

TBC Series

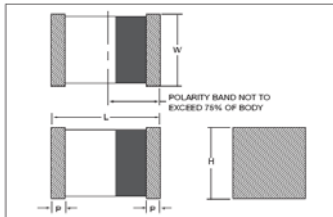
CWR15 Military Approved Microchip



AVX announces the world's smallest military approved tantalum chip capacitors. The CWR15 offers 0603, 0805 and 1206 case sizes in capacitance/voltage combinations previously only available in much larger packages. The revolutionary AVX TACmicrochip technology offers designers significant opportunity

to downsize circuits for military and aerospace applications. The product is manufactured in the AVX Tantalum high reliability facility in Biddeford, Maine which is also home to the CWR09, CWR11, CWR19 and CWR29 product lines.

CASE DIMENSIONS: millimeters (inches)



Case Code	Length (L)	Width (W)	Height (H)	Term. Width (W1)
L	1.60 ^{+0.25} _{-0.15} (0.063 ^{+0.010} _{-0.006})	0.85 ^{+0.20} _{-0.10} (0.033 ^{+0.008} _{-0.004})	0.85 ^{+0.20} _{-0.10} (0.063 ^{+0.010} _{-0.006})	0.15 ^{+0.35} _{-0.00} (0.006 ^{+0.014} _{-0.000})
R	2.00 ^{+0.25} _{-0.15} (0.079 ^{+0.010} _{-0.006})	1.35 ^{+0.20} _{-0.10} (0.053 ^{+0.008} _{-0.004})	2.00 ^{+0.25} _{-0.15} (0.079 ^{+0.010} _{-0.006})	0.15 ^{+0.35} _{-0.00} (0.006 ^{+0.014} _{-0.000})
A	3.20±0.20 (0.126±0.008)	1.60.20±0.20 (0.063±0.008)	3.20±0.20 (0.126±0.008)	0.15 ^{+0.35} _{-0.00} (0.006 ^{+0.014} _{-0.000})

HOW TO ORDER

CWR15	F	K	225	*	-	L	+
Type	Voltage Code C = 4Vdc D = 6Vdc F = 10Vdc	Termination Finish Solder Fused	Capacitance Code 1 st two digits represent significant figures 3 rd digit represents multiplier (number of zeros to follow)	Capacitance Tolerance M = ±20% K = ±10% J = ±5%	Product Level Designator Weibull FRL B = 0.1 C = 0.01 D = 0.001	Case Size	Surge Test Option A = +25°C after Weibull B = -55°C to +85°C after Weibull C = -55°C to +85°C before Weibull

TECHNICAL SPECIFICATIONS

Technical Data:		Unless otherwise specified, all technical data relate to an ambient temperature of 25°C		
Capacitance Range:	2.2µF to 68µF			
Capacitance Tolerance:	±5%; ±10%; ±20%			
Rated Voltage (V _R)	≤ +85°C:	4	6	10
Category Voltage (V _C)	125°C:	2.7	4	7
Surge Voltage (V _S)	≤ +85°C:	5.2	8	13
Surge Voltage (V _S)	125°C:	3.4	5	8
Temperature Range:	-55°C to +125°C			

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CAPACITANCE AND RATED VOLTAGE, V_R (VOLTAGE CODE) RANGE (LETTER DENOTES CASE SIZE)

Capacitance		Rated voltage DC (V _R) to 85°C			
µF	Code	4V (C)	6V (D)	10V (F)	15V
1.0	105				
1.5	155				
2.2	225			L	
3.3	335			L/R	
4.7	475		L	R	
6.8	685	L	R	R	
10	106	R	R	R	
15	156	R	R	A	
22	226	R	R		
33	336	R	A		
47	476	A	A		
68	686	A			

RATINGS & PART NUMBER REFERENCE

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (Ohms)	DC Leakage (max)			Discipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
CWR15CK685*-L+	L	6.8	4	10	0.5	5	6	8	16	12
	R	10	4							
	R	15	4							
CWR15CK226*-R+	R	22	4	6	0.9	9	11	8	16	12
CWR15CK336*-R+	R	33	4	6	1.3	13	16	10	20	15
	A	47	4							
CWR15CK686*-A+	A	68	4	1	2.7	27	33	15	30	23
CWR15DK335*-L+	L	3.3	6	10	0.5	5	6	6	12	9
CWR15DK475*-L+	L	4.7	6	10	0.5	5	6	8	16	12
	R	6.8	6							
	R	10	6							
CWR15DK156*-R+	R	15	6	6	0.9	9	11	8	16	12
CWR15DK226*-A+	A	22	6	6	1.4	14	17	10	20	15
	R	22	6							
CWR15DK336*-A+	A	33	6	6	2	20	24	10	20	15
CWR15DK476*-A+	A	47	6	4	2.8	28	34	15	30	23
CWR15FK474*-L+	L	0.47	10	12	0.5	5	6	6	12	9
CWR15FK684*-L+	L	0.68	10	10	0.5	5	6	6	12	9
CWR15FK105*-L+	L	1	10	10	0.5	5	6	6	12	9
CWR15FK155*-L+	L	1.5	10	10	0.5	5	6	6	12	9
CWR15FK225*-L+	L	2.2	10	10	0.5	5	6	6	12	9
CWR15FK335*-R+	R	3.3	10	6	0.5	5	6	8	16	12
	L	3.3	10							
CWR15FK475*-R+	R	4.7	10	6	0.5	5	6	8	16	12
CWR15FK685*-R+	R	6.8	10	6	0.7	7	8.5	8	16	12
CWR15FK106*-R+	R	10	10	6	1	10	12	8	16	12
CWR15FK156*-A+	A	10	10	6	1.5	15	18	10	20	15
	A	15	10							