

Chip Solid MnO₂ Tantalum Capacitors – TC2 Series

Operating Temp.: -55°C ~ +125°C



FEATURES

- Meets or exceeds EIA-535BAAC standard
- Self-healing capability, high reliability
- Excellent stability of capacitance during operating temperature range
- High volumetric efficiency
- 100% surge current test

APPLICATIONS

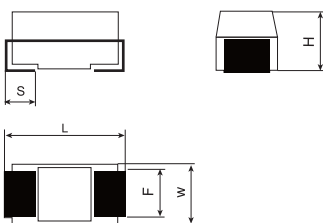
- Communication
- Consumer electronics
- Automotive electronics
- Instruments
- Medical electronics

PRODUCT IDENTIFICATION

TC ①	212 ②	B ③	105 ④	M ⑤	035 ⑥	B ⑦																																	
<table border="1"> <tr><th colspan="2">Type</th></tr> <tr><td>TC</td><td>Solid Tantalum Chip Capacitor</td></tr> <tr><td>ATC</td><td>Solid Tantalum Chip Cap. for Automotive</td></tr> </table>		Type		TC	Solid Tantalum Chip Capacitor	ATC	Solid Tantalum Chip Cap. for Automotive	<table border="1"> <tr><th colspan="2">Series</th></tr> <tr><td>211</td><td>Industrial</td></tr> <tr><td>212</td><td>Low ESR</td></tr> <tr><td>214</td><td>Automotive</td></tr> </table>		Series		211	Industrial	212	Low ESR	214	Automotive	<table border="1"> <tr><th colspan="2">(L×W) (mm)</th></tr> <tr><th colspan="2">External Dimensions (L×W) (mm)</th></tr> <tr><td>A</td><td>3.2×1.6</td></tr> <tr><td>B</td><td>3.5×2.8</td></tr> <tr><td>C</td><td>6.0×3.2</td></tr> <tr><td>D/E</td><td>7.3×4.3</td></tr> </table>			(L×W) (mm)		External Dimensions (L×W) (mm)		A	3.2×1.6	B	3.5×2.8	C	6.0×3.2	D/E	7.3×4.3							
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SHAPE AND DIMENSIONS

Unit: mm [inch]



Case	EIA	L	W	H	F	S
A	3216-18	3.20±0.20 [.126±.008]	1.60±0.20 [.063±.008]	1.60±0.20 [.063±.008]	1.20±0.10 [.040±.004]	0.80±0.30 [.031±.012]
B	3528-21	3.50±0.20 [.138±.008]	2.80±0.20 [.110±.008]	1.90±0.20 [.075±.008]	2.20±0.10 [.087±.004]	0.80±0.30 [.030±.012]
C	6032-28	6.00±0.30 [.236±.012]	3.20±0.30 [.126±.012]	2.50±0.30 [.098±.012]	2.20±0.10 [.087±.004]	1.30±0.30 [.051±.012]
D	7343-31	7.30±0.30 [.287±.012]	4.30±0.30 [.169±.012]	2.80±0.30 [.110±.012]	2.40±0.10 [.094±.004]	1.30±0.30 [.051±.012]
E	7343-43	7.30±0.30 [.287±.012]	4.30±0.30 [.169±.012]	4.00±0.30 [.161±.012]	2.40±0.10 [.094±.004]	1.30±0.30 [.051±.012]

Sunlord

Specifications subject to change without notice. Please check our website for latest information. Revised 2018/04/15

