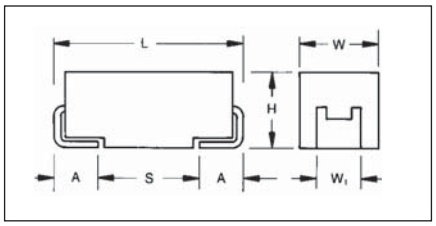
TAZ Series

CWR09 - MIL-PRF-55365/4

Fully qualified to MIL-PRF-55365/4, this series represents the most flexible of surface mount form factors, offering eight case sizes (A through H). This series is fully interchangeable with CWR06 conformal types, while offering the advantages of molded body/compliant termination construction, polarity and capacitance. The molded construction is compatible with a wide range of SMT board assembly processes including wave or reflow solder, conductive epoxy or compression bonding techniques. The five smaller cases are characterized by their low profile construction, with the A case being the world's smallest molded military tantalum. There are three termination finishes available: fused solder plated ("K" per MIL-PRF-55365), hot solder dipped ("C") and gold plated ("B"). In addition, the molding compound has been selected to meet the requirements of UL94V-0 and outgassing requirements of NASA SP-R-0022A.



MARKING

(White marking on black body)

Polarity Stripe (+)

Capacitance Code
Rated Voltage

CASE DIMENSIONS:

millimeters (inches)

Case Code	Length (L) ±0.38 (0.015)	Width (W) ±0.38 (0.015)	Height (H) ±0.38 (0.015)	Term. Width (W_1)	Term. Length (A) ±0.13 (0.005)	S min
A	2.54 (0.100)	1.27 (0.050)	1.27 (0.050)	1.27±0.13 (0.050±0.005)	0.76 (0.030)	1.80 (0.071)
B	3.81 (0.150)	1.27 (0.050)	1.27 (0.050)	1.27±0.13 (0.050±0.005)	0.76 (0.030)	1.65 (0.065)
C	5.08 (0.200)	1.27 (0.050)	1.27 (0.050)	1.27±0.13 (0.050±0.005)	0.76 (0.030)	2.92 (0.115)
D	3.81 (0.150)	2.54 (0.100)	1.27 (0.050)	2.41+0.13/-0.25 (0.095+0.005/-0.010)	0.76 (0.030)	1.65 (0.065)
E	5.08 (0.200)	2.54 (0.100)	1.27 (0.050)	2.41+0.13/-0.25 (0.095+0.005/-0.010)	0.76 (0.030)	2.92 (0.115)
F	5.59 (0.220)	3.43 (0.135)	1.78 (0.070)	3.30±0.13 (0.130±0.005)	0.76 (0.030)	3.43 (0.135)
G	6.73 (0.265)	2.79 (0.110)	2.79 (0.110)	2.67±0.13 (0.105±0.005)	1.27 (0.050)	3.56 (0.140)
H	7.24 (0.285)	3.81 (0.150)	2.79 (0.110)	3.68+0.13/-0.51 (0.145+0.005/-0.020)	1.27 (0.050)	0.70 (0.028)

HOW TO ORDER

CWR09	J	^	225	*	@	+	□
Type	**Voltage Code** C = 4Vdc D = 6Vdc F = 10Vdc H = 15Vdc J = 20Vdc K = 25Vdc M = 35Vdc N = 50Vdc	**Termination Finish** K = Solder Fused C = Hot Solder Dipped B = Gold Plated	**Capacitance Code** pF code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow)	**Capacitance Tolerance** M = ±20% K = ±10% J = ±5%	**Reliability Grade** Weibull: B = 0.1%/1000 Hrs. (90% C = 0.01%/1000 Hrs. conf.) Comm: Z = Non ER	**Surge Test Option** A = 10 cycles, +25°C B = 10 cycles, -55°C & +85°C C = 10 cycles, -55°C & +85°C before Weibull	**Packaging** Bulk = Standard \TR = 7" T&R \TR13 = 13" T&R \W = Waffle

TECHNICAL SPECIFICATIONS

Technical Data:		Unless otherwise specified, all technical data relate to an ambient temperature of 25°C							
Capacitance Range:		0.1 µF to 100 µF							
Capacitance Tolerance:		±5%; ±10%; ±20%							
Rated Voltage: (V_R)	≤85°C:	4	6	10	15	20	25	35	50
Category Voltage: (V_C)	125°C:	2.7	4	7	10	13	17	23	33
Surge Voltage: (V_S)	≤85°C:	5.2	8	13	20	26	32	46	65
	125°C:	3.4	5	8	13	16	20	28	40
Temperature Range:		-55°C to +125°C							

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

Capacitance		Rated voltage DC (V_R) at 85°C							
µF	Code	4V (C)	6V (D)	10V (F)	15V (H)	20V (J)	25V (K)	35V (M)	50V (N)
0.10	104								A
0.15	154								A
0.22	224							A	B
0.33	334						A		B
0.47	474					A		B	C
0.68	684				A	B	B	C	D
1.0	105			A		B	C	D	E
1.5	155		A		B	C	D	E	F
2.2	225	A		B	C	D	E		F
3.3	335		B	C	D	E		F	G
4.7	475	B	C	D	E		F	G	H
6.8	685	C	D	E		F	G	H	
10	106	D	E		F		G		
15	156	E		F		G	H		
22	226		F		G	H			
33	336	F		G	H				
47	476		G	H					
68	686	G	H						
100	107	H							
150	157								
220	227								

TAZ Series

CWR09 - MIL-PRF-55365/4

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
CWR09C^225*@+☐	A	2.2	4	8	1	10	12	6	8	8
CWR09C^475*@+☐	B	4.7	4	8	1	10	12	6	8	8
CWR09C^685*@+☐	C	6.8	4	5.5	1	10	12	6	8	8
CWR09C^106*@+☐	D	10	4	4	1	10	12	8	8	10
CWR09C^156*@+☐	E	15	4	3.5	1	10	12	8	10	12
CWR09C^336*@+☐	F	33	4	2.2	2	20	24	8	10	12
CWR09C^686*@+☐	G	68	4	1.1	3	30	36	10	12	12
CWR09C^107*@+☐	H	100	4	0.9	4	40	48	10	12	12
CWR09D^155*@+☐	A	1.5	6	8	1	10	12	6	8	8
CWR09D^335*@+☐	B	3.3	6	8	1	10	12	6	8	8
CWR09D^475*@+☐	C	4.7	6	5.5	1	10	12	6	8	8
CWR09D^685*@+☐	D	6.8	6	4.5	1	10	12	6	8	8
CWR09D^106*@+☐	E	10	6	3.5	1	10	12	8	10	12
CWR09D^226*@+☐	F	22	6	2.2	2	20	24	8	10	12
CWR09D^476*@+☐	G	47	6	1.1	3	30	36	10	12	12
CWR09D^686*@+☐	H	68	6	0.9	4	40	48	10	12	12
CWR09F^105*@+☐	A	1	10	10	1	10	12	6	8	8
CWR09F^225*@+☐	B	2.2	10	8	1	10	12	6	8	8
CWR09F^335*@+☐	C	3.3	10	5.5	1	10	12	6	8	8
CWR09F^475*@+☐	D	4.7	10	4.5	1	10	12	6	8	8
CWR09F^685*@+☐	E	6.8	10	3.5	1	10	12	6	8	8
CWR09F^156*@+☐	F	15	10	2.5	2	20	24	8	8	10
CWR09F^336*@+☐	G	33	10	1.1	3	30	36	10	12	12
CWR09F^476*@+☐	H	47	10	0.9	5	50	60	10	12	12
CWR09H^684*@+☐	A	0.68	15	12	1	10	12	6	8	8
CWR09H^155*@+☐	B	1.5	15	8	1	10	12	6	8	8
CWR09H^225*@+☐	C	2.2	15	5.5	1	10	12	6	8	8
CWR09H^335*@+☐	D	3.3	15	5	1	10	12	6	8	8
CWR09H^475*@+☐	E	4.7	15	4	1	10	12	6	8	8
CWR09H^106*@+☐	F	10	15	2.5	2	20	24	6	8	8
CWR09H^226*@+☐	G	22	15	1.1	4	40	48	6	8	8
CWR09H^336*@+☐	H	33	15	0.9	5	50	60	8	8	10
CWR09J^474*@+☐	A	0.47	20	14	1	10	12	8	10	10
CWR09J^684*@+☐	B	0.68	20	10	1	10	12	6	8	8
CWR09J^105*@+☐	B	1	20	12	1	10	12	6	8	8
CWR09J^155*@+☐	C	1.5	20	6	1	10	12	6	8	8
CWR09J^225*@+☐	D	2.2	20	5	1	10	12	6	8	8
CWR09J^335*@+☐	E	3.3	20	4	1	10	12	6	8	8
CWR09J^685*@+☐	F	6.8	20	2.4	2	20	24	6	8	8
CWR09J^156*@+☐	G	15	20	1.1	3	30	36	6	8	8
CWR09J^226*@+☐	H	22	20	0.9	4	40	48	6	8	8
CWR09K^334*@+☐	A	0.33	25	15	1	10	12	6	8	8
CWR09K^684*@+☐	B	0.68	25	7.5	1	10	12	6	8	8
CWR09K^105*@+☐	C	1	25	6.5	1	10	12	6	8	8

TAZ Series

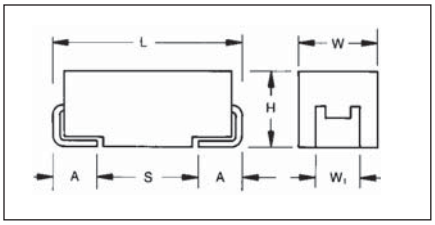
CWR09 - MIL-PRF-55365/4

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
CWR09K^155*@+☐	D	1.5	25	6.5	1	10	12	6	8	8
CWR09K^225*@+☐	E	2.2	25	3.5	1	10	12	6	8	8
CWR09K^475*@+☐	F	4.7	25	2.5	2	20	24	6	8	8
CWR09K^685*@+☐	G	6.8	25	1.2	2	20	24	6	8	8
CWR09K^106*@+☐	G	10	25	1.4	3	30	36	6	8	8
CWR09K^156*@+☐	H	15	25	1	4	40	48	6	8	8
CWR09M^224*@+☐	A	0.22	35	18	1	10	12	6	8	8
CWR09M^474*@+☐	B	0.47	35	10	1	10	12	6	8	8
CWR09M^684*@+☐	C	0.68	35	8	1	10	12	6	8	8
CWR09M^105*@+☐	D	1	35	6.5	1	10	12	6	8	8
CWR09M^155*@+☐	E	1.5	35	4.5	1	10	12	6	8	8
CWR09M^335*@+☐	F	3.3	35	2.5	1	10	12	6	8	8
CWR09M^475*@+☐	G	4.7	35	1.5	2	20	24	6	8	8
CWR09M^685*@+☐	H	6.8	35	1.3	3	30	36	6	8	8
CWR09N^104*@+☐	A	0.1	50	22	1	10	12	6	8	8
CWR09N^154*@+☐	A	0.15	50	17	1	10	12	6	8	8
CWR09N^224*@+☐	B	0.22	50	14	1	10	12	6	8	8
CWR09N^334*@+☐	B	0.33	50	12	1	10	12	6	8	8
CWR09N^474*@+☐	C	0.47	50	8	1	10	12	6	8	8
CWR09N^684*@+☐	D	0.68	50	7	1	10	12	6	8	8
CWR09N^105*@+☐	E	1	50	6	1	10	12	6	8	8
CWR09N^155*@+☐	F	1.5	50	4	1	10	12	6	8	8
CWR09N^225*@+☐	F	2.2	50	2.5	2	20	24	6	8	8
CWR09N^335*@+☐	G	3.3	50	2	2	20	24	6	8	8
CWR09N^475*@+☐	H	4.7	50	1.5	3	30	36	6	8	8

TAZ Series

CWR19 - MIL-PRF-55365/11

An extended range of capacitor ratings beyond CWR09 that is fully qualified to MIL-PRF-55365/11, this series represents the most flexible of surface mount form factors, offering nine case sizes. The molded construction is compatible with a wide range of SMT board assembly processes including wave or reflow solder, conductive epoxy or compression bonding techniques. The five smaller cases are characterized by their low profile construction; with the A case being the world's smallest molded military tantalum. There are three termination finishes available: fused solder plated ("K" per MIL-PRF-55365), hot solder dipped ("C") and gold plated ("B"). In addition, the molding compound has been selected to meet the requirements of UL94V-0 (Flame Retardancy) and requirements of NASA SP-R-0022A (Outgassing).



