006A(2) 29.6 1 680.0 E T491E687M006A(2) 40.8 1 10 Volt Rating at +85°C (7 Volt Rating at +125°C 1.5 A T491A155(1)010A(2) 0.5 6 2.2 B T491B225(1)010A(2) 0.5 6 3.3 A T491A335(1)010A(2) 0.5 6 3.3 A T491A335(1)010A(2) 0.5 6 4.7 A T491A335(1)010A(2) 0.5 6 4.7 B T491B475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 6.8 B T491B685(1)010A(2) 0.5 6 6.8 T T491E85(1)010A(2) 0.7 6 6.8 T T491T685(1)010A(2) 0.7 10 10.0 B T491B106(1)010A(2) 1.0 6	15.0	3.0 0.7
#150.0 V T491V157(1)006A(2) 9.0 8 220.0 X T491X227(1)006A(2) 13.2 8 #220.0 D T491D227(1)006A(2) 13.2 1 #220.0 C T491C227M006A(2) 13.2 1 #220.0 V T491V227(1)006A(2) 13.2 1 #220.0 V T491V227(1)006A(2) 13.2 1 #220.0 V T491V227(1)006A(2) 19.8 8 #220.0 D T491D337(1)006A(2) 19.8 8 #220.0 V T491D337(1)006A(2) 19.8 8 #220.0 D T491D337(1)006A(2) 19.8 8 #220.0 D T491D337(1)006A(2) 19.8 8 #220.0 D T491D337(1)006A(2) 20.8 8 #220.0 E T491E337(1)006A(2) 20.8 8 #220.0 E T491E37(1)006A(2) 28.2 1 #220.0 D T491D477M006A(2) 28.2 1 #220.0 D T491D477M006A(2) 28.2 1 #220.0 E T491E687M006A(2) 40.8 1 #220.0 E T491E325(1)010A(2) 0.5 6 #220.0 E T491E335(1)010A(2) 0.5 6 #220.0 E T491B225(1)010A(2) 0.5 6 #220.0 E T491B335(1)010A(2) 0.5 6 #220.0 E T491B335(1)010A(2) 0.5 6 #220.0 E T491B475(1)010A(2) 0.5 6 #220.0 E T491B685(1)010A(2) 0.7 6 #220	8.0 8.0	1.2
220.0 X T491X227(1)006A(2) 13.2 8 #220.0 D T491D227(1)006A(2) 13.2 8 #220.0 C T491C227M006A(2) 13.2 1 #220.0 V T491V227(1)006A(2) 13.2 1 330.0 X T491X337(1)006A(2) 19.8 8 330.0 D T491D337(1)006A(2) 19.8 8 330.0 E T491E337(1)006A(2) 20.8 8 470.0 X T491X477(1)006A(2) 28.2 1 470.0 D T491D477M006A(2) 28.2 1 470.0 E T491E477(1)006A(2) 28.2 1 470.0 E T491E477(1)006A(2) 29.6 1 68.0 E T491E687M006A(2) 40.8 1 10 Volt Rating at +85°C (7 Volt Rating at +125°C 2.2 B T491B225(1)010A(2) 0.5 6 2.2 A T491A335(1)010A(2) 0.5 6 3.3 A T491A335(1)010A(2) 0.5 6 3.3 A T491A335(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 4.7 B T491B475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 4.7 A T491B685(1)010A(2) 0.5 6 6.8 B T491B685(1)010A(2) 0.5 6 6.8 T T491B685(1)010A(2) 0.7 6 6.8 T T4911685(1)010A(2) 0.7 6 6.8 T T4915685(1)010A(2) 0.7 6 6.8 T T4915	8.0	0.7
#220.0 D T491D227(1)006A(2) 13.2 8 #220.0 C T491C227M006A(2) 13.2 1 #220.0 V T491C227M006A(2) 13.2 1 #330.0 X T491X337(1)006A(2) 19.8 8 #330.0 D T491D337(1)006A(2) 19.8 8 #330.0 E T491E337(1)006A(2) 20.8 8 #470.0 X T491X477(1)006A(2) 28.2 1 #470.0 D T491D477M006A(2) 28.2 1 #470.0 E T491E477(1)006A(2) 29.6 1 #470.0 E T491E477(1)006A(2) 29.6 1 #470.0 E T491E477(1)006A(2) 29.6 1 #470.0 E T491E477(1)006A(2) 0.5 6 #470.0 E T491E477(1)006A(2) 0.5 6 #470.0 E T491E477(1)006A(2) 30.5 6 #470.0 E T491E477(1)006A(2) 0.5 6 #470.0 E T491E477(1)006A(2) 0.5 6 #4818335(1)010A(2) 0.5 6 #48184335(1)010A(2) 0.5 6 #4818335(1)010A(2) 0.5 6 #4818335(1)010A(2) 0.5 6 #4818335(1)010A(2) 0.5 6 #481835(1)010A(2) 0.7 6 #491835(1)010A(2) 0.7 6 #491835(1)010A(2) 0.7 6 #491835(1)010A(2) 0.7 6 #491835(1)010A(2	8.0	0.7