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TECHNICAL SPECIFICATION

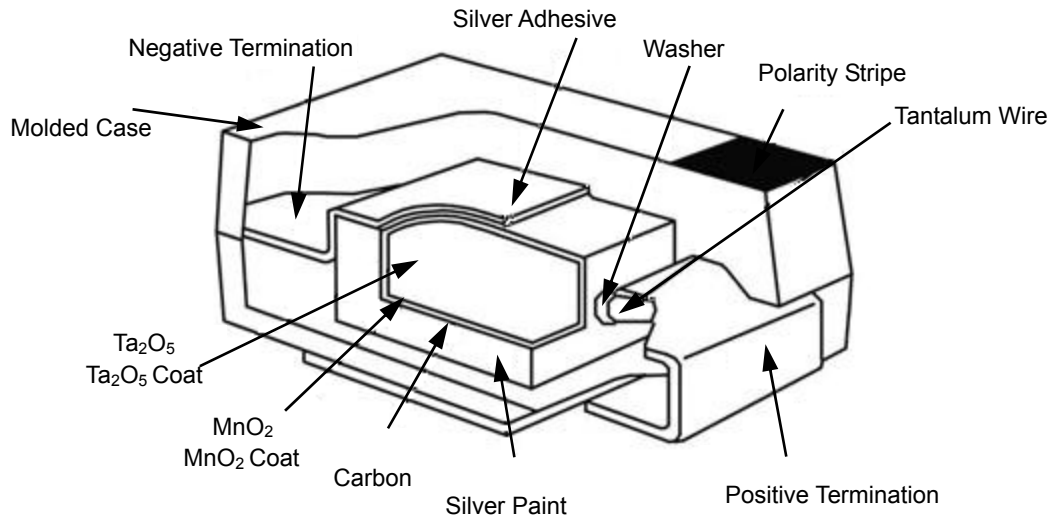
Item	SPEC									Test Condition
Operating Temp	-55℃~+125℃									
C _R Range	0.10μF~680μF									25℃, 120Hz
C _R Tolerance	±10% or ±20%									25℃, 120Hz
Rated Voltage (V _R)	2.5V	4V	6.3V	10V	16V	20V	25V	35V	50V	85℃
Category Voltage (V _C)	1.6V	2.5V	4V	6.3V	10V	13V	16V	20V	32V	125℃
Surge Voltage (V _S)	3.3V	5.2V	8V	13V	20V	26V	32V	46V	65V	85℃
Surge Voltage (V _S)	2.2V	3.4V	5V	8V	13V	16V	20V	28V	40V	125℃

STANDARD C-V VALUE BY CASE CODE

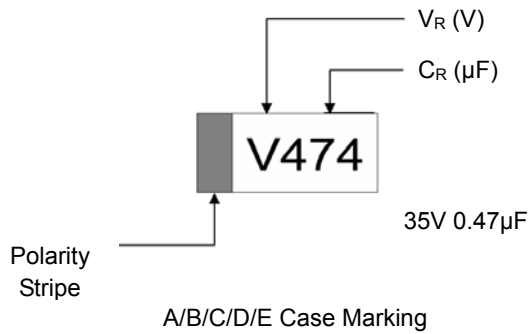
Rated Voltage (VR)		2.5	4	6.3	10	16	20	25	35	50
Voltage Code		e	G	J	A	C	D	E	V	T
CR (μF)	C Code	Case Code								
0.15	154									B
0.22	224									B/A
0.33	334							A	A	B/A
0.47	474							A	B/A	C/B/A
0.68	684						A	A	B/A	C/B/A
1.0	105			A	A	A	A	B/A	B/A	C/B
1.5	155			A	A	A	B/A	B/A	C/B	C/B
2.2	225		A	A	A	B/A	B/A	C/B/A	C/B/A	D/C/B
3.3	335		A	A	A	B/A	B/A	C/B/A	C/B	D/C/B
4.7	475		A	A	B/A	C/B/A	C/B/A	C/B/A	D/C/B	D
6.8	685		A	B/A	B/A	C/B/A	D/C/B/A	D/C/B	D/C	D
10	106	A	B/A	B/A	C/B/A	C/B/A	D/C/B	D/C/B	E/D/C	E/D
15	156	B/A	B/A	B/A	C/B/A	C/B	D/C	D/C/B	E/D	E
22	226	A	B/A	B/A	C/B/A	D/C/B/A	D/C/B	D/C	E/D	
33	336	A	C/B/A	C/B/A	D/C/B/A	D/C/B	D/C	E/D	E	
47	476	A	C/B/A	C/B/A	D/C/B/A	D/C/B	E/D/C	E/D	E	
68	686	B/A	D/C/B	D/C/B	D/C/B	D	E/D	E		
100	107	B/A	D/C/B/A	D/C/B/A	D/C/B	D/C	E/D	D		
150	157	B	D/C/B	D/C/B	E/D/C	E/D	E			
220	227	B	D/C/B	E/D/C/B	E/D	E/D				
330	337		E/D/C/B	E/D	E/D	E				
470	477		E	E/D	E					

※: The first case code is standard product and the others are expansion products.