MARKING

(White marking on black body)

Polarity Stripe (+)

Capacitance Code
Rated Voltage

CASE DIMENSIONS:

millimeters (inches)

Case Code	Length (L) ±0.38 (0.015)	Width (W) ±0.38 (0.015)	Height (H) ±0.38 (0.015)	Term. Width (W_1)	Term. Length (A) ±0.13 (0.005)	S min
A	2.54 (0.100)	1.27 (0.050)	1.27 (0.050)	1.27±0.13 (0.050±0.005)	0.76 (0.030)	1.80 (0.071)
B	3.81 (0.150)	1.27 (0.050)	1.27 (0.050)	1.27±0.13 (0.050±0.005)	0.76 (0.030)	1.65 (0.065)
C	5.08 (0.200)	1.27 (0.050)	1.27 (0.050)	1.27±0.13 (0.050±0.005)	0.76 (0.030)	2.92 (0.115)
D	3.81 (0.150)	2.54 (0.100)	1.27 (0.050)	2.41+0.13/-0.25 (0.095+0.005/-0.010)	0.76 (0.030)	1.65 (0.065)
E	5.08 (0.200)	2.54 (0.100)	1.27 (0.050)	2.41+0.13/-0.25 (0.095+0.005/-0.010)	0.76 (0.030)	2.92 (0.115)
F	5.59 (0.220)	3.43 (0.135)	1.78 (0.070)	3.30±0.13 (0.130±0.005)	0.76 (0.030)	3.43 (0.135)
G	6.73 (0.265)	2.79 (0.110)	2.79 (0.110)	2.67±0.13 (0.105±0.005)	1.27 (0.050)	3.56 (0.140)
H	7.24 (0.285)	3.81 (0.150)	2.79 (0.110)	3.68+0.13/-0.51 (0.145+0.005/-0.020)	1.27 (0.050)	0.70 (0.028)
X	6.93 Max (0.273)	5.41 Max (0.213)	2.74 Max (0.108)	3.05±0.13 (0.120±0.005)	1.19 (0.047)	N/A

HOW TO ORDER

CWR19	J	–	225	*	@	D	+	□
Type	**Voltage Code** C = 4Vdc D = 6Vdc F = 10Vdc H = 15Vdc J = 20Vdc K = 25Vdc M = 35Vdc N = 50Vdc	**Termination Finish** K = Fused Solder Plated C = Hot Solder Dipped B = Gold Plated	**Capacitance Code** pF code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow)	**Capacitance Tolerance** M = ±20% K = ±10% J = ±5%	**Reliability Grade** Weibull: B = 0.1%/1000 Hrs. (90% C = 0.01%/1000 Hrs. conf.) Comm: Z = Non ER	**Case Size**	**Surge Test Option** A = 10 cycles, +25°C B = 10 cycles, -55°C & +85°C C = 10 cycles, -55°C & +85°C before Weibull Z = None required	**Packaging** Bulk = Standard \TR = 7" T&R \TR13 = 13" T&R \W = Waffle

TECHNICAL SPECIFICATIONS

Technical Data:		Unless otherwise specified, all technical data relate to an ambient temperature of 25°C							
Capacitance Range:		0.33 µF to 330 µF							
Capacitance Tolerance:		±5%; ±10%; ±20%							
Rated Voltage: (V_R)	≤85°C:	4	6	10	15	20	25	35	50
Category Voltage: (V_C)	125°C:	2.7	4	7	10	13	17	23	33
Surge Voltage: (V_S)	≤85°C:	5.2	8	13	20	26	32	46	65
	125°C:	3.4	5	8	13	16	20	28	40
Temperature Range:		-55°C to +125°C							

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

Capacitance		Rated voltage DC (V_R) at 85°C							
µF	Code	4V (C)	6V (D)	10V (F)	15V (H)	20V (J)	25V (K)	35V (M)	50V (N)
0.10	104								
0.15	154								
0.22	224								
0.33	334							A	
0.47	474						A		C
0.68	684					A		C	
1.0	105				A	A	B/C		
1.5	155				A	B/C			
2.2	225			A	A/C	B	D		
3.3	335	A	A	A/C	B	D	E		
4.7	475	A	A/C	B/C	B/C/D	E			
6.8	685	A/C	B	B/C/D	D/E	E	F	G	
10	106	B	B	B/C/D/E	D/E	E/F		H	
15	156	B	B/D/E	D/E	E/F	F	G	X	
22	226	B/D	D/E	E	F	G	G/H/X		
33	336	D/E	E	F	F/G	H	H/X		
47	476	E	F	F/G	G/H	H/X			
68	686	E	F/G	G	G/H				
100	107	F	G	G/H	H				
150	157	G	G	H/X					
220	227	G	H	H					
330	337	H	H						

TAZ Series

CWR19 - MIL-PRF-55365/11

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
CWR19C-335*@A+☐	A	3.3	4	12	1	10	12	6	8	8
CWR19C-475*@A+☐	A	4.7	4	12	1	10	12	6	8	8
CWR19C-685*@A+☐	A	6.8	4	12	1	10	12	6	8	8
CWR19C-685*@C+☐	C	6.8	4	5.5	1	10	12	6	8	8
CWR19C-106*@B+☐	B	10	4	8	1	10	12	8	10	10
CWR19C-156*@B+☐	B	15	4	8	1	10	12	8	10	10
CWR19C-226*@B+☐	B	22	4	8	1	10	12	8	10	10
CWR19C-226*@D+☐	D	22	4	4	1	10	12	8	10	12
CWR19C-336*@D+☐	D	33	4	4	2	20	24	8	10	12
CWR19C-336*@E+☐	E	33	4	3	2	20	24	8	10	12
CWR19C-476*@E+☐	E	47	4	3	2	20	24	8	10	12
CWR19C-686*@E+☐	E	68	4	3	3	30	36	8	10	12
CWR19C-107*@F+☐	F	100	4	2	4	40	48	10	12	12
CWR19C-157*@G+☐	G	150	4	1	6	60	72	10	12	12
CWR19C-227*@H+☐	H	220	4	1	8	80	96	10	12	12
CWR19C-337*@H+☐	H	330	4	0.9	10	100	120	10	12	12
CWR19D-335*@A+☐	A	3.3	6	12	1	10	12	6	8	8
CWR19D-475*@A+☐	A	4.7	6	12	1	10	12	6	8	8
CWR19D-475*@C+☐	C	4.7	6	5.5	1	10	12	6	8	8
CWR19D-685*@B+☐	B	6.8	6	8	1	10	12	6	8	8
CWR19D-106*@B+☐	B	10	6	8	1	10	12	6	8	8
CWR19D-156*@B+☐	B	15	6	8	1	10	12	8	10	10
CWR19D-156*@D+☐	D	15	6	5	1	10	12	8	10	12
CWR19D-156*@E+☐	E	15	6	3	1	10	12	8	10	12
CWR19D-226*@D+☐	D	22	6	5	1	10	12	6	8	8
CWR19D-226*@E+☐	E	22	6	3.5	2	20	24	8	10	12
CWR19D-336*@E+☐	E	33	6	3.5	2	20	24	6	8	8
CWR19D-476*@F+☐	F	47	6	3.5	3	30	36	8	10	12
CWR19D-686*@F+☐	F	68	6	1.5	4	40	48	10	12	12
CWR19D-686*@G+☐	G	68	6	1	4	40	48	10	12	12
CWR19D-107*@G+☐	G	100	6	1.1	6	60	72	10	12	12
CWR19D-157*@G+☐	G	150	6	1.1	10	100	120	10	12	12
CWR19D-227*@H+☐	H	220	6	0.9	10	100	120	10	12	12
CWR19D-337*@H+☐	H	330	6	0.9	20	200	240	10	12	12
CWR19F-225*@A+☐	A	2.2	10	12	1	10	12	6	8	8
CWR19F-335*@A+☐	A	3.3	10	12	1	10	12	6	8	8
CWR19F-335*@C+☐	C	3.3	10	5.5	1	10	12	6	8	8
CWR19F-475*@B+☐	B	4.7	10	8	1	10	12	6	8	8
CWR19F-475*@C+☐	C	4.7	10	5.5	1	10	12	6	8	8
CWR19F-685*@B+☐	B	6.8	10	8	1	10	12	6	8	8
CWR19F-685*@C+☐	C	6.8	10	5.5	1	10	12	6	8	8
CWR19F-685*@D+☐	D	6.8	10	5	1	10	12	6	8	8
CWR19F-106*@B+☐	B	10	10	8	1	10	12	8	10	10