#220.0 C T491C227M006A(2) 13.2 1 #220.0 V T491V227(1)006A(2) 13.2 1 330.0 X T491X337(1)006A(2) 19.8 8 330.0 D T491D337(1)006A(2) 19.8 8 470.0 C T491E337(1)006A(2) 20.8 8 470.0 D T491D477(1)006A(2) 28.2 1 470.0 E T491E477(1)006A(2) 28.2 1 470.0 E T491E477(1)006A(2) 29.6 1 680.0 E T491E687M006A(2) 40.8 1 10 Volt Rating at +85°C (7 Volt Rating at +125°C 2.2 B T491E3687M006A(2) 40.8 1 1.5 A T491A156(1)010A(2) 0.5 6 2.2 B T491E335(1)010A(2) 0.5 6 3.3 A T491A335(1)010A(2) 0.5 6 3.3 S T491S335(1)010A(2) 0.5 6 4.7 B T491E475(1)010A(2) 0.5 6 4.7 B T491E475(1)010A(2) 0.5 6 4.7 B T491B475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 6.8 B T491B685(1)010A(2) 0.5 6 6.8 T T491E85(1)010A(2) 0.5 6 6.8 T T491F685(1)010A(2) 0.7 6 6.8 T T4915685(1)010A(2) 0.7 10.0 6 6.8 T491506(1)010A(2) 1.0 6	8.0	0.7
330.0	10.0	1.2
330.0 D T491D337(1)006A(2) 19.8 8.8 1491D337(1)006A(2) 20.8 1491D337(1)006A(2) 20.8 1491D337(1)006A(2) 20.8 1491D337(1)006A(2) 20.8 1491D337(1)006A(2) 20.8 1491D337(1)006A(2) 20.6 1491D337(1)006A(2) 20.6 1491D337(1)006A(2) 20.6 1491D337(1)006A(2) 20.6 1491D337(1)006A(2) 20.6 1491D337(1)006A(2) 20.6 1491D337(1)006A(2) 20.5 20.2 20.6 20.2 20.6 20.2 20.6 20.2 20.6 20.2 20.6 20.2 20.6 20.2 20.6 20.2 20.6 20.2 20.6 20.2 20.6 20.2 20.5 20.2 20.2 20.5 20.2 20.2 20.5 20.2 20.2 20.5 20.2 20.	12.0	0.7
330.0 E T491E337(1)006A(2) 20.8 6	8.0	0.4
470.0	8.0	0.4
470.0 D	8.0	0.5
470.0 E	10.0 12.0	0.4 0.4
Columbia	10.0	0.4
10 Volt Rating at +85°C (7 Volt Rating at +125°C 1.5	12.0	0.5
1.5 A T491A155(1)010A(2) 0.5 6 2.2 B T491B225(1)010A(2) 0.5 6 2.2 A T491A25(1)010A(2) 0.5 6 3.3 A T491A335(1)010A(2) 0.5 6 3.3 S T491S335(1)010A(2) 0.5 6 4.7 B T491B475(1)010A(2) 0.3 8 4.7 B T491B475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 4.7 B T491B475(1)010A(2) 0.5 6 6.8 B T491B685(1)010A(2) 0.5 6 6.8 B T491B685(1)010A(2) 0.5 6 6.8 T T491A685(1)010A(2) 0.7 6 6.8 T T491F685(1)010A(2) 0.7 6 6.8 T T491F085(1)010A(2) 0.7 10.0 6 6.8 T T491B685(1)010A(2) 0.7 10.0 6 6.8 T T491B685(1)010A(2) 0.7 10.0 6 6.8 T T491B685(1)010A(2) 0.7 10.0 6		0.0
2.2 B T491B225(1)010A(2) 0.5 6 2.2 A T491A225(1)010A(2) 0.5 6 3.3 A T491A335(1)010A(2) 0.5 6 3.3 S T491S335(1)010A(2) 0.5 6 4.7 B T491B475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 4.7 B T491B475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 6.8 B T491B475(1)010A(2) 0.5 6 6.8 B T491B685(1)010A(2) 0.7 6 6.8 T T491A685(1)010A(2) 0.7 6 6.8 T T491S685(1)010A(2) 0.7 6 6.8 T T491G85(1)010A(2) 0.7 6 6.8 T T491G85(1)010A(2) 0.7 6 6.8 T T491C85(1)010A(2) 0.7 6 6.8 T T491C106(1)010A(2) 0.7 10 6.8 T491B1685(1)010A(2) 0.7 10 6.8 T491B1685(1)010A(2) 0.7 10 6.8 T491B106(1)010A(2) 1.0 6	6.0	8.0
2.2 A T491A225(1)010A(2) 0.5 6 3.3 A T491A335(1)010A(2) 0.5 6 3.3 S T491S335(1)010A(2) 0.5 6 4.7 B T491B475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 4.7 B T491B475(1)010A(2) 0.5 6 6.8 B T491B685(1)010A(2) 0.5 6 6.8 B T491B685(1)010A(2) 0.7 6 6.8 T T491A75(1)010A(2) 0.7 6 6.8 T T491B685(1)010A(2) 0.7 6 6.8 T T491B685(1)010A(2) 0.7 6 6.8 T T4915685(1)010A(2) 0.7 6 6.8 T T491C685(1)010A(2) 0.7 6 6.8 T T491C66(1)010A(2) 0.7 6 6.8 T T491C106(1)010A(2) 0.7 10.0 6 6.8 T T491C106(1)010A(2) 1.0 6	6.0	3.5
