

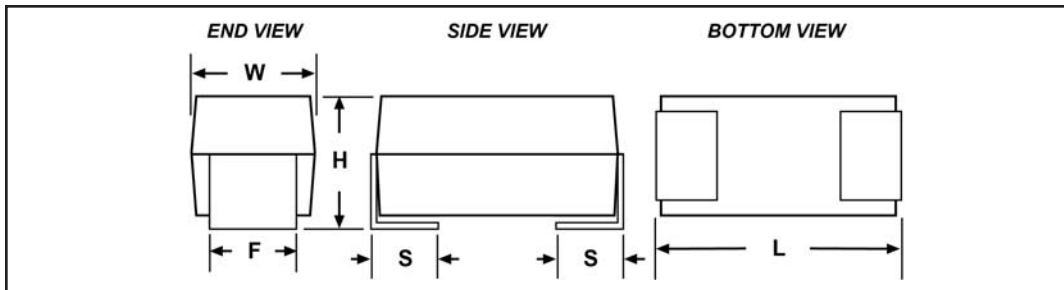
## KEMET HIGH GRADE COTS TANTALUM CHIPS - T497 SERIES

### FEATURES

Pb-free/RoHS Compliant: Available	100% Accelerated Steady State Aging
Self-healing Mechanism	Surge Current Testing Available
Various Termination Options	100% Thermal Shock
Capacitance: 0.10 to 150 $\mu$ F	Low Profile Case Sizes
Voltage: 4V to 25V	Customer Defined Performance Options

For custom low leakage and ESR solutions, contact your local KEMET Sales Representative.

### OUTLINE DRAWING



### DIMENSIONS - INCHES (Millimeters)

KEMET Size Code	L Length $\pm .38 (.015)$	W Width $\pm 0.38 (.015)$	H Height $\pm 0.38 (.015)$	P $+0.25 (.010)$ $- 0.13 (.005)$	$W_2$	$H_2$ Minimum
A	2.54 (.100)	1.27 (.050)	1.27 (.050)	0.76 (.030)	$1.27 \pm 0.13 (.050 \pm .005)$	0.76 (.030)
B	3.81 (.150)	1.27 (.050)	1.27 (.050)	0.76 (.030)	$1.27 \pm 0.13 (.050 \pm .005)$	0.76 (.030)
C	5.08 (.200)	1.27 (.050)	1.27 (.050)	0.76 (.030)	$1.27 \pm 0.13 (.050 \pm .005)$	0.76 (.030)
D	3.81 (.150)	2.54 (.100)	1.27 (.050)	0.76 (.030)	$2.41 + .13, -.25 (.095 + .005, -.010)$	0.76 (.030)
E	5.08 (.200)	2.54 (.100)	1.27 (.050)	0.76 (.030)	$2.41 + .13, -.25 (.095 + .005, -.010)$	0.76 (.030)
F	5.59 (.220)	3.43 (.135)	1.78 (.070)	0.76 (.030)	$3.30 \pm 0.13 (.130 \pm .005)$	1.02 (.040)
G	6.73 (.265)	2.79 (.110)	2.79 (.110)	1.27 (.050)	$2.67 \pm 0.13 (.105 \pm .005)$	1.52 (.060)
H	7.24 (.285)	3.81 (.150)	2.79 (.110)	1.27 (.050)	$3.68 + 0.13, -0.51 (.145 + .005 - .020)$	1.52 (.060)
X	6.93 (.273)	5.41 (.213)	2.74 (.108)	1.19 (.047)	$3.05 \pm 0.13 (.120 \pm .005)$	1.22 (.048)

### KEMET ORDERING INFORMATION

**Tantalum Series** T  
T497 High Grade

**Case Size** D  
A,B,C,D,E,F,G,H,X

**Capacitance Picofarad Code** 497  
First two digits represent significant figures.  
Third digit specifies number of zeros to follow.