TAZ Series

CWR19 - MIL-PRF-55365/11

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
CWR19F-106*@C+☐	C	10	10	5.5	1	10	12	6	8	8
CWR19F-106*@D+☐	D	10	10	4	1	10	12	6	8	8
CWR19F-106*@E+☐	E	10	10	3.5	1	10	12	6	8	8
CWR19F-156*@D+☐	D	15	10	5	2	20	24	6	8	8
CWR19F-156*@E+☐	E	15	10	3	2	20	24	8	10	10
CWR19F-226*@E+☐	E	22	10	2	3	30	36	8	10	10
CWR19F-336*@F+☐	F	33	10	1.5	3	30	36	8	10	10
CWR19F-476*@F+☐	F	47	10	1.5	4	40	48	10	12	12
CWR19F-476*@G+☐	G	47	10	1	4	40	48	10	12	12
CWR19F-686*@G+☐	G	68	10	1.1	6	60	72	10	12	12
CWR19F-107*@G+☐	G	100	10	1.1	10	100	120	10	12	12
CWR19F-107*@H+☐	H	100	10	0.9	10	100	120	10	12	12
CWR19F-157*@H+☐	H	150	10	0.9	15	150	180	10	12	12
CWR19F-157*@X+☐	X	150	10	0.9	15	150	180	10	12	12
CWR19F-227*@H+☐	H	220	10	0.9	20	200	240	10	12	12
CWR19H-105*@A+☐	A	1	15	15	1	10	12	6	8	8
CWR19H-155*@A+☐	A	1.5	15	15	1	10	12	6	8	8
CWR19H-225*@A+☐	A	2.2	15	15	1	10	12	6	8	8
CWR19H-225*@C+☐	C	2.2	15	5.5	1	10	12	6	8	8
CWR19H-335*@B+☐	B	3.3	15	9	1	10	12	6	8	8
CWR19H-475*@B+☐	B	4.7	15	5	1	10	12	6	8	8
CWR19H-475*@C+☐	C	4.7	15	5.5	1	10	12	6	8	8
CWR19H-475*@D+☐	D	4.7	15	6	1	10	12	6	8	8
CWR19H-685*@D+☐	D	6.8	15	6	1	10	12	6	8	8
CWR19H-685*@E+☐	E	6.8	15	3	1	10	12	8	10	12
CWR19H-106*@D+☐	D	10	15	6	2	20	24	6	8	8
CWR19H-106*@E+☐	E	10	15	4	2	20	24	6	8	8
CWR19H-156*@E+☐	E	15	15	4	2	20	24	6	8	8
CWR19H-156*@F+☐	F	15	15	3	2	20	24	8	10	10
CWR19H-226*@F+☐	F	22	15	3	3	30	36	8	10	10
CWR19H-336*@F+☐	F	33	15	3	5	50	60	6	8	8
CWR19H-336*@G+☐	G	33	15	1.1	6	60	72	8	10	10
CWR19H-476*@G+☐	G	47	15	1.1	10	100	120	8	10	10
CWR19H-476*@H+☐	H	47	15	0.9	10	100	120	8	10	10
CWR19H-686*@G+☐	G	68	15	1.1	10	100	120	8	10	10
CWR19H-686*@H+☐	H	68	15	0.9	10	100	120	8	10	10
CWR19H-107*@H+☐	H	100	15	0.9	15	150	180	10	12	12
CWR19J-684*@A+☐	A	0.68	20	15	1	10	12	6	8	8
CWR19J-105*@A+☐	A	1	20	15	1	10	12	6	8	8
CWR19J-155*@B+☐	B	1.5	20	9	1	10	12	6	8	8
CWR19J-155*@C+☐	C	1.5	20	6	1	10	12	6	8	8
CWR19J-225*@B+☐	B	2.2	20	9	1	10	12	6	8	8
CWR19J-335*@D+☐	D	3.3	20	6	1	10	12	6	8	8

TAZ Series

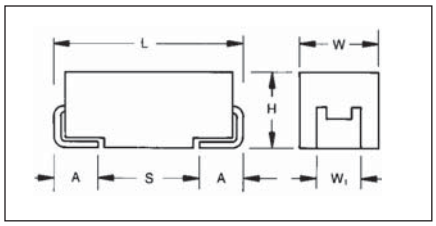
CWR19 - MIL-PRF-55365/11

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
CWR19J-475*@E+☐	E	4.7	20	6	1	10	12	6	8	8
CWR19J-685*@E+☐	E	6.8	20	5	2	20	24	6	8	8
CWR19J-106*@E+☐	E	10	20	5	2	20	24	6	8	8
CWR19J-106*@F+☐	F	10	20	3	2	20	24	6	8	8
CWR19J-156*@F+☐	F	15	20	3	3	30	36	6	8	8
CWR19J-226*@G+☐	G	22	20	2.5	4	40	48	6	8	8
CWR19J-336*@H+☐	H	33	20	0.9	6	60	72	8	10	10
CWR19J-476*@H+☐	H	47	20	0.9	10	100	120	8	10	10
CWR19J-476*@X+☐	X	47	20	0.9	10	100	120	8	10	10
CWR19K-474*@A+☐	A	0.47	25	15	1	10	12	6	8	8
CWR19K-105*@B+☐	B	1	25	10	1	10	12	6	8	8
CWR19K-105*@C+☐	C	1	25	6.5	1	10	12	6	8	8
CWR19K-225*@D+☐	D	2.2	25	6	1	10	12	6	8	8
CWR19K-335*@E+☐	E	3.3	25	4	1	10	12	6	8	8
CWR19K-685*@F+☐	F	6.8	25	3	2	20	24	6	8	8
CWR19K-156*@G+☐	G	15	25	1.4	4	40	48	6	8	8
CWR19K-226*@G+☐	G	22	25	1.4	6	60	72	6	8	8
CWR19K-226*@H+☐	H	22	25	0.9	6	60	72	6	8	8
CWR19K-226*@X+☐	X	22	25	0.9	6	60	72	6	8	8
CWR19K-336*@H+☐	H	33	25	0.9	10	100	120	8	10	10
CWR19K-336*@X+☐	X	33	25	0.9	10	100	120	8	10	10
CWR19M-334*@A+☐	A	0.33	35	22	1	10	12	6	8	8
CWR19M-684*@C+☐	C	0.68	35	10	1	10	12	6	8	8
CWR19M-685*@G+☐	G	6.8	35	1.5	3	30	36	6	8	8
CWR19M-106*@H+☐	H	10	35	0.9	4	40	48	8	10	10
CWR19M-156*@X+☐	X	15	35	0.9	6	60	72	6	8	8
CWR19N-474*@C+☐	C	0.47	50	8	1	10	12	6	8	8

TAZ Series

CWR29 - MIL-PRF-55365/11

A low ESR version of CWR09 and CWR19 that is fully qualified to MIL-PRF-55365/11, this series represents the most flexible of surface mount form factors, offering nine case sizes. The molded construction is compatible with a wide range of SMT board assembly processes including wave or reflow solder, conductive epoxy or compression bonding techniques. The five smaller cases are characterized by their low profile construction; with the A case being the world's smallest molded military tantalum. There are three termination finishes available: fused solder plated ("K" per MIL-PRF-55365), hot solder dipped ("C") and gold plated ("B"). In addition, the molding compound has been selected to meet the requirements of UL94V-0 (Flame Retardancy) and requirements of NASA SP-R-0022A (Outgassing).



MARKING

(White marking on black body)

Polarity Stripe (+)

Capacitance Code
Rated Voltage

CASE DIMENSIONS:

millimeters (inches)

Case Code	Length (L) ±0.38 (0.015)	Width (W) ±0.38 (0.015)	Height (H) ±0.38 (0.015)	Term. Width (W_1)	Term. Length (A) ±0.13 (0.005)	S min
A	2.54 (0.100)	1.27 (0.050)	1.27 (0.050)	1.27±0.13 (0.050±0.005)	0.76 (0.030)	1.80 (0.071)
B	3.81 (0.150)	1.27 (0.050)	1.27 (0.050)	1.27±0.13 (0.050±0.005)	0.76 (0.030)	1.65 (0.065)
C	5.08 (0.200)	1.27 (0.050)	1.27 (0.050)	1.27±0.13 (0.050±0.005)	0.76 (0.030)	2.92 (0.115)
D	3.81 (0.150)	2.54 (0.100)	1.27 (0.050)	2.41+0.13/-0.25 (0.095+0.005/-0.010)	0.76 (0.030)	1.65 (0.065)
E	5.08 (0.200)	2.54 (0.100)	1.27 (0.050)	2.41+0.13/-0.25 (0.095+0.005/-0.010)	0.76 (0.030)	2.92 (0.115)
F	5.59 (0.220)	3.43 (0.135)	1.78 (0.070)	3.30±0.13 (0.130±0.005)	0.76 (0.030)	3.43 (0.135)
G	6.73 (0.265)	2.79 (0.110)	2.79 (0.110)	2.67±0.13 (0.105±0.005)	1.27 (0.050)	3.56 (0.140)
H	7.24 (0.285)	3.81 (0.150)	2.79 (0.110)	3.68+0.13/-0.51 (0.145+0.005/-0.020)	1.27 (0.050)	0.70 (0.028)
X	6.93 Max (0.273)	5.41 Max (0.213)	2.74 Max (0.108)	3.05±0.13 (0.120±0.005)	1.19 (0.047)	N/A

HOW TO ORDER

CWR29	J	–	225	*	@	D	+	□
Type	**Voltage Code** C = 4Vdc D = 6Vdc F = 10Vdc H = 15Vdc J = 20Vdc K = 25Vdc M = 35Vdc N = 50Vdc	**Termination Finish** K = Fused Solder Plated C = Hot Solder Dipped B = Gold Plated	**Capacitance Code** pF code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow)	**Capacitance Tolerance** M = ±20% K = ±10% J = ±5%	**Reliability Grade** Weibull: B = 0.1%/1000 Hrs. (90% C = 0.01%/1000 Hrs. conf.) Comm: Z = Non ER	**Case Size**	**Surge Test Option** A = 10 cycles, +25°C B = 10 cycles, -55°C & +85°C C = 10 cycles, -55°C & +85°C before Weibull Z = None required	**Packaging** Bulk = Standard \TR = 7" T&R \TR13 = 13" T&R \W = Waffle

TECHNICAL SPECIFICATIONS

Technical Data:		Unless otherwise specified, all technical data relate to an ambient temperature of 25°C							
Capacitance Range:		0.33 µF to 330 µF							
Capacitance Tolerance:		±5%; ±10%; ±20%							
Rated Voltage: (V_R)	≤85°C:	4	6	10	15	20	25	35	50
Category Voltage: (V_C)	125°C:	2.7	4	7	10	13	17	23	33
Surge Voltage: (V_S)	≤85°C:	5.2	8	13	20	26	32	46	65
	125°C:	3.4	5	8	13	16	20	28	40
Temperature Range:		-55°C to +125°C							

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

Capacitance		Rated voltage DC (V_R) at 85°C							
µF	Code	4V (C)	6V (D)	10V (F)	15V (H)	20V (J)	25V (K)	35V (M)	50V (N)
0.10	104								A
0.15	154								A
0.22	224							A	B
0.33	334						A	A	B
0.47	474					A	A	B	C
0.68	684				A	A/B	B	C	D
1.0	105			A	A	A/B	B/C	D	E
1.5	155		A		A/B	B/C	D	E	F
2.2	225	A		A/B	A/C	B/D	D/E		F
3.3	335	A	A/B	A/C	B/D	D/E	E	F	G
4.7	475	A/B	A/C	B/C/D	B/C/D/E	E	F	G	H
6.8	685	A/C	B/D	B/C/D/E	D/E	E/F	F/G	G/H	
10	106	B/D	B/E	B/C/D/E	D/E/F	E/F	G	H	
15	156	B/E	B/D/E	D/E/F	E/F	F/G	G/H	X	
22	226	B/D	D/E/F	E	F/G	G/H	G/H/X		
33	336	D/E/F	E	F/G	F/G/H	H	H/X		
47	476	E	F/G	F/G/H	G/H	H/X			
68	686	E/G	F/G/H	G	G/H				
100	107	F/H	G	G/H	H				
150	157	G	G	H/X					
220	227	G	H	H					
330	337	H	H						