3.3 A T491A336(1)010A(2) 0.5 6 3.3 S T491S335(1)010A(2) 0.5 6 4.7 B T491B475(1)010A(2) 0.5 6 4.7 A T491B475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 6.8 B T491B685(1)010A(2) 0.5 6 6.8 B T491B685(1)010A(2) 0.7 6 6.8 T T491A685(1)010A(2) 0.7 6 6.8 T T491B685(1)010A(2) 0.7 10.0 6 6.8 T T491B685(1)010A(2) 0.7 10.0 6 6.8 T T491B06(1)010A(2) 1.0 6	6.0	8.0
#3.3 R T491R335(1)010A(2) 0.3 E 4.7 B T491B475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 #4.7 S T491S475(1)010A(2) 0.5 6 #4.7 R T491R475(1)010A(2) 0.5 8 6.8 B T491B685(1)010A(2) 0.7 6 6.8 A T491A685(1)010A(2) 0.7 6 6.8 T T491A685(1)010A(2) 0.7 6 6.8 T T491A685(1)010A(2) 0.7 6 6.8 T T491B685(1)010A(2) 0.7 6 10.0 C T491C106(1)010A(2) 0.7 1 10.0 C T491C106(1)010A(2) 1.0 6	6.0	6.0
4.7 B T491B475(1)010A(2) 0.5 6 4.7 A T491A475(1)010A(2) 0.5 6 #4.7 S T491S475(1)010A(2) 0.5 6 #4.7 R T491S475(1)010A(2) 0.5 6 6.8 B T491B685(1)010A(2) 0.7 6 6.8 A T491A685(1)010A(2) 0.7 6 6.8 T T491T685(1)010A(2) 0.7 6 #6.8 S T491S685(1)010A(2) 0.7 6 #6.8 S T491S685(1)010A(2) 0.7 6 10.0 C T491C106(1)010A(2) 0.7 1 10.0 B T491B106(1)010A(2) 1.0 6	6.0	15.0
4.7 A T491A475(1)010A(2) 0.5 6 #4.7 S T491S475(1)010A(2) 0.5 6 #4.7 R T491S475(1)010A(2) 0.5 6 6.8 B T491B685(1)010A(2) 0.7 6 6.8 A T491A685(1)010A(2) 0.7 6 6.8 T T491T685(1)010A(2) 0.7 6 #6.8 S T491S685(1)010A(2) 0.7 1 10.0 C T491C106(1)010A(2) 1.0 6 10.0 B T491B106(1)010A(2) 1.0 6	8.0	15.0
#4.7 S T491S475(1)010A(2) 0.5 68 #4.7 R T491R475(1)010A(2) 0.5 87 6.8 B T491B685(1)010A(2) 0.7 68 6.8 A T491A685(1)010A(2) 0.7 68 6.8 T T491T685(1)010A(2) 0.7 68 #6.8 S T4915685(1)010A(2) 0.7 10 10.0 C T491C106(1)010A(2) 1.0 68 10.0 B T491B106(1)010A(2) 1.0 68	6.0	3.5
#4.7 R T491R475(1)010A(2) 0.5 8 6.8 B T491B685(1)010A(2) 0.7 6 6.8 A T491A685(1)010A(2) 0.7 6 6.8 T T491T685(1)010A(2) 0.7 6 #6.8 S T491S685(1)010A(2) 0.7 1 10.0 C T491C106(1)010A(2) 1.0 6 10.0 B T491B106(1)010A(2) 1.0 6	6.0	5.0
6.8 B T491B685(1)010A(2) 0.7 6 6.8 A T491A685(1)010A(2) 0.7 6 6.8 T T4917685(1)010A(2) 0.7 6 #6.8 S T4915685(1)010A(2) 0.7 1 10.0 C T491C106(1)010A(2) 1.0 6 10.0 B T491B106(1)010A(2) 1.0 6	6.0	15.0
6.8 A T491A685(1)010A(2) 0.7 6 6.8 T T491T685(1)010A(2) 0.7 6 #6.8 S T491S685(1)010A(2) 0.7 1 10.0 C T491C106(1)010A(2) 1.0 6 10.0 B T491B106(1)010A(2) 1.0 6	6.0	10.0 3.5
6.8 T T491T685(1)010A(2) 0.7 6 #6.8 S T491S685(1)010A(2) 0.7 1 10.0 C T491C106(1)010A(2) 1.0 6 10.0 B T491B106(1)010A(2) 1.0 6	6.0	4.0
#6.8 S T491S685(1)010A(2) 0.7 1 10.0 C T491C106(1)010A(2) 1.0 6 10.0 B T491B106(1)010A(2) 1.0 6	6.0	5.0
10.0 C T491C106(1)010A(2) 1.0 6 10.0 B T491B106(1)010A(2) 1.0 6	10.0	15.0
10.0 B T491B106(1)010A(2) 1.0 6	6.0	1.8
#10.0 A T401A106(4)040A(2) 1.0	6.0	3.5
	6.0	4.0
	6.0	5.0
	10.0	15.0
	24.0	30.0
	6.0 6.0	1.8 1.8
	6.0	2.8
	8.0	6.0
	8.0	5.0