**Capacitance Tolerances** M  
M =  $\pm 20\%$ ; K =  $\pm 10\%$

**Voltage** 006  
As shown  
Note: 006 = 6.3V

**Performance Options** 6XXX

- 6110 Standard Features
- 6115 Surge = None, 100% X-Ray
- 6210 Surge = 10 Cycles, +25°C
- 6215 Surge = 10 Cycles, +25°C, 100% X-Ray
- 6410 Surge = 10 Cycles, -55°C and +85°C
- 6415 Surge = 10 Cycles, -55°C and +85°C, 100% X-Ray

**Lead Material** T

- T = 100% Tin
- B = Gold
- H = SnPb (5% Pb minimum)

**Failure Rate** A

- A = Not Applicable
- B = 0.1%/1000 Hrs.
- C = 0.01%/1000 Hrs.

# T497 RATINGS & PART NUMBER REFERENCE

Capacitance μF	Case Size	KEMET Part Number	DC Leakage V <sub>R</sub> (μA) @ 25°C Max.	DF % @ +25°C 120 Hz Max.	ESR Ω @ +25°C 100 kHz Max.
<b>4 Volt Rating at 85°C (2.7 Volt Rating at 125°C)</b>					
4.7	A/1005	T497A475(1)004(2)(3)	1.0	6.0	12.0
4.7	B/1505	T497B475(1)004(2)(3)	1.0	6.0	8.0
15.0	B/1505	T497B156(1)004(2)(3)	1.0	8.0	8.0
33.0	D/1510	T497D336(1)004(2)(3)	2.0	8.0	4.0
33.0	F/2214	T497F336(1)004(2)(3)	2.0	8.0	2.2
68.0	E/2010	T497E686(1)004(2)(3)	3.0	8.0	3.0
68.0	F/2214	T497F686(1)004(2)(3)	3.0	6.0	2.0
68.0	G/2711	T497G686(1)004(2)(3)	3.0	10.0	1.1
100.0	H/2915	T497H107(1)004(2)(3)	4.0	10.0	0.9
<b>6 Volt Rating at 85°C (4 Volt Rating at 125°C)</b>					
1.5	A/1005	T497A155(1)006(2)(3)	1.0	6.0	8.0
2.2	A/1005	T497A225(1)006(2)(3)	1.0	6.0	10.0
3.3	A/1005	T497A335(1)006(2)(3)	1.0	6.0	12.0
3.3	B/1505	T497B335(1)006(2)(3)	1.0	6.0	8.0
4.7	A/1005	T497A475(1)006(2)(3)	1.0	6.0	12.0
4.7	D/1510	T497D475(1)006(2)(3)	1.0	6.0	5.5
6.8	B/1505	T497B685(1)006(2)(3)	1.0	6.0	8.0
6.8	D/1510	T497D685(1)006(2)(3)	1.0	6.0	4.5
10.0	B/1505	T497B106(1)006(2)(3)	1.0	6.0	8.0
10.0	E/2010	T497E106(1)006(2)(3)	1.0	8.0	3.5
15.0	B/1505	T497B156(1)006(2)(3)	1.0	8.0	8.0
15.0	D/1510	T497D156(1)006(2)(3)	1.0	8.0	5.0
22.0	D/1510	T497D226(1)006(2)(3)	1.0	6.0	5.0
22.0	E/2010	T497E226(1)006(2)(3)	2.0	8.0	3.5