TAZ Series

CWR29 - MIL-PRF-55365/11

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
CWR29C-225*@A+☐	A	2.2	4	4	1	10	12	6	8	8
CWR29C-335*@A+☐	A	3.3	4	6	1	10	12	6	8	8
CWR29C-475*@A+☐	A	4.7	4	6	1	10	12	6	8	8
CWR29C-475*@B+☐	B	4.7	4	3.2	1	10	12	6	8	8
CWR29C-685*@A+☐	A	6.8	4	6	1	10	12	6	8	8
CWR29C-685*@C+☐	C	6.8	4	2.2	1	10	12	6	8	8
CWR29C-106*@B+☐	B	10	4	3.2	1	10	12	8	10	10
CWR29C-106*@D+☐	D	10	4	1.3	1	10	12	8	8	10
CWR29C-156*@B+☐	B	15	4	3.2	1	10	12	8	10	10
CWR29C-156*@E+☐	E	15	4	1	1	10	12	8	10	12
CWR29C-226*@B+☐	B	22	4	3.2	1	10	12	8	10	10
CWR29C-226*@D+☐	D	22	4	1.3	1	10	12	8	10	12
CWR29C-336*@D+☐	D	33	4	1.3	2	20	24	8	10	12
CWR29C-336*@E+☐	E	33	4	0.9	2	20	24	8	10	12
CWR29C-336*@F+☐	F	33	4	0.6	2	20	24	8	10	12
CWR29C-476*@E+☐	E	47	4	0.9	2	20	24	8	10	12
CWR29C-686*@E+☐	E	68	4	0.9	3	30	36	8	10	12
CWR29C-686*@G+☐	G	68	4	0.275	3	30	36	10	12	12
CWR29C-107*@F+☐	F	100	4	0.55	4	40	48	10	12	12
CWR29C-107*@H+☐	H	100	4	0.18	4	40	48	10	12	12
CWR29C-157*@G+☐	G	150	4	0.25	6	60	72	10	12	12
CWR29C-227*@H+☐	H	220	4	0.2	8	80	96	10	12	12
CWR29C-337*@H+☐	H	330	4	0.18	10	100	120	10	12	12
CWR29D-155*@A+☐	A	1.5	6	4	1	10	12	6	8	8
CWR29D-335*@A+☐	A	3.3	6	6	1	10	12	6	8	8
CWR29D-335*@B+☐	B	3.3	6	3.2	1	10	12	6	8	8
CWR29D-475*@A+☐	A	4.7	6	6	1	10	12	6	8	8
CWR29D-475*@C+☐	C	4.7	6	2.2	1	10	12	6	8	8
CWR29D-685*@B+☐	B	6.8	6	3.2	1	10	12	6	8	8
CWR29D-685*@D+☐	D	6.8	6	1.5	1	10	12	6	8	8
CWR29D-106*@B+☐	B	10	6	3.2	1	10	12	6	8	8
CWR29D-106*@E+☐	E	10	6	1	1	10	12	8	10	12
CWR29D-156*@B+☐	B	15	6	3.2	1	10	12	8	10	10
CWR29D-156*@D+☐	D	15	6	1.7	1	10	12	8	10	12
CWR29D-156*@E+☐	E	15	6	0.9	1	10	12	8	10	12
CWR29D-226*@D+☐	D	22	6	1.7	1	10	12	6	8	8
CWR29D-226*@E+☐	E	22	6	1	2	20	24	8	10	12
CWR29D-226*@F+☐	F	22	6	0.6	2	20	24	8	10	12
CWR29D-336*@E+☐	E	33	6	1	2	20	24	6	8	8
CWR29D-476*@F+☐	F	47	6	1	3	30	36	8	10	12
CWR29D-476*@G+☐	G	47	6	0.275	3	30	36	10	12	12
CWR29D-686*@F+☐	F	68	6	0.4	4	40	48	10	12	12
CWR29D-686*@G+☐	G	68	6	0.25	4	40	48	10	12	12

TAZ Series

CWR29 - MIL-PRF-55365/11

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
CWR29D-686*@H+☐	H	68	6	0.18	4	40	48	10	12	12
CWR29D-107*@G+☐	G	100	6	0.275	6	60	72	10	12	12
CWR29D-157*@G+☐	G	150	6	0.275	10	100	120	10	12	12
CWR29D-227*@H+☐	H	220	6	0.18	10	100	120	10	12	12
CWR29D-337*@H+☐	H	330	6	0.18	20	200	240	10	12	12
CWR29F-105*@A+☐	A	1	10	5	1	10	12	6	8	8
CWR29F-225*@A+☐	A	2.2	10	6	1	10	12	6	8	8
CWR29F-225*@B+☐	B	2.2	10	3.2	1	10	12	6	8	8
CWR29F-335*@A+☐	A	3.3	10	6	1	10	12	6	8	8
CWR29F-335*@C+☐	C	3.3	10	2.2	1	10	12	6	8	8
CWR29F-475*@B+☐	B	4.7	10	3.2	1	10	12	6	8	8
CWR29F-475*@C+☐	C	4.7	10	2.2	1	10	12	6	8	8
CWR29F-475*@D+☐	D	4.7	10	1.5	1	10	12	6	8	8
CWR29F-685*@B+☐	B	6.8	10	3.2	1	10	12	6	8	8
CWR29F-685*@C+☐	C	6.8	10	2.2	1	10	12	6	8	8
CWR29F-685*@D+☐	D	6.8	10	1.7	1	10	12	6	8	8
CWR29F-685*@E+☐	E	6.8	10	1	1	10	12	6	8	8
CWR29F-106*@B+☐	B	10	10	3.2	1	10	12	8	10	10
CWR29F-106*@C+☐	C	10	10	2.2	1	10	12	6	8	8
CWR29F-106*@D+☐	D	10	10	1.3	1	10	12	6	8	8
CWR29F-106*@E+☐	E	10	10	1	1	10	12	6	8	8
CWR29F-156*@D+☐	D	15	10	1.7	2	20	24	6	8	8
CWR29F-156*@E+☐	E	15	10	0.9	2	20	24	8	10	10
CWR29F-156*@F+☐	F	15	10	0.7	2	20	24	8	8	10
CWR29F-226*@E+☐	E	22	10	0.6	3	30	36	8	10	10
CWR29F-336*@F+☐	F	33	10	0.4	3	30	36	8	10	10
CWR29F-336*@G+☐	G	33	10	0.275	3	30	36	10	12	12
CWR29F-476*@F+☐	F	47	10	0.4	4	40	48	10	12	12
CWR29F-476*@G+☐	G	47	10	0.25	4	40	48	10	12	12
CWR29F-476*@H+☐	H	47	10	0.18	5	50	60	10	12	12
CWR29F-686*@G+☐	G	68	10	0.275	6	60	72	10	12	12
CWR29F-107*@G+☐	G	100	10	0.275	10	100	120	10	12	12
CWR29F-107*@H+☐	H	100	10	0.18	10	100	120	10	12	12
CWR29F-157*@H+☐	H	150	10	0.18	15	150	180	10	12	12
CWR29F-157*@X+☐	X	150	10	0.065	15	150	180	10	12	12
CWR29F-227*@H+☐	H	220	10	0.18	20	200	240	10	12	12
CWR29H^684*@A+☐	A	0.68	15	6	1	10	12	6	8	8
CWR29H^105*@A+☐	A	1	15	7.5	1	10	12	6	8	8
CWR29H^155*@A+☐	A	1.5	15	7.5	1	10	12	6	8	8
CWR29H^155*@B+☐	B	1.5	15	3.2	1	10	12	6	8	8
CWR29H^225*@A+☐	A	2.2	15	7.5	1	10	12	6	8	8
CWR29H^225*@C+☐	C	2.2	15	2.2	1	10	12	6	8	8
CWR29H^335*@B+☐	B	3.3	15	3.6	1	10	12	6	8	8
CWR29H^335*@D+☐	D	3.3	15	1.7	1	10	12	6	8	8

TAZ Series

CWR29 - MIL-PRF-55365/11

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
CWR29H-475*@B+☐	B	4.7	15	2	1	10	12	6	8	8
CWR29H-475*@C+☐	C	4.7	15	2.2	1	10	12	6	8	8
CWR29H-475*@D+☐	D	4.7	15	2	1	10	12	6	8	8
CWR29H-475*@E+☐	E	4.7	15	1.2	1	10	12	6	8	8
CWR29H-685*@D+☐	D	6.8	15	2	1	10	12	6	8	8
CWR29H-685*@E+☐	E	6.8	15	0.9	1	10	12	8	10	12
CWR29H-106*@D+☐	D	10	15	2	2	20	24	6	8	8
CWR29H-106*@E+☐	E	10	15	1.2	2	20	24	6	8	8
CWR29H-106*@F+☐	F	10	15	0.667	2	20	24	6	8	8
CWR29H-156*@E+☐	E	15	15	1.2	2	20	24	6	8	8
CWR29H-156*@F+☐	F	15	15	0.8	2	20	24	8	10	10
CWR29H-226*@F+☐	F	22	15	0.8	3	30	36	8	10	10
CWR29H-226*@G+☐	G	22	15	0.275	4	40	48	6	8	8
CWR29H-336*@F+☐	F	33	15	0.8	5	50	60	6	8	8
CWR29H-336*@G+☐	G	33	15	0.275	6	60	72	8	10	10
CWR29H-336*@H+☐	H	33	15	0.18	5	50	60	8	8	10
CWR29H-476*@G+☐	G	47	15	0.275	10	100	120	8	10	10
CWR29H-476*@H+☐	H	47	15	0.18	10	100	120	8	10	10
CWR29H-686*@G+☐	G	68	15	0.275	10	100	120	8	10	10
CWR29H-686*@H+☐	H	68	15	0.18	10	100	120	8	10	10
CWR29H-107*@H+☐	H	100	15	0.18	15	150	180	10	12	12
CWR29J-474*@A+☐	A	0.47	20	7.5	1	10	12	8	8	10
CWR29J-684*@A+☐	A	0.68	20	7.5	1	10	12	6	8	8
CWR29J-684*@B+☐	B	0.68	20	5.6	1	10	12	6	8	8
CWR29J-105*@A+☐	A	1	20	7.5	1	10	12	6	8	8
CWR29J-105*@B+☐	B	1	20	4.8	1	10	12	6	8	8
CWR29J-155*@B+☐	B	1.5	20	3.6	1	10	12	6	8	8
CWR29J-155*@C+☐	C	1.5	20	2.4	1	10	12	6	8	8
CWR29J-225*@B+☐	B	2.2	20	3.6	1	10	12	6	8	8
CWR29J-225*@D+☐	D	2.2	20	1.7	1	10	12	6	8	8
CWR29J-335*@D+☐	D	3.3	20	2	1	10	12	6	8	8
CWR29J-335*@E+☐	E	3.3	20	1.2	1	10	12	6	8	8
CWR29J-475*@E+☐	E	4.7	20	1.7	1	10	12	6	8	8
CWR29J-685*@E+☐	E	6.8	20	1.5	2	20	24	6	8	8
CWR29J-685*@F+☐	F	6.8	20	0.7	2	20	24	6	8	8
CWR29J-106*@E+☐	E	10	20	1.5	2	20	24	6	8	8
CWR29J-106*@F+☐	F	10	20	0.8	2	20	24	6	8	8
CWR29J-156*@F+☐	F	15	20	0.8	3	30	36	6	8	8
CWR29J-156*@G+☐	G	15	20	0.275	3	30	36	6	8	8
CWR29J-226*@G+☐	G	22	20	0.625	4	40	48	6	8	8
CWR29J-226*@H+☐	H	22	20	0.18	4	40	48	6	8	8
CWR29J-336*@H+☐	H	33	20	0.18	6	60	72	8	10	10
CWR29J-476*@H+☐	H	47	20	0.18	10	100	120	8	10	10
CWR29J-476*@X+☐	X	47	20	0.11	10	100	120	8	10	10