**6 Volt product equivalent to 6.3 volt product. #Maximum Capacitance Change @ 125°C=+15%. †Maximum Capacitance Change @ 125°C=+20%.

To complete KEMET Part Number, insert M for ±20% tolerance or K for ±10% tolerance.
 To complete KEMET Part Number, insert T, H, G lead material designation as show *Extended Values

lead material designation as shown on page 15.

Higher voltage ratings and tighter tolerance product may be substituted within the same size at KEMET's option. Voltage substitutions will be marked with the higher voltage rating.



SOLID TANTALUM CHIP CAPACITORS

T491 SERIES—Precision Molded Chip

T491 RATINGS & PART NUMBER REFERENCE

		1491 K	<u> AHING</u>	<u>35 α</u>	PAR
Camaa!			DC	DF %	ESR Ω
Capaci-	Case	KEMET	Leakage	@ +25°C	@ +25°C
tance	Size	Part Number	μA @ 25ºC	120 Hz	100 kHz
μF			Max	Max	Max
	10	Volt Rating at +85°C (7 Vol	t Rating at +1	25°C)	
22.0	С	T491C226(1)010A(2)	2.2	6.0	1.8
22.0	U	T491U226(1)010A(2)	2.2	6.0	1.8
#22.0	В	T491B226(1)010A(2)	2.2	6.0	2.4
#22.0	Α	T491A226M010A(2)	2.2	10.0	6.0
#22.0	T	T491T226(1)010A(2)	2.2	12.0	8.0
33.0	D	T491D336(1)010A(2)	3.3	6.0	0.8
33.0	V	T491V336(1)010A(2)	3.3	6.0	0.7
33.0	C U	T491C336(1)010A(2)	3.3	6.0	1.6
#33.0 #33.0	В	T491U336(1)010A(2) T491B336(1)010A(2)	3.3 3.3	6.0 6.0	1.8 1.8
#33.0	T	T491T336(1)010A(2)	3.3	24.0	5.0
#33.0	Ä	T491A336(1)010A(2)	3.3	15.0	6.0
47.0	D	T491D476(1)010A(2)	4.7	6.0	0.8
47.0	V	T491V476(1)010A(2)	4.7	6.0	0.7
#47.0	Ċ	T491C476(1)010A(2)	4.7	6.0	1.2
#47.0	U	T491U476(1)010A(2)	4.7	10.0	2.2
#47.0	В	T491B476(1)010A(2)	4.7	8.0	1.0
68.0	D	T491D686(1)010A(2)	6.8	6.0	0.8
68.0	V	T491V686(1)010A(2)	6.8	6.0	0.7
#68.0	С	T491C686(1)010A(2)	6.8	6.0	1.2
#68.0	U	T491U686(1)010A(2)	6.8	10.0	1.8
#68.0	В	T491B686M010A(2)	6.8	10.0	3.0
100.0	D	T491D107(1)010A(2)	10.0	8.0	0.7
#100.0	С	T491C107(1)010A(2)	10.0	8.0	1.2
#100.0	V	T491V107(1)010A(2)	10.0	8.0	0.7
150.0	X	T491X157(1)010A(2)	15.0	8.0	0.7
#150.0	D	T491D157(1)010A(2)	15.0	8.0	0.7
#150.0	C V	T491C157(1)010A(2)	15.0	10.0	0.9
#150.0 #220.0	X	T491V157(1)010A(2) T491X227(1)010A(2)	15.0 22.0	8.0 8.0	0.7 0.5
#220.0	Ď	T491D227(1)010A(2)	22.0	8.0	0.5
#220.0	V	T491V227(1)010A(2)	22.0	12.0	0.3
#330.0	Ď	T491D337M010A(2)	33.0	10.0	0.5
#330.0	X	T491X337(1)010A(2)	33.0	10.0	0.5
#330.0	Ê	T491E337(1)010A(2)	33.0	10.0	0.5
#470.0	Х	T491X477M010A(2)	47.0	10.0	0.2
#470.0	Е	T491E477M010A(2)	47.0	12.0	0.5
	16 \	Volt Rating at +85°C (10 Vo	It Rating at +	125ºC)	
1.0	Α	T491A105(1)016A(2)	0.5	4.0	10.0
1.5	A	T491A155(1)016A(2)	0.5	6.0	8.0
2.2	A	T491A225(1)016A(2)	0.5	6.0	6.0
2.2 #2.2	S R	T491S225(1)016A(2) T491R225(1)016A(2)	0.5 0.5	6.0 8.0	15.0 25.0
3.3	В	T491B335(1)016A(2)	0.5	6.0	3.5
3.3	A	T491A335(1)016A(2)	0.5	6.0	5.0
4.7	Ĉ	T491C475(1)016A(2)	0.75	6.0	2.4
4.7	В	T491B475(1)016A(2)	0.75	6.0	3.5
4.7	A	T491A475(1)016A(2)	0.8	6.0	4.0
4.7	Т	T491T475(1)016A(2)	0.8	6.0	5.0
6.8	С	T491C685(1)016A(2)	1.1	6.0	1.9
6.8	В	T491B685(1)016A(2)	1.1	6.0	2.5
#6.8	Α	T491A685(1)016A(2)	1.1	6.0	3.5
10.0	C	T491C106(1)016A(2)	1.6	6.0	1.8
10.0	U	T491U106(1)016A(2)	1.6	6.0	1.8
10.0	В	T491B106(1)016A(2)	1.6	6.0	2.8
#10.0	A	T491A106(1)016A(2)	1.6	8.0	7.0
#10.0	T	T491T106(1)016A(2)	1.6	8.0	8.0
15.0 15.0	C	T491C156(1)016A(2) T491U156(1)016A(2)	2.4 2.4	6.0 6.0	1.8 1.8
15.0	В	T491B156(1)016A(2)	2.4	6.0	2.5
#15.0	A	T491A156(1)016A(2)	2.4	8.0	3.5
22.0	D	T491D226(1)016A(2)	3.6	6.0	0.8
22.0	C	T491C226(1)016A(2)	3.6	6.0	1.6
#22.0	Ŭ	T491U226(1)016A(2)	3.6	10.0	3.0
	U		3.6	6.0	2.2
#22.0	В	T491B226(1)016A(2)			
#22.0 33.0		T491B226(1)016A(2) T491D336(1)016A(2)	5.3	6.0	0.8
33.0 #33.0	B D C				0.8 1.2
33.0 #33.0 #33.0	B D C U	T491D336(1)016A(2) T491C336(1)016A(2) T491U336(1)016A(2)	5.3 5.3 5.3	6.0 6.0 12.0	1.2 3.0
33.0 #33.0 #33.0 47.0	B D C U	T491D336(1)016A(2) T491C336(1)016A(2) T491U336(1)016A(2) T491D476(1)016A(2)	5.3 5.3 5.3 7.5	6.0 6.0 12.0 6.0	1.2 3.0 0.8
33.0 #33.0 #33.0 47.0 47.0	B C U D V	T491D336(1)016A(2) T491C336(1)016A(2) T491U336(1)016A(2) T491D476(1)016A(2) T491V476(1)016A(2)	5.3 5.3 5.3 7.5 7.5	6.0 6.0 12.0 6.0 6.0	1.2 3.0 0.8 0.7
33.0 #33.0 #33.0 47.0 47.0 #47.0	B C U D V	T491D336(1)016A(2) T491C336(1)016A(2) T491U336(1)016A(2) T491D476(1)016A(2) T491V476(1)016A(2) T491C476(1)016A(2)	5.3 5.3 5.3 7.5 7.5 7.5	6.0 6.0 12.0 6.0 6.0 6.0	1.2 3.0 0.8 0.7 1.2
33.0 #33.0 #33.0 47.0 47.0 #47.0	B C U D V C	T491D336(1)016A(2) T491C336(1)016A(2) T491U336(1)016A(2) T491D476(1)016A(2) T491V476(1)016A(2) T491C476(1)016A(2) T491V686(1)016A(2)	5.3 5.3 5.3 7.5 7.5 7.5 7.5	6.0 6.0 12.0 6.0 6.0 6.0	1.2 3.0 0.8 0.7 1.2 0.7
33.0 #33.0 #33.0 47.0 47.0 #47.0	B C U D V	T491D336(1)016A(2) T491C336(1)016A(2) T491U336(1)016A(2) T491D476(1)016A(2) T491V476(1)016A(2) T491C476(1)016A(2)	5.3 5.3 5.3 7.5 7.5 7.5	6.0 6.0 12.0 6.0 6.0 6.0	1.2 3.0 0.8 0.7 1.2