CONSTRUCTION



MARKINGS



Rated Voltage Code

Rated Voltage(V_R)	2.5	4	6.3	10	16	20	25	35	50
Code	e	G	J	A	C	D	E	V	T

Capacitance Code

Capacitance (μF)	0.1	0.15	0.22	0.33	0.47	0.68	1.0	1.5	2.2	3.3	4.7	6.8
Code (A/B/C/D/E Case)	104	154	224	334	474	684	105	155	225	335	475	685
Capacitance (μF)	10	15	22	33	47	68	100	150	220	330	470	680
Code (A/B/C/D/E Case)	106	156	226	336	476	686	107	157	227	337	477	687

SPECIFICATIONS

TC211 TYPE

Capacitance (μF)	Case	Part Number	DCL (μA) +25°C Max.	DF (%) +25°C 120Hz Max.	ESR(Ω) +25°C 100kHz Max.
2.5V, +85°C (1.6V @ +125°C)					
10.0	A	TC211A106◎002□	0.5	6.0	5.0
15.0	A	TC211A156◎002□	0.5	6.0	6.0
15.0	B	TC211B156◎002□	0.5	6.0	4.0
22.0	A	TC211A226◎002□	0.6	6.0	4.0
33.0	A	TC211A336◎002□	0.8	6.0	4.0
47.0	A	TC211A476◎002□	1.2	10.0	4.0
68.0	A	TC211A686◎002□	1.7	10.0	3.0
68.0	B	TC211B686◎002□	1.7	6.0	2.0
100.0	A	TC211A107◎002□	2.5	20.0	2.5
100.0	B	TC211B107◎002□	2.5	8.0	1.5
150.0	B	TC211B157◎002□	3.8	10.0	2.0
220.0	B	TC211B227◎002□	5.5	18.0	2.0
4V, +85°C (2.5V @ +125°C)					
2.2	A	TC211A225◎004□	0.5	6.0	8.0
3.3	A	TC211A335◎004□	0.5	6.0	8.0
4.7	A	TC211A475◎004□	0.5	6.0	8.0
6.8	A	TC211A685◎004□	0.5	6.0	6.0
10.0	A	TC211A106◎004□	0.5	6.0	6.0
10.0	B	TC211B106◎004□	0.5	6.0	3.5
15.0	A	TC211A156◎004□	0.6	6.0	4.0
15.0	B	TC211B156◎004□	0.6	6.0	3.5
22.0	A	TC211A226◎004□	0.9	6.0	4.0
22.0	B	TC211B226◎004□	0.9	6.0	3.5
33.0	A	TC211A336◎004□	1.3	6.0	4.0
33.0	B	TC211B336◎004□	1.3	6.0	3.5
33.0	C	TC211C336◎004□	1.3	6.0	1.8
47.0	A	TC211A476◎004□	1.9	6.0	3.0
47.0	B	TC211B476◎004□	1.9	6.0	3.0
47.0	C	TC211C476◎004□	1.9	6.0	1.8
68.0	B	TC211B686◎004□	2.7	6.0	3.5
68.0	C	TC211C686◎004□	2.7	6.0	1.6
68.0	D	TC211D686◎004□	2.7	6.0	0.8
100.0	A	TC211A107◎004□	4.0	18.0	5.0
100.0	B	TC211B107◎004□	4.0	8.0	2.0
100.0	C	TC211C107◎004□	4.0	8.0	1.3
100.0	D	TC211D107◎004□	4.0	8.0	0.8
150.0	B	TC211B157◎004□	6.0	15.0	2.0
150.0	C	TC211C157◎004□	6.0	8.0	1.2
150.0	D	TC211D157◎004□	6.0	8.0	0.8
220.0	B	TC211B227◎004□	8.8	18.0	0.5
220.0	C	TC211C227◎004□	8.8	8.0	1.0
220.0	D	TC211D227◎004□	8.8	8.0	0.8
330.0	B	TC211B337◎004□	13.2	18.0	1.2
330.0	C	TC211C337◎004□	13.2	8.0	1.2
330.0	D	TC211D337◎004□	13.2	8.0	0.7
330.0	E	TC211E337◎004□	13.2	8.0	0.8
470.0	E	TC211E477◎004□	18.8	8.0	0.8
680.0	E	TC211E687◎004□	27.2	8.0	0.5
6.3V, +85°C (4.0V @ +125°C)					
1.0	A	TC211A105◎006□	0.5	6.0	14.0