TAZ Series

CWR29 - MIL-PRF-55365/11

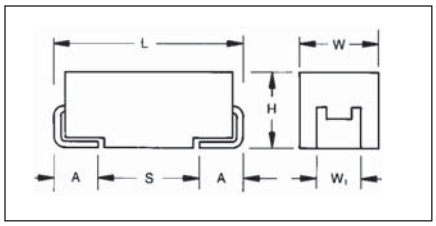
Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
CWR29K-334*@A+☐	A	0.33	25	7.5	1	10	12	6	8	8
CWR29K-474*@A+☐	A	0.47	25	7.5	1	10	12	6	8	8
CWR29K-684*@B+☐	B	0.68	25	4	1	10	12	6	8	8
CWR29K-105*@B+☐	B	1	25	4	1	10	12	6	8	8
CWR29K-105*@C+☐	C	1	25	2.6	1	10	12	6	8	8
CWR29K-155*@D+☐	D	1.5	25	1.7	1	10	12	6	8	8
CWR29K-225*@D+☐	D	2.2	25	2	1	10	12	6	8	8
CWR29K-225*@E+☐	E	2.2	25	1	1	10	12	6	8	8
CWR29K-335*@E+☐	E	3.3	25	1.2	1	10	12	6	8	8
CWR29K-475*@F+☐	F	4.7	25	0.7	2	20	24	6	8	8
CWR29K-685*@F+☐	F	6.8	25	0.8	2	20	24	6	8	8
CWR29K-685*@G+☐	G	6.8	25	0.3	2	20	24	6	8	8
CWR29K-106*@G+☐	G	10	25	0.35	3	30	36	6	8	8
CWR29K-156*@G+☐	G	15	25	0.35	4	40	48	6	8	8
CWR29K-156*@H+☐	H	15	25	0.2	4	40	48	6	8	8
CWR29K-226*@G+☐	G	22	25	0.35	6	60	72	6	8	8
CWR29K-226*@H+☐	H	22	25	0.18	6	60	72	6	8	8
CWR29K-226*@X+☐	X	22	25	0.16	6	60	72	6	8	8
CWR29K-336*@H+☐	H	33	25	0.18	10	100	120	6	8	8
CWR29K-336*@X+☐	X	33	25	0.13	10	100	120	8	10	10
CWR29M-224*@A+☐	A	0.22	35	12	1	10	12	6	8	8
CWR29M-334*@A+☐	A	0.33	35	12	1	10	12	6	8	8
CWR29M-474*@B+☐	B	0.47	35	6.8	1	10	12	6	8	8
CWR29M-684*@C+☐	C	0.68	35	4	1	10	12	6	8	8
CWR29M-105*@D+☐	D	1	35	2.2	1	10	12	6	8	8
CWR29M-155*@E+☐	E	1.5	35	1.3	1	10	12	6	8	8
CWR29M-335*@F+☐	F	3.3	35	0.7	1	10	12	6	8	8
CWR29M-475*@G+☐	G	4.7	35	0.375	2	20	24	6	8	8
CWR29M-685*@G+☐	G	6.8	35	0.375	3	30	36	6	8	8
CWR29M-685*@H+☐	H	6.8	35	0.5	3	30	36	6	8	8
CWR29M-106*@H+☐	H	10	35	0.5	4	40	48	8	10	10
CWR29M-156*@X+☐	X	15	35	0.19	6	60	72	6	8	8
CWR29N-104*@A+☐	A	0.1	50	12	1	10	12	6	8	8
CWR29N-154*@A+☐	A	0.15	50	12	1	10	12	6	8	8
CWR29N-224*@B+☐	B	0.22	50	6.8	1	10	12	6	8	8
CWR29N-334*@B+☐	B	0.33	50	4.8	1	10	12	6	8	8
CWR29N-474*@C+☐	C	0.47	50	3.2	1	10	12	6	8	8
CWR29N-684*@D+☐	D	0.68	50	2.3	1	10	12	6	8	8
CWR29N-105*@E+☐	E	1	50	1.7	1	10	12	6	8	8
CWR29N-155*@F+☐	F	1.5	50	1.1	1	10	12	6	8	8
CWR29N-225*@F+☐	F	2.2	50	0.7	2	20	24	6	8	8
CWR29N-335*@G+☐	G	3.3	50	0.5	2	20	24	6	8	8
CWR29N-475*@H+☐	H	4.7	50	0.5	3	30	36	6	8	8

TAZ Series

COTS-Plus

The TAZ part has fully molded, compliant leadframe construction designed for use in applications utilizing solder (Reflow, Wave or Vapor Phase), conductive adhesive or thermal compression bonding techniques. Each chip is marked with polarity, capacitance code and rate voltage.

The series comprises ten case sizes (see dimensional chart below) with the maximum size V case giving capacitance values to 470 µF. The C case, with its non-standard aspect ratio, is retained as a QPL (Qualified Product List) only special.



MARKING

(White marking on black body)

Polarity Stripe (+)

Capacitance Code
Rated Voltage

CASE DIMENSIONS:

millimeters (inches)

Case Code	Length (L) ±0.38 (0.015)	Width (W) ±0.38 (0.015)	Height (H) ±0.38 (0.015)	Term. Width (W_1)	Term. Length (A) ±0.13 (0.005)	S min
A	2.54 (0.100)	1.27 (0.050)	1.27 (0.050)	1.27±0.13 (0.050±0.005)	0.76 (0.030)	1.80 (0.071)
B	3.81 (0.150)	1.27 (0.050)	1.27 (0.050)	1.27±0.13 (0.050±0.005)	0.76 (0.030)	1.65 (0.065)
C	5.08 (0.200)	1.27 (0.050)	1.27 (0.050)	1.27±0.13 (0.050±0.005)	0.76 (0.030)	2.92 (0.115)
D	3.81 (0.150)	2.54 (0.100)	1.27 (0.050)	2.41+0.13/-0.25 (0.095+0.005/-0.010)	0.76 (0.030)	1.65 (0.065)
E	5.08 (0.200)	2.54 (0.100)	1.27 (0.050)	2.41+0.13/-0.25 (0.095+0.005/-0.010)	0.76 (0.030)	2.92 (0.115)
F	5.59 (0.220)	3.43 (0.135)	1.78 (0.070)	3.30±0.13 (0.130±0.005)	0.76 (0.030)	3.43 (0.135)
G	6.73 (0.265)	2.79 (0.110)	2.79 (0.110)	2.67±0.13 (0.105±0.005)	1.27 (0.050)	3.56 (0.140)
H	7.24 (0.285)	3.81 (0.150)	2.79 (0.110)	3.68+0.13/-0.51 (0.145+0.005/-0.020)	1.27 (0.050)	0.70 (0.028)
X	6.93 Max (0.273)	5.41 Max (0.213)	2.74 Max (0.108)	3.05±0.13 (0.120±0.005)	1.19 (0.047)	N/A

HOW TO ORDER

TAZ	H	227	*	006	C	□	#@	0^	++
Type	**Case Size**	**Capacitance Code** pF code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow)	**Capacitance Tolerance** M = ±20% K = ±10% J = ±5%	**Voltage Code** 004 = 4Vdc 006 = 6Vdc 010 = 10Vdc 015 = 15Vdc 020 = 20Vdc 025 = 25Vdc 035 = 35Vdc 050 = 50Vdc	**Standard or Low ESR Range** C = Std ESR L = Low ESR	**Packaging** B = Bulk R = 7" T&R S = 13" T&R	**Qualification/ Reliability** **# = Inspection Level** S = Std. Conformance L = Group A **@ = Failure Rate Level** Weibull: B = 0.1%/1000 hrs. (90% C = 0.01%/ 1000 hrs. conf.) Comm: Z = Non ER	**Termination Finish** 09 = Gold Plated 08 = Hot Solder Dipped 00 = Solder Fused	**Surge Test Option** 00 = None 23 = 10 cycles, +25°C 24 = 10 cycles, -55°C & +85°C 45 = 10 cycles, -55°C & +85°C before Weibull

TECHNICAL SPECIFICATIONS

Technical Data:	Unless otherwise specified, all technical data relate to an ambient temperature of 25°C								
Capacitance Range:	0.1 µF to 470 µF								
Capacitance Tolerance:	±5%; ±10%; ±20%								
Rated Voltage: (V_R)	≤85°C:	4	6	10	15	20	25	35	50
Category Voltage: (V_C)	125°C:	2.7	4	7	10	13	17	23	33
Surge Voltage: (V_S)	≤85°C:	5.2	8	13	20	26	32	46	65
	125°C:	3.4	5	8	12	16	20	28	40
Temperature Range:	-55°C to +125°C								

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

Capacitance		Rated voltage DC (V_R) at 85°C							
µF	Code	4V (C)	6V (D)	10V (F)	15V (H)	20V (J)	25V (K)	35V (M)	50V (N)
0.10	104								A
0.15	154								A
0.22	224							A	B
0.33	334						A	A	B
0.47	474					A	A	B	C
0.68	684				A	A/B	B	C	D
1.0	105			A	A	A/B	B/C	D	E
1.5	155		A		A/B	B/C	D	E	F
2.2	225	A		A/B	A/C	B/D	D/E		F
3.3	335	A	A/B	A/C	B/D	D/E	E	F	G
4.7	475	A/B	A/C	B/C/D	B/C/D/E	E	F	G	H
6.8	685	A/C	B/D	B/C/D/E	D/E	E/F	F/G	G/H	
10	106	B/D	B/E	B/C/D/E	D/E/F	E/F	G	H	
15	156	B/E	B/D/E	D/E/F	E/F	F/G	G/H	X	
22	226	B/D	D/E/F	E	F/G	G/H	G/H/X		
33	336	D/E/F	E	F/G	F/G/H	H	H/X		
47	476	E	F/G	F/G/H	G/H	H/X			
68	686	E/G	F/G/H	G	G/H				
100	107	F/H	G	G/H	H				
150	157	G	G	H/X					
220	227	G	H	H					
330	337	H	H						
470	447	H							

NOTE: TAZ Standard Range ratings are also available in CWR09 Military parts.