	(1)	To complete KEMET Part Number, insert M for $\pm 20\%$ tolerance or K for $\pm 10\%$ tolerance.	
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⁽¹⁾ To complete REINET Part Number, insert in for ± (2) To complete KEMET Part Number, insert T, H, G

*Extended Values

**6 Volt product equivalent to 6.3 volt product.

#Maximum Capacitance Change @ 125°C=+15%. lead material designation as shown on page 15.

Higher voltage ratings and tighter tolerance product may be substituted within the same size at KEMET's option. Voltage substitutions will be marked with the higher voltage rating.

UMBI	ER	REFEREN(Œ		
Capaci- tance	Case Size	KEMET Part Number	DC Leakage μA @ 25°C	DF % @ +25°C 120 Hz	ESR Ω @ +25°C 100 kHz
μF			Max	Max	Max
		Volt Rating at +85°C (10 Vo			
100.0	X V	T491X107(1)016A(2) T491V107(1)016A(2)	16.0	8.0 12.0	0.7 0.7
†100.0 #100.0	D	T491D107(1)016A(2)	16.0 16.0	8.0	0.7
#150.0	X	T491X157(1)016A(2)	24.0	8.0	0.5
#150.0	D	T491D157(1)016A(2)	24.0	12.0	0.7
#220.0 #220.0	X E	T491X227(1)016A(2) T491E227(1)016A(2)	35.2 35.2	10.0 7.2	0.5 0.9
#220.0		olt Rating at +85°C (13 Vo	It Rating at +	125°C)	0.0
0.47	R	T491R474(1)020A(2)	0.1	4.0	35.0
0.68 1.0	A	T491A684(1)020A(2) T491A105(1)020A(2)	0.5 0.5	4.0	12.0 9.0
1.0	s	T491S105(1)020A(2)	0.5	6.0	18.0
#1.0	R	T491R105(1)020A(2)	0.5	6.0	20.0
1.5 1.5	A S	T491A155(1)020A(2) T491S155(1)020A(2)	0.5 0.5	6.0 6.0	6.5 15.0
2.2	В	T491B225(1)020A(2)	0.5	6.0	3.5
2.2	A	T491A225(1)020A(2)	0.5	0.6	7.0
3.3	R B	T491R225(1)020A(2) T491B335(1)020A(2)	0.4	8.0 6.0	8.0 3.0
#3.3	Ā	T491A335(1)020A(2)	0.7	6.0	4.5
3.3	T	T491T335(1)020A(2)	0.7	6.0	5.0
4.7 4.7	C B	T491C475(1)020A(2) T491B475(1)020A(2)	1.0 1.0	6.0 6.0	2.4 3.0
#4.7	A	T491A475(1)020A(2)	1.0	6.0	4.0
6.8	С	T491C685(1)020A(2)	1.4	6.0	1.9
6.8	U	T491U685(1)020A(2)	1.4	6.0	1.9
#6.8 #6.8	B A	T491B685(1)020A(2) T491A685M020A(2)	1.4 1.4	6.0 8.0	2.5 6.0
10.0	С	T491C106(1)020A(2)	2.0	6.0	1.8
10.0	U B	T491U106(1)020A(2) T491B106(1)020A(2)	2.0	6.0	1.8
#10.0 #10.0	A	T491A106M020A(2)	2.0 2.0	6.0 10.0	2.1 5.0
15.0	D	T491D156(1)020A(2)	3.0	6.0	1.0
15.0	C D	T491C156(1)020A(2)	3.0 4.4	6.0	1.7
22.0 22.0	V	T491D226(1)020A(2) T491V226(1)020A(2)	4.4	6.0 6.0	0.8 0.7
#22.0	Ċ	T491C226(1)020A(2)	4.4	6.0	1.2
#22.0	В	T491B226(1)020A(2)	4.4	8.0	4.0
33.0 #33.0	D C	T491D336(1)020A(2) T491C336M020A(2)	6.6 6.6	6.0 6.0	0.8 1.2
†33.0	V	T491V336(1)020A(2)	6.6	8.0	0.7
47.0	C D	T491C476M020A(2)	9.4	10.0	0.9
47.0 68.0	X	T491D476(1)020A(2) T491X686(1)020A(2)	9.4 13.6	6.0	0.7 0.7
#68.0	D	T491D686(1)020A(2)	13.6	8.0	0.7
#100.0	X E	T491X107(1)020A(2)	20.0	8.0	0.5
#100.0 #150.0	X	T491E107(1)020A(2) T491X157(1)020A(2)	20.0 30.0	8.0 10.0	0.5 0.5
		/olt Rating at +85°C (17 Vo			
0.33	A	T491A334(1)025A(2) T491A474(1)025A(2)	0.5 0.5	4.0	15.0 14.0
0.47	A	T491A684(1)025A(2)	0.5	4.0	10.0
1.0	В	T491B105(1)025A(2)	0.5	4.0	5.0
1.0 1.0	A S	T491A105(1)025A(2) T491S105(1)025A(2)	0.5 0.25	4.0 6.0	8.0 18.0
1.5	В	T491B155(1)025A(2)	0.5	6.0	5.0
1.5	Α	T491A155(1)025A(2)	0.5	6.0	7.5
1.5 2.2	R C	T491R155(1)025A(2) T491C225(1)025A(2)	0.4	8.0 6.0	8.0 3.5
2.2	В	T491B225(1)025A(2)	0.6	6.0	4.5
3.3	С	T491C335(1)025A(2)	0.9	6.0	2.5
3.3 4.7	B C	T491B335(1)025A(2) T491C475(1)025A(2)	0.9 1.2	6.0	3.5 2.4
#4.7	В	T491B475(1)025A(2)	1.2	6.0	1.5
#4.7	Α	T491A475M025A(2)	1.2	8.0	6.0
6.8 6.8	C B	T491C685(1)025A(2) T491B685(1)025A(2)	1.7 1.7	6.0 8.0	1.9 2.8
10.0	D	T491D106(1)025A(2)	2.5	6.0	1.0
10.0	C	T491C106(1)025A(2)	2.5	6.0	1.5
10.0 15.0	B D	T491B106(1)025A(2) T491D156(1)025A(2)	2.5 3.8	8.0 6.0	3.0 1.0
#15.0	С	T491C156(1)025A(2)	3.8	6.0	1.5
#15.0	В	T491B156(1)025A(2)	3.8	8.0	4.0
22.0 22.0	D C	T491D226(1)025A(2) T491C226(1)025A(2)	5.5 5.5	6.0 6.0	0.8 1.4
22.0	V	T491V226(1)025A(2)	5.5	6.0	0.7
33.0	X	T491X336(1)025A(2)	8.3	6.0	0.7
#33.0 #33.0	D C	T491D336(1)025A(2) T491C336(1)025A(2)	8.3 8.3	6.0 10.0	0.7 1.2
#47.0	X	T491X476(1)025A(2)	11.8	6.0	0.7
†47.0	D	T491D476(1)025A(2)	11.8	10.0	0.7
†68.0 †68.0	X D	T491X686M025A(2) T491D686M025A(2)	17.0 17.0	8.0 10.0	0.7 0.7
100.0	X	T491X107(1)025A(2)	25.0	8.0	0.7