Capacitance (μF)	Case	Part Number	DCL (μA) +25°C Max.	DF (%) +25°C 120Hz Max.	ESR(Ω) +25°C 100kHz Max.
1.5	A	TC211A155◎006□	0.5	6.0	8.0
2.2	A	TC211A225◎006□	0.5	6.0	8.0
3.3	A	TC211A335◎006□	0.5	6.0	8.0
4.7	A	TC211A475◎006□	0.5	6.0	6.0
6.8	A	TC211A685◎006□	0.5	6.0	6.0
6.8	B	TC211B685◎006□	0.5	6.0	3.5
10.0	A	TC211A106◎006□	0.6	6.0	4.0
10.0	B	TC211B106◎006□	0.6	6.0	3.5
15.0	A	TC211A156◎006□	0.9	6.0	4.0
15.0	B	TC211B156◎006□	0.9	6.0	3.5
22.0	A	TC211A226◎006□	1.3	6.0	4.0
22.0	B	TC211B226◎006□	1.3	6.0	3.5
33.0	A	TC211A336◎006□	2.1	8.0	4.5
33.0	B	TC211B336◎006□	2.1	6.0	3.0
33.0	C	TC211C336◎006□	2.1	6.0	1.8
47.0	A	TC211A476◎006□	3.0	8.0	3.5
47.0	B	TC211B476◎006□	3.0	6.0	3.0
47.0	C	TC211C476◎006□	3.0	6.0	1.6
68.0	B	TC211B686◎006□	4.3	10.0	1.2
68.0	C	TC211C686◎006□	4.3	6.0	1.2
68.0	D	TC211D686◎006□	4.3	6.0	0.8
100.0	A	TC211A107◎006□	6.3	20.0	4.0
100.0	B	TC211B107◎006□	6.3	10.0	3.0
100.0	C	TC211C107◎006□	6.3	8.0	1.2
100.0	D	TC211D107◎006□	6.3	8.0	0.8
150.0	B	TC211B157◎006□	9.5	15.0	1.0
150.0	C	TC211C157◎006□	9.5	8.0	1.2
150.0	D	TC211D157◎006□	9.5	8.0	0.8
220.0	B	TC211B227◎006□	13.9	18.0	1.0
220.0	C	TC211C227◎006□	13.9	8.0	1.2
220.0	D	TC211D227◎006□	13.9	8.0	0.7
220.0	E	TC211E227◎006□	13.9	8.0	0.5
330.0	D	TC211D337◎006□	20.8	8.0	0.5
330.0	E	TC211E337◎006□	20.8	8.0	0.5
470.0	D	TC211D477◎006□	29.6	12.0	0.4
470.0	E	TC211E477◎006□	29.6	10.0	0.5
10V, +85°C (6.3V @ +125°C)					
1.0	A	TC211A105◎010□	0.5	4.0	13.0
1.5	A	TC211A155◎010□	0.5	6.0	8.0
2.2	A	TC211A225◎010□	0.5	6.0	8.0
3.3	A	TC211A335◎010□	0.5	6.0	6.0
4.7	A	TC211A475◎010□	0.5	6.0	6.0
4.7	B	TC211B475◎010□	0.5	6.0	3.5
6.8	A	TC211A685◎010□	0.7	6.0	6.0
6.8	B	TC211B685◎010□	0.7	6.0	3.5
10.0	A	TC211A106◎010□	1.0	6.0	4.0
10.0	B	TC211B106◎010□	1.0	6.0	3.5
10.0	C	TC211C106◎010□	1.0	6.0	1.8
15.0	A	TC211A156◎010□	1.5	6.0	6.0
15.0	B	TC211B156◎010□	1.5	6.0	3.5
15.0	C	TC211C156◎010□	1.5	6.0	1.8