TAZ Series

COTS-Plus

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
TAZA225*004C□#@0^++	A	2.2	4	8	1	10	12	6	8	8
TAZA225*004L□#@0^++	A	2.2	4	4	1	10	12	6	8	8
TAZA335*004C□#@0^++	A	3.3	4	12	1	10	12	6	8	8
TAZA335*004L□#@0^++	A	3.3	4	6	1	10	12	6	8	8
TAZA475*004C□#@0^++	A	4.7	4	12	1	10	12	6	8	8
TAZA475*004L□#@0^++	A	4.7	4	6	1	10	12	6	8	8
TAZB475*004C□#@0^++	B	4.7	4	8	1	10	12	6	8	8
TAZB475*004L□#@0^++	B	4.7	4	3.2	1	10	12	6	8	8
TAZA685*004C□#@0^++	A	6.8	4	12	1	10	12	6	8	8
TAZA685*004L□#@0^++	A	6.8	4	6	1	10	12	6	8	8
TAZC685*004C□#@0^++	C	6.8	4	5.5	1	10	12	6	8	8
TAZC685*004C□#@0^++	C	6.8	4	5.5	1	10	12	6	8	8
TAZC685*004L□#@0^++	C	6.8	4	2.2	1	10	12	6	8	8
TAZB106*004C□#@0^++	B	10	4	8	1	10	12	8	10	10
TAZB106*004L□#@0^++	B	10	4	3.2	1	10	12	8	10	10
TAZD106*004C□#@0^++	D	10	4	4	1	10	12	8	8	10
TAZD106*004L□#@0^++	D	10	4	1.3	1	10	12	8	8	10
TAZB156*004C□#@0^++	B	15	4	8	1	10	12	8	10	10
TAZB156*004L□#@0^++	B	15	4	3.2	1	10	12	8	10	10
TAZE156*004C□#@0^++	E	15	4	3.5	1	10	12	8	10	12
TAZE156*004L□#@0^++	E	15	4	1	1	10	12	8	10	12
TAZB226*004C□#@0^++	B	22	4	8	1	10	12	8	10	10
TAZB226*004L□#@0^++	B	22	4	3.2	1	10	12	8	10	10
TAZD226*004C□#@0^++	D	22	4	4	1	10	12	8	10	12
TAZD226*004L□#@0^++	D	22	4	1.3	1	10	12	8	10	12
TAZD336*004C□#@0^++	D	33	4	4	2	20	24	8	10	12
TAZD336*004L□#@0^++	D	33	4	1.3	2	20	24	8	10	12
TAZE336*004C□#@0^++	E	33	4	3	2	20	24	8	10	12
TAZE336*004L□#@0^++	E	33	4	0.9	2	20	24	8	10	12
TAZF336*004C□#@0^++	F	33	4	2.2	2	20	24	8	10	12
TAZF336*004L□#@0^++	F	33	4	0.6	2	20	24	8	10	12
TAZE476*004C□#@0^++	E	47	4	3	2	20	24	8	10	12
TAZE476*004L□#@0^++	E	47	4	0.9	2	20	24	8	10	12
TAZE686*004C□#@0^++	E	68	4	3	3	30	36	8	10	12
TAZE686*004L□#@0^++	E	68	4	0.9	3	30	36	8	10	12
TAZG686*004C□#@0^++	G	68	4	1.1	3	30	36	10	12	12
TAZG686*004L□#@0^++	G	68	4	0.275	3	30	36	10	12	12
TAZF107*004C□#@0^++	F	100	4	2	4	40	48	10	12	12
TAZF107*004L□#@0^++	F	100	4	0.55	4	40	48	10	12	12
TAZH107*004C□#@0^++	H	100	4	0.9	4	40	48	10	12	12
TAZH107*004L□#@0^++	H	100	4	0.18	4	40	48	10	12	12
TAZG157*004C□#@0^++	G	150	4	1	6	60	72	10	12	12
TAZG157*004L□#@0^++	G	150	4	0.25	6	60	72	10	12	12
TAZH227*004C□#@0^++	H	220	4	1	8	80	96	10	12	12
TAZH227*004L□#@0^++	H	220	4	0.2	8	80	96	10	12	12

Following the voltage code, C designates Standard, L designates Low ESR Ratings

TAZ Series

COTS-Plus

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
TAZH337*004C□#@0^++	H	330	4	0.9	10	100	120	10	12	12
TAZH337*004L□#@0^++	H	330	4	0.18	10	100	120	10	12	12
TAZH477*004L□#@0^++	H	470	4	0.9	19	190	228	10	12	12
TAZA155*006C□#@0^++	A	1.5	6	8	1	10	12	6	8	8
TAZA155*006L□#@0^++	A	1.5	6	4	1	10	12	6	8	8
TAZA335*006C□#@0^++	A	3.3	6	12	1	10	12	6	8	8
TAZA335*006L□#@0^++	A	3.3	6	6	1	10	12	6	8	8
TAZB335*006C□#@0^++	B	3.3	6	8	1	10	12	6	8	8
TAZB335*006L□#@0^++	B	3.3	6	3.2	1	10	12	6	8	8
TAZA475*006C□#@0^++	A	4.7	6	12	1	10	12	6	8	8
TAZA475*006L□#@0^++	A	4.7	6	6	1	10	12	6	8	8
TAZC475*006C□#@0^++	C	4.7	6	5.5	1	10	12	6	8	8
TAZC475*006C□#@0^++	C	4.7	6	5.5	1	10	12	6	8	8
TAZC475*006L□#@0^++	C	4.7	6	2.2	1	10	12	6	8	8
TAZB685*006C□#@0^++	B	6.8	6	8	1	10	12	6	8	8
TAZB685*006L□#@0^++	B	6.8	6	3.2	1	10	12	6	8	8
TAZD685*006C□#@0^++	D	6.8	6	4.5	1	10	12	6	8	8
TAZD685*006L□#@0^++	D	6.8	6	1.5	1	10	12	6	8	8
TAZB106*006C□#@0^++	B	10	6	8	1	10	12	6	8	8
TAZB106*006L□#@0^++	B	10	6	3.2	1	10	12	6	8	8
TAZE106*006C□#@0^++	E	10	6	3.5	1	10	12	8	10	12
TAZE106*006L□#@0^++	E	10	6	1	1	10	12	8	10	12
TAZB156*006C□#@0^++	B	15	6	8	1	10	12	8	10	10
TAZB156*006L□#@0^++	B	15	6	3.2	1	10	12	8	10	10
TAZD156*006C□#@0^++	D	15	6	5	1	10	12	8	10	12
TAZD156*006L□#@0^++	D	15	6	1.7	1	10	12	8	10	12
TAZE156*006C□#@0^++	E	15	6	3	1	10	12	8	10	12
TAZE156*006L□#@0^++	E	15	6	0.9	1	10	12	8	10	12
TAZD226*006C□#@0^++	D	22	6	5	1	10	12	6	8	8
TAZD226*006L□#@0^++	D	22	6	1.7	1	10	12	6	8	8
TAZE226*006C□#@0^++	E	22	6	3.5	2	20	24	8	10	12
TAZE226*006L□#@0^++	E	22	6	1	2	20	24	8	10	12
TAZF226*006C□#@0^++	F	22	6	2.2	2	20	24	8	10	12
TAZF226*006L□#@0^++	F	22	6	0.6	2	20	24	8	10	12
TAZE336*006C□#@0^++	E	33	6	3.5	2	20	24	6	8	8
TAZE336*006L□#@0^++	E	33	6	1	2	20	24	6	8	8
TAZF476*006C□#@0^++	F	47	6	3.5	3	30	36	8	10	12
TAZF476*006L□#@0^++	F	47	6	1	3	30	36	8	10	12
TAZG476*006C□#@0^++	G	47	6	1.1	3	30	36	10	12	12
TAZG476*006L□#@0^++	G	47	6	0.275	3	30	36	10	12	12
TAZF686*006C□#@0^++	F	68	6	1.5	4	40	48	10	12	12
TAZF686*006L□#@0^++	F	68	6	0.4	4	40	48	10	12	12
TAZG686*006C□#@0^++	G	68	6	1	4	40	48	10	12	12
TAZG686*006L□#@0^++	G	68	6	0.25	4	40	48	10	12	12
TAZH686*006C□#@0^++	H	68	6	0.9	4	40	48	10	12	12

Following the voltage code, C designates Standard, L designates Low ESR Ratings

TAZ Series

COTS-Plus

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
TAZH686*006L□#@0^++	H	68	6	0.18	4	40	48	10	12	12
TAZG107*006C□#@0^++	G	100	6	1.1	6	60	72	10	12	12
TAZG107*006L□#@0^++	G	100	6	0.275	6	60	72	10	12	12
TAZG157*006C□#@0^++	G	150	6	1.1	10	100	120	10	12	12
TAZG157*006L□#@0^++	G	150	6	0.275	10	100	120	10	12	12
TAZH227*006C□#@0^++	H	220	6	0.9	10	100	120	10	12	12
TAZH227*006L□#@0^++	H	220	6	0.18	10	100	120	10	12	12
TAZH337*006C□#@0^++	H	330	6	0.9	20	200	240	10	12	12
TAZH337*006L□#@0^++	H	330	6	0.18	20	200	240	10	12	12
TAZA105*010C□#@0^++	A	1	10	10	1	10	12	6	8	8
TAZA105*010L□#@0^++	A	1	10	5	1	10	12	6	8	8
TAZA225*010C□#@0^++	A	2.2	10	12	1	10	12	6	8	8
TAZA225*010L□#@0^++	A	2.2	10	6	1	10	12	6	8	8
TAZB225*010C□#@0^++	B	2.2	10	8	1	10	12	6	8	8
TAZB225*010L□#@0^++	B	2.2	10	3.2	1	10	12	6	8	8
TAZA335*010C□#@0^++	A	3.3	10	12	1	10	12	6	8	8
TAZA335*010L□#@0^++	A	3.3	10	6	1	10	12	6	8	8
TAZC335*010C□#@0^++	C	3.3	10	5.5	1	10	12	6	8	8
TAZC335*010C□#@0^++	C	3.3	10	5.5	1	10	12	6	8	8
TAZC335*010L□#@0^++	C	3.3	10	2.2	1	10	12	6	8	8
TAZB475*010C□#@0^++	B	4.7	10	8	1	10	12	6	8	8
TAZB475*010L□#@0^++	B	4.7	10	3.2	1	10	12	6	8	8
TAZC475*010C□#@0^++	C	4.7	10	5.5	1	10	12	6	8	8
TAZC475*010L□#@0^++	C	4.7	10	2.2	1	10	12	6	8	8
TAZD475*010C□#@0^++	D	4.7	10	4.5	1	10	12	6	8	8
TAZD475*010L□#@0^++	D	4.7	10	1.5	1	10	12	6	8	8
TAZB685*010C□#@0^++	B	6.8	10	8	1	10	12	6	8	8
TAZB685*010L□#@0^++	B	6.8	10	3.2	1	10	12	6	8	8
TAZC685*010C□#@0^++	C	6.8	10	5.5	1	10	12	6	8	8
TAZC685*010L□#@0^++	C	6.8	10	2.2	1	10	12	6	8	8
TAZD685*010C□#@0^++	D	6.8	10	5	1	10	12	6	8	8
TAZD685*010L□#@0^++	D	6.8	10	1.7	1	10	12	6	8	8
TAZE685*010C□#@0^++	E	6.8	10	3.5	1	10	12	6	8	8
TAZE685*010L□#@0^++	E	6.8	10	1	1	10	12	6	8	8
TAZB106*010C□#@0^++	B	10	10	8	1	10	12	8	10	10
TAZB106*010L□#@0^++	B	10	10	3.2	1	10	12	8	10	10
TAZC106*010C□#@0^++	C	10	10	5.5	1	10	12	6	8	8
TAZC106*010L□#@0^++	C	10	10	2.2	1	10	12	6	8	8
TAZD106*010C□#@0^++	D	10	10	4	1	10	12	6	8	8
TAZD106*010L□#@0^++	D	10	10	1.3	1	10	12	6	8	8
TAZE106*010C□#@0^++	E	10	10	3.5	1	10	12	6	8	8
TAZE106*010L□#@0^++	E	10	10	1	1	10	12	6	8	8
TAZD156*010C□#@0^++	D	15	10	5	2	20	24	6	8	8
TAZD156*010L□#@0^++	D	15	10	1.7	2	20	24	6	8	8
TAZE156*010C□#@0^++	E	15	10	3	2	20	24	8	10	10