22.0	F/2214	T497F226(1)006(2)(3)	2.0	8.0	2.2
33.0	E/2010	T497E336(1)006(2)(3)	2.0	6.0	3.5
47.0	F/2214	T497F476(1)006(2)(3)	3.0	8.0	3.5
47.0	G/2711	T497G476(1)006(2)(3)	3.0	10.0	1.1
68.0	F/2214	T497F686(1)006(2)(3)	4.0	10.0	1.5
68.0	H/2915	T497H686(1)006(2)(3)	4.0	10.0	0.9
100.0	G/2711	T497G107(1)006(2)(3)	6.0	10.0	1.1
150.0	G/2711	T497G157(1)006(2)(3)	10.0	10.0	1.1
150.0	H/2915	T497H157(1)006(2)(3)	10.0	10.0	0.9
<b>10 Volt Rating at 85°C (7 Volt Rating at 125°C)</b>					
0.47	A/1005	T497A474(1)010(2)(3)	1.0	6.0	10.0
1.0	A/1005	T497A105(1)010(2)(3)	1.0	6.0	10.0
1.5	A/1005	T497A155(1)010(2)(3)	1.0	6.0	10.0
2.2	A/1005	T497A225(1)010(2)(3)	1.0	6.0	12.0
2.2	B/1505	T497B225(1)010(2)(3)	1.0	6.0	8.0
3.3	A/1005	T497A335(1)010(2)(3)	1.0	6.0	12.0
3.3	B/1505	T497B335(1)010(2)(3)	1.0	6.0	10.0
4.7	B/1505	T497B475(1)010(2)(3)	1.0	6.0	8.0
4.7	D/1510	T497D475(1)010(2)(3)	1.0	6.0	4.5
6.8	B/1505	T497B685(1)010(2)(3)	1.0	6.0	8.0
6.8	D/1510	T497D685(1)010(2)(3)	1.0	6.0	5.0
6.8	E/2010	T497E685(1)010(2)(3)	1.0	6.0	3.5
10.0	B/1505	T497B106(1)010(2)(3)	1.0	8.0	8.0
10.0	D/1510	T497D106(1)010(2)(3)	1.0	6.0	4.0
10.0	E/2010	T497E106(1)010(2)(3)	1.0	6.0	3.5
15.0	D/1510	T497D156(1)010(2)(3)	2.0	6.0	5.0
15.0	E/2010	T497E156(1)010(2)(3)	2.0	8.0	3.0
15.0	F/2214	T497F156(1)010(2)(3)	2.0	8.0	2.5
22.0	D/1510	T497D226(1)010(2)(3)	2.0	6.0	4.0
22.0	E/2010	T497E226(1)010(2)(3)	3.0	8.0	2.0
22.0	F/2214	T497F226(1)010(2)(3)	3.0	8.0	1.5
22.0	G/2711	T497G226(1)010(2)(3)	3.0	8.0	1.5
33.0	F/2214	T497F336(1)010(2)(3)	3.0	8.0	1.5
33.0	G/2711	T497G336(1)010(2)(3)	3.0	10.0	1.1
47.0	F/2214	T497F476(1)010(2)(3)	4.0	10.0	1.5
47.0	G/2711	T497G476(1)010(2)(3)	4.0	10.0	1.0
47.0	H/2915	T497H476(1)010(2)(3)	5.0	10.0	0.9
68.0	G/2711	T497G686(1)010(2)(3)	6.0	10.0	1.1
100.0	G/2711	T497G107(1)010(2)(3)	10.0	10.0	1.1
100.0	H/2915	T497H107(1)010(2)(3)	10.0	10.0	0.9
150.0	H/2915	T497H157(1)010(2)(3)	15.0	10.0	0.9