[†]Maximum Capacitance Change @ 125°C=+20%.

SOLID TANTALUM CHIP CAPACITORS KEMET

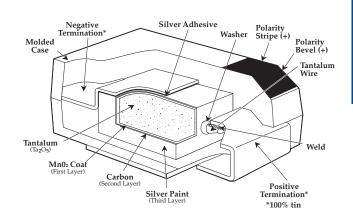
T491 SERIES—Precision Molded Chip



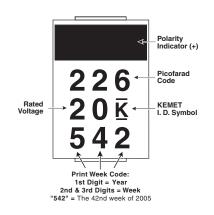
T491 RATINGS & PART NUMBER REFERENCE

Capaci-			DC	DF %	ESR Ω
tance	Case	KEMET	Leakage	@ +25°C	@ +25°C
	Size	Part Number	μA @ 25ºC	120 Hz	100 kHz
μF			Max	Max	Max
	35 \	olt Rating at +85°C (23 Vo	It Rating at +	125ºC)	
0.10	Α	T491A104(1)035A(2)	0.5	4.0	20.0
0.15	Α	T491A154(1)035A(2)	0.5	4.0	19.0
0.22	Α	T491A224(1)035A(2)	0.5	4.0	18.0
0.33	A	T491A334(1)035A(2)	0.5	4.0	15.0
0.47	В	T491B474(1)035A(2)	0.5	4.0	8.0
0.47	A	T491A474(1)035A(2)	0.5	4.0	12.0
0.68	В	T491B684(1)035A(2)	0.5	4.0	6.5
0.68	A	T491A684(1)035A(2)	0.5	4.0	8.0
1.0	В	T491B105(1)035A(2)	0.5	4.0	5.0
1.0 1.5	A C	T491A105(1)035A(2) T491C155(1)035A(2)	0.5 0.5	4.0 6.0	7.5 4.5
1.5	В	T491B155(1)035A(2)	0.5	6.0	4.5 5.0
2.2	C	T491C225(1)035A(2)	0.8	6.0	3.5
2.2	В	T491B225(1)035A(2)	0.8	6.0	4.0
3.3	Č	T491C335(1)035A(2)	1.2	6.0	2.5
#3.3	B	T491B335(1)035A(2)	1.2	6.0	3.5
4.7	D	T491D475(1)035A(2)	1.7	6.0	1.5
4.7	С	T491C475(1)035A(2)	1.7	6.0	2.2
6.8	D	T491D685(1)035A(2)	2.4	6.0	1.3
6.8	С	T491C685(1)035A(2)	2.4	6.0	1.8
10.0	D	T491D106(1)035A(2)	3.5	6.0	1.0
#10.0	С	T491C106M035A(2)	3.5	6.0	1.6
#10.0	V	T491V106(1)035A(2)	3.5	6.0	2.0
15.0	X	T491X156(1)035A(2)	5.3	6.0	0.9
15.0	D	T491D156(1)035A(2)	5.3	6.0	0.8
22.0	X	T491X226(1)035A(2)	7.7	6.0	0.7
#22.0	D X	T491D226(1)035A(2)	7.7	6.0	0.7
#33.0 †47.0	X	T491X336(1)035A(2) T491X476(1)035A(2)	11.6 16.5	6.0 8.0	0.6 0.6
#47.0	Ê	T491E476(1)035A(2)	16.5	10.0	0.5
π-11.0		olt Rating at +85°C (33 Vo			0.0
0.10	A	T491A104(1)050A(2)	0.5	4.0	20.0
0.15	В	T491B154(1)050A(2)	0.5	4.0	16.0
0.15	Α	T491A154(1)050A(2)	0.5	4.0	15.0
0.22	В	T491B224(1)050A(2)	0.5	4.0	14.0
0.33	В	T491B334(1)050A(2)	0.5	4.0	10.0
0.47	С	T491C474(1)050A(2)	0.5	4.0	8.0
0.47	В	T491B474(1)050A(2)	0.5	4.0	9.0
0.68	С	T491C684(1)050A(2)	0.5	4.0	7.0
0.68	В	T491B684(1)050A(2)	0.5	4.0	8.0
1.0	С	T491C105(1)050A(2)	0.5	4.0	5.5
1.0	B V	T491B105(1)050A(2)	0.5	6.0 4.0	6.0 6.0
1.0 1.5	D	T491V105(1)050A(2)	0.5	6.0	
1.5	C	T491D155(1)050A(2) T491C155(1)050A(2)	0.8 0.8	6.0	3.5 4.5
2.2	D	T491D225(1)050A(2)	1.1	6.0	2.5
2.2	C	T491C225(1)050A(2)	1.1	6.0	3.0
3.3	D	T491D335(1)050A(2)	1.7	6.0	2.0
4.7	D	T491D475(1)050A(2)	2.4	6.0	1.4
6.8	X	T491X685(1)050A(2)	3.5	6.0	1.0
#6.8	Ď	T491D685(1)050A(2)	3.4	6.0	1.0
#10.0	X	T491X106M050A(2)	5.0	6.0	0.7
#10.0	D	T491D106(1)050A(2)	5.0	6.0	0.8
†15.0	X	T491X156(1)050A(2)	7.5	8.0	0.7
22.0	X	T491X226(1)050A(2)	11.0	10.0	0.6