Following the voltage code, C designates Standard, L designates Low ESR Ratings

TAZ Series

COTS-Plus

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
TAZE156*010L□#@0^++	E	15	10	0.9	2	20	24	8	10	10
TAZF156*010C□#@0^++	F	15	10	2.5	2	20	24	8	8	10
TAZF156*010L□#@0^++	F	15	10	0.7	2	20	24	8	8	10
TAZE226*010C□#@0^++	E	22	10	2	3	30	36	8	10	10
TAZE226*010L□#@0^++	E	22	10	0.6	3	30	36	8	10	10
TAZF336*010C□#@0^++	F	33	10	1.5	3	30	36	8	10	10
TAZF336*010L□#@0^++	F	33	10	0.4	3	30	36	8	10	10
TAZG336*010C□#@0^++	G	33	10	1.1	3	30	36	10	12	12
TAZG336*010L□#@0^++	G	33	10	0.275	3	30	36	10	12	12
TAZF476*010C□#@0^++	F	47	10	1.5	4	40	48	10	12	12
TAZF476*010L□#@0^++	F	47	10	0.4	4	40	48	10	12	12
TAZG476*010C□#@0^++	G	47	10	1	4	40	48	10	12	12
TAZG476*010L□#@0^++	G	47	10	0.25	4	40	48	10	12	12
TAZH476*010C□#@0^++	H	47	10	0.9	5	50	60	10	12	12
TAZH476*010L□#@0^++	H	47	10	0.18	5	50	60	10	12	12
TAZG686*010C□#@0^++	G	68	10	1.1	6	60	72	10	12	12
TAZG686*010L□#@0^++	G	68	10	0.275	6	60	72	10	12	12
TAZG107*010C□#@0^++	G	100	10	1.1	10	100	120	10	12	12
TAZG107*010L□#@0^++	G	100	10	0.275	10	100	120	10	12	12
TAZH107*010C□#@0^++	H	100	10	0.9	10	100	120	10	12	12
TAZH107*010L□#@0^++	H	100	10	0.18	10	100	120	10	12	12
TAZH157*010C□#@0^++	H	150	10	0.9	15	150	180	10	12	12
TAZH157*010L□#@0^++	H	150	10	0.18	15	150	180	10	12	12
TAZX157*010C□#@0^++	X	150	10	0.9	15	150	180	10	12	12
TAZX157*010L□#@0^++	X	150	10	0.065	15	150	180	10	12	12
TAZH227*010C□#@0^++	H	220	10	0.9	20	200	240	10	12	12
TAZH227*010L□#@0^++	H	220	10	0.18	20	200	240	10	12	12
TAZA684*015C□#@0^++	A	0.68	15	12	1	10	12	6	8	8
TAZA684*015L□#@0^++	A	0.68	15	6	1	10	12	6	8	8
TAZA105*015L□#@0^++	A	1	15	7.5	1	10	12	6	8	8
TAZA155*015C□#@0^++	A	1.5	15	15	1	10	12	6	8	8
TAZA155*015L□#@0^++	A	1.5	15	7.5	1	10	12	6	8	8
TAZB155*015C□#@0^++	B	1.5	15	8	1	10	12	6	8	8
TAZB155*015L□#@0^++	B	1.5	15	3.2	1	10	12	6	8	8
TAZA225*015C□#@0^++	A	2.2	15	15	1	10	12	6	8	8
TAZA225*015L□#@0^++	A	2.2	15	7.5	1	10	12	6	8	8
TAZC225*015C□#@0^++	C	2.2	15	5.5	1	10	12	6	8	8
TAZC225*015C□#@0^++	C	2.2	15	5.5	1	10	12	6	8	8
TAZC225*015L□#@0^++	C	2.2	15	2.2	1	10	12	6	8	8
TAZB335*015C□#@0^++	B	3.3	15	9	1	10	12	6	8	8
TAZB335*015L□#@0^++	B	3.3	15	3.6	1	10	12	6	8	8
TAZD335*015C□#@0^++	D	3.3	15	5	1	10	12	6	8	8
TAZD335*015L□#@0^++	D	3.3	15	1.7	1	10	12	6	8	8
TAZB475*015C□#@0^++	B	4.7	15	5	1	10	12	6	8	8
TAZB475*015L□#@0^++	B	4.7	15	2	1	10	12	6	8	8

Following the voltage code, C designates Standard, L designates Low ESR Ratings

TAZ Series

COTS-Plus

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
TAZC475*015C□#@0^++	C	4.7	15	5.5	1	10	12	6	8	8
TAZC475*015L□#@0^++	C	4.7	15	2.2	1	10	12	6	8	8
TAZD475*015C□#@0^++	D	4.7	15	6	1	10	12	6	8	8
TAZD475*015L□#@0^++	D	4.7	15	2	1	10	12	6	8	8
TAZE475*015C□#@0^++	E	4.7	15	4	1	10	12	6	8	8
TAZE475*015L□#@0^++	E	4.7	15	1.2	1	10	12	6	8	8
TAZD685*015C□#@0^++	D	6.8	15	6	1	10	12	6	8	8
TAZD685*015L□#@0^++	D	6.8	15	2	1	10	12	6	8	8
TAZE685*015C□#@0^++	E	6.8	15	3	1	10	12	8	10	12
TAZE685*015L□#@0^++	E	6.8	15	0.9	1	10	12	8	10	12
TAZD106*015C□#@0^++	D	10	15	6	2	20	24	6	8	8
TAZD106*015L□#@0^++	D	10	15	2	2	20	24	6	8	8
TAZE106*015C□#@0^++	E	10	15	4	2	20	24	6	8	8
TAZE106*015L□#@0^++	E	10	15	1.2	2	20	24	6	8	8
TAZF106*015C□#@0^++	F	10	15	2.5	2	20	24	6	8	8
TAZF106*015L□#@0^++	F	10	15	0.667	2	20	24	6	8	8
TAZE156*015C□#@0^++	E	15	15	4	2	20	24	6	8	8
TAZE156*015L□#@0^++	E	15	15	1.2	2	20	24	6	8	8
TAZF156*015C□#@0^++	F	15	15	3	2	20	24	8	10	10
TAZF156*015L□#@0^++	F	15	15	0.8	2	20	24	8	10	10
TAZF226*015C□#@0^++	F	22	15	3	3	30	36	8	10	10
TAZF226*015L□#@0^++	F	22	15	0.8	3	30	36	8	10	10
TAZG226*015C□#@0^++	G	22	15	1.1	4	40	48	6	8	8
TAZG226*015L□#@0^++	G	22	15	0.275	4	40	48	6	8	8
TAZF336*015C□#@0^++	F	33	15	3	5	50	60	6	8	8
TAZF336*015L□#@0^++	F	33	15	0.8	5	50	60	6	8	8
TAZG336*015C□#@0^++	G	33	15	1.1	6	60	72	8	10	10
TAZG336*015L□#@0^++	G	33	15	0.275	6	60	72	8	10	10
TAZH336*015C□#@0^++	H	33	15	0.9	5	50	60	8	8	10
TAZH336*015L□#@0^++	H	33	15	0.18	5	50	60	8	8	10
TAZG476*015C□#@0^++	G	47	15	1.1	10	100	120	8	10	10
TAZG476*015L□#@0^++	G	47	15	0.275	10	100	120	8	10	10
TAZH476*015C□#@0^++	H	47	15	0.9	10	100	120	8	10	10
TAZH476*015L□#@0^++	H	47	15	0.18	10	100	120	8	10	10
TAZG686*015C□#@0^++	G	68	15	1.1	10	100	120	8	10	10
TAZG686*015L□#@0^++	G	68	15	0.275	10	100	120	8	10	10
TAZH686*015C□#@0^++	H	68	15	0.9	10	100	120	8	10	10
TAZH686*015L□#@0^++	H	68	15	0.18	10	100	120	8	10	10
TAZH107*015C□#@0^++	H	100	15	0.9	15	150	180	10	12	12
TAZH107*015L□#@0^++	H	100	15	0.18	15	150	180	10	12	12
TAZA474*020C□#@0^++	A	0.47	20	14	1	10	12	8	10	10
TAZA474*020L□#@0^++	A	0.47	20	7.5	1	10	12	8	8	10
TAZA684*020C□#@0^++	A	0.68	20	15	1	10	12	6	8	8
TAZA684*020L□#@0^++	A	0.68	20	7.5	1	10	12	6	8	8
TAZB684*020C□#@0^++	B	0.68	20	10	1	10	12	6	8	8