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TC211 TYPE

Capacitance (μF)	Case	Part Number	DCL (μA) +25°C Max.	DF (%) +25°C 120Hz Max.	ESR(Ω) +25°C 100kHz Max.
22.0	A	TC211A226◎010□	2.2	8.0	4.0
22.0	B	TC211B226◎010□	2.2	6.0	3.0
22.0	C	TC211C226◎010□	2.2	6.0	1.8
33.0	A	TC211A336◎010□	3.3	15.0	6.0
33.0	B	TC211B336◎010□	3.3	6.0	3.5
33.0	C	TC211C336◎010□	3.3	6.0	1.6
33.0	D	TC211D336◎010□	3.3	6.0	0.8
47.0	A	TC211A476◎010□	4.7	15.0	4.0
47.0	B	TC211B476◎010□	4.7	6.0	1.0
47.0	C	TC211C476◎010□	4.7	6.0	1.2
47.0	D	TC211D476◎010□	4.7	6.0	0.8
68.0	B	TC211B686◎010□	6.8	10.0	3.0
68.0	C	TC211C686◎010□	6.8	6.0	1.2
68.0	D	TC211D686◎010□	6.8	6.0	0.8
100.0	B	TC211B107◎010□	10.0	15.0	1.5
100.0	C	TC211C107◎010□	10.0	8.0	1.2
100.0	D	TC211D107◎010□	10.0	8.0	0.7
150.0	C	TC211C157◎010□	15.0	10.0	0.9
150.0	D	TC211D157◎010□	15.0	8.0	0.7
150.0	E	TC211E157◎010□	15.0	8.0	0.5
220.0	D	TC211D227◎010□	22.0	8.0	0.5
220.0	E	TC211E227◎010□	22.0	8.0	0.5
330.0	D	TC211D337◎010□	33.0	10.0	0.5
330.0	E	TC211E337◎010□	33.0	10.0	0.5
470.0	E	TC211E477◎010□	47.0	10.0	0.5
16V, +85°C (10V @ +125°C)					
1.0	A	TC211A105◎016□	0.5	4.0	10.0
1.5	A	TC211A155◎016□	0.5	6.0	8.0
2.2	A	TC211A225◎016□	0.5	6.0	6.0
2.2	B	TC211B225◎016□	0.5	6.0	4.0
3.3	A	TC211A335◎016□	0.52	6.0	6.0
3.3	B	TC211B335◎016□	0.5	6.0	3.5
4.7	A	TC211A475◎016□	0.8	6.0	6.0
4.7	B	TC211B475◎016□	0.8	6.0	3.5
4.7	C	TC211C475◎016□	0.8	6.0	2.4
6.8	A	TC211A685◎016□	1.1	6.0	7.0
6.8	B	TC211B685◎016□	1.1	6.0	3.5
6.8	C	TC211C685◎016□	1.1	6.0	2.0
10.0	A	TC211A106◎016□	1.6	8.0	7.0
10.0	B	TC211B106◎016□	1.6	6.0	2.8
10.0	C	TC211C106◎016□	1.6	6.0	1.8
15.0	B	TC211B156◎016□	2.4	6.0	3.0
15.0	C	TC211C156◎016□	2.4	6.0	1.8
22.0	A	TC211A226◎016□	3.5	15.0	4.0
22.0	B	TC211B226◎016□	3.5	8.0	2.2
22.0	C	TC211C226◎016□	3.5	6.0	1.6
22.0	D	TC211D226◎016□	3.5	6.0	0.8
33.0	B	TC211B336◎016□	5.3	8.0	2.0
33.0	C	TC211C336◎016□	5.3	6.0	1.2
33.0	D	TC211D336◎016□	5.3	6.0	0.8
47.0	B	TC211B476◎016□	7.5	18.0	1.0