CONSTRUCTION

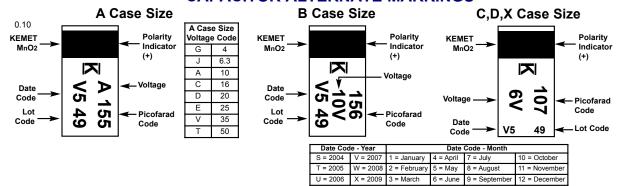


CAPACITOR MARKINGS



Voltage substitutions will be marked with the higher voltage rating.

CAPACITOR ALTERNATE MARKINGS



To complete KEMET Part Number, insert M for ±20% tolerance or K for ±10% tolerance.

To complete KEMET Part Number, insert T, H, G lead material designation as shown on page 15.

^{*}Extended Values

^{**6} Volt product equivalent to 6.3 volt product.

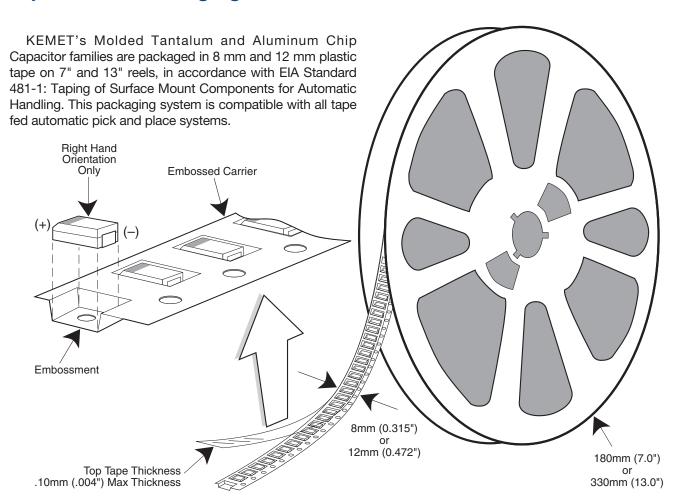
[#]Maximum Capacitance Change @ 125°C=+15%. †Maximum Capacitance Change @ 125°C=+20%.

Higher voltage ratings and tighter tolerance product may be substituted within the same size at KEMET's option.



Packaging Information

Tape & Reel Packaging



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

QUANTITIES PACKAGED PER REEL

Case	Code	Tape	7" Reel*	* 13" Reel		
KEMET	EIA	Width-mm	i Keei	13 1/661		
R	2012-12	8	2,500	10,000		
I	3216-10	8	3,000	12,000		
S	3216-12	8	2,500	10,000		
Т	3528-12	8	2,500	10,000		
М	3528-15	8	2,000	8,000		
U	6032-15	12	1,000	5,000		
L	6032-19	12	1,000	5,000		
W	7343-15	12	1,000	3,000		
Z	7343-17	12	1,000	3,000		
V	7343-20	12	1,000	3,000		
Α	3216-18	8	2,000	9,000		
В	3528-21	8	2,000	8,000		
С	6032-28	12	500	3,000		
D	7343-31	12	500	2,500		
Y	7343-40	12	500	2,000		
Х	7343-43	12	500	2,000		
E	7260-38	12	500	2,000		

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



TANTALUM, CERAMIC AND ALUMINUM CHIP CAPACITORS

Packaging Information

Performance Notes

1. Cover Tape Break Force: 1.0 Kg Minimum.

2. Cover Tape Peel Strength: The total peel strength of the cover tape from the carrier tape shall be:

Tape Width Peel Strength

8 mm 0.1 Newton to 1.0 Newton (10g to 100g) 12 mm 0.1 Newton to 1.3 Newton (10g to 130g)

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

- 3. Reel Sizes: Molded tantalum capacitors are available on either 180 mm (7") reels (standard) or 330 mm (13") reels (with C-7280). Note that 13" reels are preferred.
- **4. Labeling:** Bar code labeling (standard or custom) shall be on the side of the reel opposite the sprocket holes. Refer to EIA-556.