(1) To complete KEMET part number, insert Capacitance Tolerance: K = ±10%; M = ±20%.  
(2) To complete KEMET part number, insert Failure Rate: A - Not Applicable; B = 0.1%/1000 Hrs.; C = 0.01%/1000 Hrs.  
(3) To complete KEMET part number, insert Lead Material: T = 100% Tin; B = Gold; H= SnPb.

# T497 RATINGS & PART NUMBER REFERENCE

Capacitance μF	Case Size	KEMET Part Number	DC Leakage V <sub>R</sub> (μA) @ 25°C Max.	DF % @ +25°C 120 Hz Max.	ESR Ω @ +25°C 100 kHz Max.
<b>15 Volt Rating at 85°C (10 Volt Rating at 125°C)</b>					
0.10	A/1005	T497A104(1)015(2)(3)	1.0	6.0	15.0
0.22	A/1005	T497A224(1)015(2)(3)	1.0	6.0	15.0
0.33	A/1005	T497A334(1)015(2)(3)	1.0	6.0	15.0
0.68	A/1005	T497A684(1)015(2)(3)	1.0	6.0	20.0
1.0	A/1005	T497A105(1)015(2)(3)	1.0	6.0	15.0
1.5	A/1005	T497A155(1)015(2)(3)	1.0	6.0	15.0
1.5	B/1505	T497B155(1)015(2)(3)	1.0	6.0	8.0
2.2	A/1005	T497A225(1)015(2)(3)	1.0	6.0	15.0
3.3	B/1505	T497B335(1)015(2)(3)	1.0	6.0	9.0
3.3	D/1510	T497D335(1)015(2)(3)	1.0	6.0	5.0
4.7	B/1505	T497B475(1)015(2)(3)	1.0	6.0	5.0
4.7	D/1510	T497D475(1)015(2)(3)	1.0	6.0	6.0
4.7	E/2010	T497E475(1)015(2)(3)	1.0	6.0	4.0
6.8	D/1510	T497D685(1)015(2)(3)	1.0	6.0	6.0
10.0	D/1510	T497D106(1)015(2)(3)	2.0	6.0	6.0
10.0	E/2010	T497E106(1)015(2)(3)	2.0	6.0	4.0
10.0	F/2214	T497F106(1)015(2)(3)	2.0	6.0	2.5
15.0	E/2010	T497E156(1)015(2)(3)	2.0	6.0	4.0
15.0	F/2214	T497F156(1)015(2)(3)	2.0	6.0	2.5
22.0	F/2214	T497F226(1)015(2)(3)	3.0	8.0	3.0
22.0	G/2711	T497G226(1)015(2)(3)	4.0	6.0	1.1
33.0	F/2214	T497F336(1)015(2)(3)	5.0	6.0	3.0
33.0	H/2915	T497H336(1)015(2)(3)	5.0	8.0	0.9
47.0	G/2711	T497G476(1)015(2)(3)	10.0	8.0	1.1
68.0	H/2915	T497H686(1)015(2)(3)	10.0	8.0	0.9
100.0	H/2915	T497H107(1)015(2)(3)	15.0	10.0	0.9
<b>20 Volt Rating at 85°C (13 Volt Rating at 125°C)</b>					
0.15	A/1005	T497A154(1)020(2)(3)	1.0	8.0	15.0
0.47	A/1005	T497A474(1)020(2)(3)	1.0	8.0	14.0
0.68	A/1005	T497A684(1)020(2)(3)	1.0	6.0	15.0
0.68	B/1505	T497B684(1)020(2)(3)	1.0	6.0	10.0
1.0	A/1005	T497A105(1)020(2)(3)	1.0	6.0	15.0
1.0	B/1505	T497B105(1)020(2)(3)	1.0	6.0	12.0
1.5	B/1505	T497B155(1)020(2)(3)	1.0	6.0	9.0
2.2	B/1505	T497B225(1)020(2)(3)	1.0	6.0	9.0
2.2	D/1510	T497D225(1)020(2)(3)	1.0	6.0	5.0
3.3	D/1510	T497D335(1)020(2)(3)	1.0	6.0	6.0
3.3	E/2010	T497E335(1)020(2)(3)	1.0	6.0	4.0
4.7	E/2010	T497E475(1)020(2)(3)	1.0	6.0	6.0
4.7	F/2214	T497F475(1)020(2)(3)	1.0	6.0	4.0
6.8	D/1510	T497D685(1)020(2)(3)	2.0	6.0	5.0
6.8	E/2010	T497E685(1)020(2)(3)	2.0	6.0	5.0
6.8	F/2214	T497F685(1)020(2)(3)	2.0	6.0	2.4
10.0	F/2214	T497F106(1)020(2)(3)	2.0	6.0	3.0
15.0	F/2214	T497F156(1)020(2)(3)	3.0	6.0	3.0
15.0	G/2711	T497G156(1)020(2)(3)	3.0	6.0	1.1
22.0	G/2711	T497G226(1)020(2)(3)	4.0	6.0	2.5
22.0	H/2915	T497H226(1)020(2)(3)	4.0	6.0	0.9
33.0	H/2915	T497H336(1)020(2)(3)	6.0	8.0	0.9
47.0	H/2915	T497H476(1)020(2)(3)	10.0	8.0	0.9
<b>25 Volt Rating at 85°C (17 Volt Rating at 125°C)</b>					
0.33	A/1005	T497A334(1)025(2)(3)	1.0	6.0	15.0
0.47	A/1005	T497A474(1)025(2)(3)	1.0	6.0	15.0
0.68	B/1505	T497B684(1)025(2)(3)	1.0	6.0	7.5
1.0	B/1505	T497B105(1)025(2)(3)	1.0	6.0	10.0
1.5	D/1510	T497D155(1)025(2)(3)	1.0	6.0	6.5
2.2	D/1510	T497D225(1)025(2)(3)	1.0	6.0	6.0
2.2	E/2010	T497E225(1)025(2)(3)	1.0	6.0	3.5
3.3	E/2010	T497E335(1)025(2)(3)	1.0	6.0	4.0
4.7	F/2214	T497F475(1)025(2)(3)	2.0	6.0	2.5
6.8	F/2214	T497F685(1)025(2)(3)	2.0	6.0	3.0
6.8	G/2711	T497G685(1)025(2)(3)	2.0	6.0	1.2
10.0	F/2214	T497F106(1)025(2)(3)	2.0	6.0	2.5
10.0	G/2711	T497G106(1)025(2)(3)	3.0	6.0	1.4
15.0	G/2711	T497G156(1)025(2)(3)	4.0	6.0	1.4
15.0	H/2915	T497H156(1)025(2)(3)	4.0	6.0	1.0
22.0	G/2711	T497G226(1)025(2)(3)	6.0	6.0	1.4
22.0	H/2915	T497H226(1)025(2)(3)	6.0	6.0	0.9
33.0	H/2915	T497H336(1)025(2)(3)	10.0	8.0	0.9