Capacitance (μF)	Case	Part Number	DCL (μA) +25°C Max.	DF (%) +25°C 120Hz Max.	ESR(Ω) +25°C 100kHz Max.
47.0	C	TC211C476◎016□	7.5	6.0	1.2
47.0	D	TC211D476◎016□	7.5	6.0	0.8
68.0	D	TC211D686◎016□	10.8	6.0	0.8
100.0	C	TC211C107◎016□	16.0	10.0	1.0
100.0	D	TC211D107◎016□	16.0	8.0	0.7
150.0	D	TC211D157◎016□	24.0	12.0	0.7
150.0	E	TC211E157◎016□	24.0	8.0	0.5
220.0	D	TC211D227◎016□	35.2	15.0	0.9
220.0	E	TC211E227◎016□	35.2	10.0	0.5
330.0	E	TC211E337◎016□	52.8	10.0	0.5
20V, +85°C (13V @ +125°C)					
0.68	A	TC211A684◎020□	0.5	4.0	12.0
1.0	A	TC211A105◎020□	0.5	4.0	10.0
1.5	A	TC211A155◎020□	0.5	6.0	8.0
1.5	B	TC211B155◎020□	0.5	6.0	5.0
2.2	A	TC211A225◎020□	0.5	6.0	7.0
2.2	B	TC211B225◎020□	0.5	6.0	3.5
3.3	A	TC211A335◎020□	0.7	6.0	7.0
3.3	B	TC211B335◎020□	0.7	6.0	3.5
4.7	A	TC211A475◎020□	0.9	6.0	4.0
4.7	B	TC211B475◎020□	0.9	6.0	3.5
4.7	C	TC211C475◎020□	0.9	6.0	2.4
6.8	A	TC211A685◎020□	1.4	8.0	6.0
6.8	B	TC211B685◎020□	1.4	6.0	3.5
6.8	C	TC211C685◎020□	1.4	6.0	2.0
6.8	D	TC211D685◎020□	1.4	6.0	1.9
10.0	B	TC211B106◎020□	2.0	6.0	3.0
10.0	C	TC211C106◎020□	2.0	6.0	1.8
10.0	D	TC211D106◎020□	2.0	6.0	1.0
15.0	C	TC211C156◎020□	3.0	6.0	1.7
15.0	D	TC211D156◎020□	3.0	6.0	1.0
22.0	B	TC211B226◎020□	4.4	8.0	4.0
22.0	C	TC211C226◎020□	4.4	6.0	1.2
22.0	D	TC211D226◎020□	4.4	6.0	0.8
33.0	C	TC211C336◎020□	6.6	6.0	1.2
33.0	D	TC211D336◎020□	6.6	6.0	0.8
47.0	C	TC211C476◎020□	9.4	10.0	1.0
47.0	D	TC211D476◎020□	9.4	6.0	0.8
47.0	E	TC211E476◎020□	9.4	6.0	0.8
68.0	D	TC211D686◎020□	13.6	6.0	0.8
68.0	E	TC211E686◎020□	13.6	6.0	0.8
100.0	D	TC211D107◎020□	20.0	8.0	0.6
100.0	E	TC211E107◎020□	20.0	8.0	0.5
150.0	E	TC211E157◎020□	30.0	8.0	0.5
25V, +85°C (16V @ +125°C)					
0.33	A	TC211A334◎025□	0.5	4.0	15.0
0.47	A	TC211A474◎025□	0.5	4.0	14.0
0.68	A	TC211A684◎025□	0.5	4.0	10.0
1.0	A	TC211A105◎025□	0.5	4.0	8.0
1.0	B	TC211B105◎025□	0.5	4.0	5.0
1.5	A	TC211A155◎025□	0.5	6.0	10.0