Following the voltage code, C designates Standard, L designates Low ESR Ratings

TAZ Series

COTS-Plus

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
TAZB684*020L□#@0^++	B	0.68	20	5.6	1	10	12	6	8	8
TAZA105*020C□#@0^++	A	1	20	15	1	10	12	6	8	8
TAZA105*020L□#@0^++	A	1	20	7.5	1	10	12	6	8	8
TAZB105*020C□#@0^++	B	1	20	12	1	10	12	6	8	8
TAZB105*020L□#@0^++	B	1	20	4.8	1	10	12	6	8	8
TAZB155*020C□#@0^++	B	1.5	20	9	1	10	12	6	8	8
TAZB155*020L□#@0^++	B	1.5	20	3.6	1	10	12	6	8	8
TAZC155*020C□#@0^++	C	1.5	20	6	1	10	12	6	8	8
TAZC155*020C□#@0^++	C	1.5	20	6	1	10	12	6	8	8
TAZC155*020L□#@0^++	C	1.5	20	2.4	1	10	12	6	8	8
TAZB225*020C□#@0^++	B	2.2	20	9	1	10	12	6	8	8
TAZB225*020L□#@0^++	B	2.2	20	3.6	1	10	12	6	8	8
TAZD225*020C□#@0^++	D	2.2	20	5	1	10	12	6	8	8
TAZD225*020L□#@0^++	D	2.2	20	1.7	1	10	12	6	8	8
TAZD335*020C□#@0^++	D	3.3	20	6	1	10	12	6	8	8
TAZD335*020L□#@0^++	D	3.3	20	2	1	10	12	6	8	8
TAZE335*020C□#@0^++	E	3.3	20	4	1	10	12	6	8	8
TAZE335*020L□#@0^++	E	3.3	20	1.2	1	10	12	6	8	8
TAZE475*020C□#@0^++	E	4.7	20	6	1	10	12	6	8	8
TAZE475*020L□#@0^++	E	4.7	20	1.7	1	10	12	6	8	8
TAZE685*020C□#@0^++	E	6.8	20	5	2	20	24	6	8	8
TAZE685*020L□#@0^++	E	6.8	20	1.5	2	20	24	6	8	8
TAZF685*020C□#@0^++	F	6.8	20	2.4	2	20	24	6	8	8
TAZF685*020L□#@0^++	F	6.8	20	0.7	2	20	24	6	8	8
TAZE106*020C□#@0^++	E	10	20	5	2	20	24	6	8	8
TAZE106*020L□#@0^++	E	10	20	1.5	2	20	24	6	8	8
TAZF106*020C□#@0^++	F	10	20	3	2	20	24	6	8	8
TAZF106*020L□#@0^++	F	10	20	0.8	2	20	24	6	8	8
TAZF156*020C□#@0^++	F	15	20	3	3	30	36	6	8	8
TAZF156*020L□#@0^++	F	15	20	0.8	3	30	36	6	8	8
TAZG156*020C□#@0^++	G	15	20	1.1	3	30	36	6	8	8
TAZG156*020L□#@0^++	G	15	20	0.275	3	30	36	6	8	8
TAZG226*020C□#@0^++	G	22	20	2.5	4	40	48	6	8	8
TAZG226*020L□#@0^++	G	22	20	0.625	4	40	48	6	8	8
TAZH226*020C□#@0^++	H	22	20	0.9	4	40	48	6	8	8
TAZH226*020L□#@0^++	H	22	20	0.18	4	40	48	6	8	8
TAZH336*020C□#@0^++	H	33	20	0.9	6	60	72	8	10	10
TAZH336*020L□#@0^++	H	33	20	0.18	6	60	72	8	10	10
TAZH476*020C□#@0^++	H	47	20	0.9	10	100	120	8	10	10
TAZH476*020L□#@0^++	H	47	20	0.18	10	100	120	8	10	10
TAZX476*020C□#@0^++	X	47	20	0.9	10	100	120	8	10	10
TAZX476*020L□#@0^++	X	47	20	0.11	10	100	120	8	10	10
TAZA334*025C□#@0^++	A	0.33	25	15	1	10	12	6	8	8
TAZA334*025L□#@0^++	A	0.33	25	7.5	1	10	12	6	8	8
TAZA474*025C□#@0^++	A	0.47	25	15	1	10	12	6	8	8

Following the voltage code, C designates Standard, L designates Low ESR Ratings

TAZ Series

COTS-Plus

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
TAZA474*025L□#@0^++	A	0.47	25	7.5	1	10	12	6	8	8
TAZB684*025C□#@0^++	B	0.68	25	7.5	1	10	12	6	8	8
TAZB684*025L□#@0^++	B	0.68	25	4	1	10	12	6	8	8
TAZB105*025C□#@0^++	B	1	25	10	1	10	12	6	8	8
TAZB105*025L□#@0^++	B	1	25	4	1	10	12	6	8	8
TAZC105*025C□#@0^++	C	1	25	6.5	1	10	12	6	8	8
TAZC105*025C□#@0^++	C	1	25	6.5	1	10	12	6	8	8
TAZC105*025L□#@0^++	C	1	25	2.6	1	10	12	6	8	8
TAZD155*025C□#@0^++	D	1.5	25	6.5	1	10	12	6	8	8
TAZD155*025L□#@0^++	D	1.5	25	1.7	1	10	12	6	8	8
TAZD225*025C□#@0^++	D	2.2	25	6	1	10	12	6	8	8
TAZD225*025L□#@0^++	D	2.2	25	2	1	10	12	6	8	8
TAZE225*025C□#@0^++	E	2.2	25	3.5	1	10	12	6	8	8
TAZE225*025L□#@0^++	E	2.2	25	1	1	10	12	6	8	8
TAZE335*025C□#@0^++	E	3.3	25	4	1	10	12	6	8	8
TAZE335*025L□#@0^++	E	3.3	25	1.2	1	10	12	6	8	8
TAZF475*025C□#@0^++	F	4.7	25	2.5	2	20	24	6	8	8
TAZF475*025L□#@0^++	F	4.7	25	0.7	2	20	24	6	8	8
TAZF685*025C□#@0^++	F	6.8	25	3	2	20	24	6	8	8
TAZF685*025L□#@0^++	F	6.8	25	0.8	2	20	24	6	8	8
TAZG685*025C□#@0^++	G	6.8	25	1.2	2	20	24	6	8	8
TAZG685*025L□#@0^++	G	6.8	25	0.3	2	20	24	6	8	8
TAZG106*025C□#@0^++	G	10	25	1.4	3	30	36	6	8	8
TAZG106*025L□#@0^++	G	10	25	0.35	3	30	36	6	8	8
TAZG156*025C□#@0^++	G	15	25	1.4	4	40	48	6	8	8
TAZG156*025L□#@0^++	G	15	25	0.35	4	40	48	6	8	8
TAZH156*025C□#@0^++	H	15	25	1	4	40	48	6	8	8
TAZH156*025L□#@0^++	H	15	25	0.2	4	40	48	6	8	8
TAZG226*025C□#@0^++	G	22	25	1.4	6	60	72	6	8	8
TAZG226*025L□#@0^++	G	22	25	0.35	6	60	72	6	8	8
TAZH226*025C□#@0^++	H	22	25	0.9	6	60	72	6	8	8
TAZH226*025L□#@0^++	H	22	25	0.18	6	60	72	6	8	8
TAZX226*025C□#@0^++	X	22	25	0.9	6	60	72	6	8	8
TAZX226*025L□#@0^++	X	22	25	0.16	6	60	72	6	8	8
TAZH336*025C□#@0^++	H	33	25	0.9	10	100	120	8	10	10
TAZH336*025L□#@0^++	H	33	25	0.18	10	100	120	6	8	8
TAZX336*025L□#@0^++	X	33	25	0.13	10	100	120	8	10	10
TAZX336*025C□#@0^++	X	33	25	0.9	10	100	120	8	10	10
TAZA224*035C□#@0^++	A	0.22	35	18	1	10	12	6	8	8
TAZA224*035L□#@0^++	A	0.22	35	12	1	10	12	6	8	8
TAZA334*035C□#@0^++	A	0.33	35	22	1	10	12	6	8	8
TAZA334*035L□#@0^++	A	0.33	35	12	1	10	12	6	8	8
TAZB474*035C□#@0^++	B	0.47	35	10	1	10	12	6	8	8
TAZB474*035L□#@0^++	B	0.47	35	6.8	1	10	12	6	8	8
TAZC684*035C□#@0^++	C	0.68	35	8	1	10	12	6	8	8

Following the voltage code, C designates Standard, L designates Low ESR Ratings

TAZ Series

COTS-Plus

Part Number	Case Size	Cap (nom) (µF)	DC rated voltage (85°C) (volts)	ESR (max) 100 kHz +25°C (ohms)	DC Leakage (max)			Dissipation Factor (max)		
					+25°C (µA)	+85°C (µA)	+125°C (µA)	+25°C (%)	+85/125°C (%)	-55°C (%)
TAZC684*035C□#@0^++	C	0.68	35	10	1	10	12	6	8	8
TAZC684*035L□#@0^++	C	0.68	35	4	1	10	12	6	8	8
TAZD105*035C□#@0^++	D	1	35	6.5	1	10	12	6	8	8
TAZD105*035L□#@0^++	D	1	35	2.2	1	10	12	6	8	8
TAZE155*035C□#@0^++	E	1.5	35	4.5	1	10	12	6	8	8
TAZE155*035L□#@0^++	E	1.5	35	1.3	1	10	12	6	8	8
TAZF335*035C□#@0^++	F	3.3	35	2.5	1	10	12	6	8	8
TAZF335*035L□#@0^++	F	3.3	35	0.7	1	10	12	6	8	8
TAZG475*035C□#@0^++	G	4.7	35	1.5	2	20	24	6	8	8
TAZG475*035L□#@0^++	G	4.7	35	0.375	2	20	24	6	8	8
TAZG685*035C□#@0^++	G	6.8	35	1.5	3	30	36	6	8	8
TAZG685*035L□#@0^++	G	6.8	35	0.375	3	30	36	6	8	8
TAZH685*035C□#@0^++	H	6.8	35	1.3	3	30	36	6	8	8
TAZH685*035L□#@0^++	H	6.8	35	0.5	3	30	36	6	8	8
TAZH106*035C□#@0^++	H	10	35	0.9	4	40	48	8	10	10
TAZH106*035L□#@0^++	H	10	35	0.5	4	40	48	8	10	10
TAZX156*035C□#@0^++	X	15	35	0.9	6	60	72	6	8	8
TAZX156*035L□#@0^++	X	15	35	0.19	6	60	72	6	8	8
TAZA104*050C□#@0^++	A	0.1	50	22	1	10	12	6	8	8
TAZA104*050L□#@0^++	A	0.1	50	12	1	10	12	6	8	8
TAZA154*050C□#@0^++	A	0.15	50	17	1	10	12	6	8	8
TAZA154*050L□#@0^++	A	0.15	50	12	1	10	12	6	8	8
TAZB224*050C□#@0^++	B	0.22	50	14	1	10	12	6	8	8
TAZB224*050L□#@0^++	B	0.22	50	6.8	1	10	12	6	8	8
TAZB334*050C□#@0^++	B	0.33	50	12	1	10	12	6	8	8
TAZB334*050L□#@0^++	B	0.33	50	4.8	1	10	12	6	8	8
TAZC474*050C□#@0^++	C	0.47	50	8	1	10	12	6	8	8
TAZC474*050C□#@0^++	C	0.47	50	8	1	10	12	6	8	8
TAZC474*050L□#@0^++	C	0.47	50	3.2	1	10	12	6	8	8
TAZD684*050C□#@0^++	D	0.68	50	7	1	10	12	6	8	8
TAZD684*050L□#@0^++	D	0.68	50	2.3	1	10	12	6	8	8
TAZE105*050C□#@0^++	E	1	50	6	1	10	12	6	8	8
TAZE105*050L□#@0^++	E	1	50	1.7	1	10	12	6	8	8
TAZF155*050C□#@0^++	F	1.5	50	4	1	10	12	6	8	8
TAZF155*050L□#@0^++	F	1.5	50	1.1	1	10	12	6	8	8
TAZF225*050C□#@0^++	F	2.2	50	2.5	2	20	24	6	8	8
TAZF225*050L□#@0^++	F	2.2	50	0.7	2	20	24	6	8	8
TAZG335*050C□#@0^++	G	3.3	50	2	2	20	24	6	8	8
TAZG335*050L□#@0^++	G	3.3	50	0.5	2	20	24	6	8	8
TAZH475*050C□#@0^++	H	4.7	50	1.5	3	30	36	6	8	8
TAZH475*050L□#@0^++	H	4.7	50	0.5	3	30	36	6	8	8

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