Embossed Carrier Tape Configuration: Figure 1

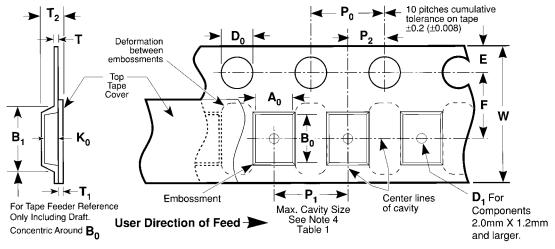


Table 1 — EMBOSSED TAPE DIMENSIONS (Metric will govern)

	Table 1 — Limbossed TAT E dimensions (wettle will govern)											
	Constant Dimensions — Millimeters (Inches)											
Tape Size	$\mathbf{D}_{\scriptscriptstyle{0}}$		E	P_{o}	P_{2}	T Max	T₁ Max					
8 mm and	1.5 +0.10 -0	I	5 ±0.10	4.0 ±0.10	2.0 ±0.05	0.600	0.100					
12 mm	(0.059 +0.004, -(١, ١	9 ±0.004)	(0.157 ±0.004)	(0.079 ±0.002)	(0.024)	(0.004)					
Variable Dimensions — Millimeters (Inches)												
Tape Size	Pitch	B, Max	D₁ Min.	F	P ₁	R Min.	T ₂ Max	W	A ₀ B ₀ K ₀			
		Note 1	Note 2			Note 3			Note 4			
8 mm	Single (4 mm)	4.4	1.0	3.5 ±0.05	4.0 ±0.10	25.0	2.5	8.0 ±0.30				
	,	(0.173)	(0.039)	(0.138 ±0.002)	(0.157 ±0.004)	(0.984)	(0.098)	(.315 ±0.012)				
12 mm	Double (8 mm)	8.2 (0.323)	1.5 (0.059)	5.5 ±0.05 (0.217 ±0.002)	8.0 ±0.10 (0.315 ±0.004)	30.0 (1.181)	4.6 (0.181)	12.0 ±0.30 (0.472 ±0.012)				

NOTES

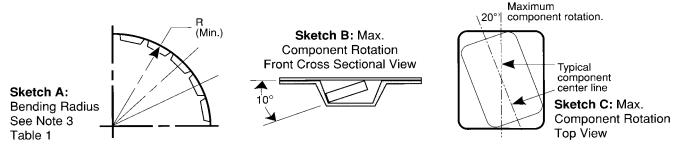
- 1. B1 dimension is a reference dimension for tape feeder clearance only.
- 2. The embossment hole location shall be measured from the sprocket hole controlling the location of the embossment. Dimensions of embossment location and hole location shall be applied independent of each other.
- 3. Tape with components shall pass around radius "R" without damage (see sketch A). The minimum trailer length (Fig. 2) may require additional length to provide R min. for 12 mm embossed tape for reels with hub diameters approaching N min. (Table 2)
- 4. The cavity defined by A₀, B₀, and K₀ shall be configured to surround the part with sufficient clearance such that the chip does not protrude beyond the sealing plane of the cover tape, the chip can be removed from the cavity in a vertical direction without mechanical restriction, rotation of the chip is limited to 20 degrees maximum in all 3 planes, and lateral movement of the chip is restricted to 0.5 mm maximum in the pocket (not applicable to vertical clearance.)

TANTALUM, CERAMIC AND ALUMINUM CHIP CAPACITORS

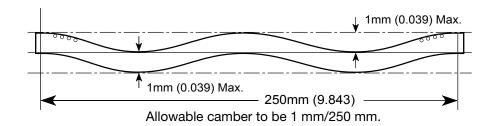


Packaging Information

Embossed Carrier Tape Configuration (cont.)



Sketch D: Tape Camber (Top View)



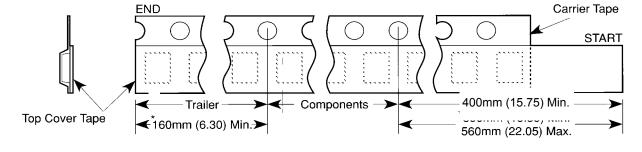
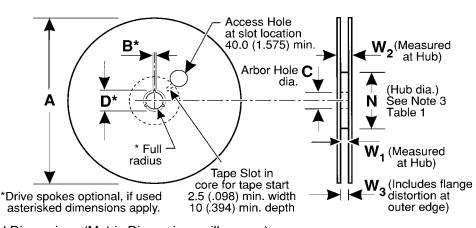


Figure 2: Tape Leader & Trailer Dimensions (Metric Dimensions Will Govern)



User Direction of Feed

Figure 3: Reel Dimensions (Metric Dimensions will govern)

Table 2 – REEL DIMENSIONS (Metric will govern)

Tape Size	A Max	B* Min	С	D* Min	N Min	W ₁	W ₂ Max	W ₃
8 mm	330.0 (12.992)	1.5 (0.059)	13.0 ± 0.20 (0.512 ± 0.008)	20.2 (0.795)	50.0 (1.969) See Note 3	8.4 +1.5, -0.0 (0.331 +0.059, -0.0)	14.4 (0.567)	7.9 Min (0.311) 10.9 Max (0.429)
12 mm	330.0 (12.992)	1.5 (0.059)	13.0 ± 0.20 (0.512 ± 0.008)	20.2 (0.795)	Table 1	12.4 +2.0, -0.0 (0.488 +0.078, -0.0)	18.4 (0.724)	11.9 Min (0.469) 15.4 Max (0.606)