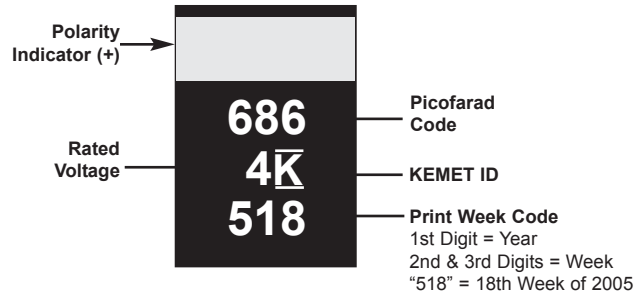
(1) To complete KEMET part number, insert Capacitance Tolerance: K = ±10%; M = ±20%.

(2) To complete KEMET part number, insert Failure Rate: A - Not Applicable; B = 0.1%/1000 Hrs.; C = 0.01%/1000 Hrs.

(3) To complete KEMET part number, insert Lead Material: T = 100% Tin; B = Gold; H = SnPb.

# T497 RATINGS & PART NUMBER REFERENCE

## COMPONENT MARKING



## PACKAGING SPECIFICATIONS

KEMET Case Codes		Tape and Reel Dimensions				
		Tape Width - mm	Pitch mm $\pm$ 0.1		Reel Quantity	
			Part	Sprocket	180mm (7" dia)	330mm (13" dia)
A	1005	8	4	4	2500	9500
B	1505	12	4	4	2500	9500
C	2005	12	4	4	2500	9500
D	1510	12	4	4	2500	9500
E	2010	12	4	4	2500	9500
F	2214	12	8	4	1000	3500
G	2711	12	8	4	500	2500
H	2915	12	8	4	500	2500
X	2824	12	8	4	500	2500

## LAND PATTERN DIMENSIONS FOR REFLOW SOLDER

Size Code		Pad Dimensions (mm)				
KEMET	EIA	Z	G	X	Y (Ref)	C (ref)
A	1005	3.42	0.18	1.85	1.73	1.78
B	1505	4.65	1.45	1.85	1.73	3.05
C	2005	5.72	2.72	1.85	1.73	4.32
D	1510	4.65	1.45	2.87	1.73	3.05
E	2010	5.72	2.72	2.87	1.73	4.32
F	2214	6.43	3.23	3.89	1.73	4.83
G	2711	7.57	3.35	3.25	2.24	5.46
H	2915	8.08	3.86	3.89	2.24	5.97
X	2824	8.08	3.28	3.07	2.54	5.66