SPECIFICATIONS

TC211 TYPE

Capacitance (μF)	Case	Part Number	DCL (μA) +25°C Max.	DF (%) +25°C 120Hz Max.	ESR(Ω) +25°C 100kHz Max.
1.5	B	TC211B155◎025□	0.5	6.0	5.0
2.2	A	TC211A225◎025□	0.6	6.0	6.0
2.2	B	TC211B225◎025□	0.6	6.0	4.5
2.2	C	TC211C225◎025□	0.6	6.0	3.5
3.3	A	TC211A335◎025□	0.8	6.0	7.0
3.3	B	TC211B335◎025□	0.8	6.0	3.5
3.3	C	TC211C335◎025□	0.8	6.0	2.5
4.7	A	TC211A475◎025□	1.2	8.0	6.0
4.7	B	TC211B475◎025□	1.2	6.0	2.0
4.7	C	TC211C475◎025□	1.2	6.0	2.4
6.8	B	TC211B685◎025□	1.7	6.0	3.0
6.8	C	TC211C685◎025□	1.7	6.0	1.9
6.8	D	TC211D685◎025□	1.7	6.0	1.2
10.0	B	TC211B106◎025□	2.5	6.0	3.0
10.0	C	TC211C106◎025□	2.5	6.0	1.5
10.0	D	TC211D106◎025□	2.5	6.0	1.0
15.0	B	TC211B156◎025□	3.8	8.0	4.0
15.0	C	TC211C156◎025□	3.8	6.0	1.5
15.0	D	TC211D156◎025□	3.8	6.0	1.0
22.0	C	TC211C226◎025□	5.5	6.0	1.4
22.0	D	TC211D226◎025□	5.5	6.0	0.8
33.0	D	TC211D336◎025□	8.3	6.0	0.8
33.0	E	TC211E336◎025□	8.3	6.0	0.7
47.0	D	TC211D476◎025□	11.7	6.0	0.8
47.0	E	TC211E476◎025□	11.7	6.0	0.7
68.0	E	TC211E686◎025□	17.0	6.0	0.7
100.0	D	TC211D107◎025□	25.0	10.0	1.2
35V, +85°C (20V @ +125°C)					
0.33	A	TC211A334◎035□	0.5	4.0	15.0
0.47	A	TC211A474◎035□	0.5	4.0	14.0
0.47	B	TC211B474◎035□	0.5	4.0	8.0
0.68	A	TC211A684◎035□	0.5	4.0	10.0
0.68	B	TC211B684◎035□	0.5	4.0	6.5
1.0	A	TC211A105◎035□	0.5	4.0	10.0
1.0	B	TC211B105◎035□	0.5	4.0	5.0
1.5	B	TC211B155◎035□	0.5	6.0	5.0
1.5	C	TC211C155◎035□	0.5	6.0	4.5
2.2	A	TC211A225◎035□	0.8	6.0	6.0
2.2	B	TC211B225◎035□	0.8	6.0	4.0
2.2	C	TC211C225◎035□	0.8	6.0	3.5
3.3	B	TC211B335◎035□	1.2	6.0	3.5

Capacitance (μF)	Case	Part Number	DCL (μA) +25°C Max.	DF (%) +25°C 120Hz Max.	ESR(Ω) +25°C 100kHz Max.
3.3	C	TC211C335◎035□	1.2	6.0	2.5
4.7	B	TC211B475◎035□	1.6	6.0	3.0
4.7	C	TC211C475◎035□	1.6	6.0	2.5
4.7	D	TC211D475◎035□	1.6	6.0	1.5
6.8	C	TC211C685◎035□	2.4	6.0	2.0
6.8	D	TC211D685◎035□	2.4	6.0	1.5
10.0	C	TC211C106◎035□	3.5	6.0	2.0
10.0	D	TC211D106◎035□	3.5	6.0	1.0
10.0	E	TC211E106◎035□	3.5	6.0	1.0
15.0	D	TC211D156◎035□	5.3	6.0	1.0
15.0	E	TC211E156◎035□	5.3	6.0	0.9
22.0	D	TC211D226◎035□	7.7	6.0	0.8
22.0	E	TC211E226◎035□	7.7	6.0	0.7
33.0	E	TC211E336◎035□	11.0	6.0	0.6
47.0	E	TC211E476◎035□	16.5	8.0	0.6
50V, +85°C (32V @ +125°C)					
0.15	B	TC211B154◎050□	0.5	4.0	16.0
0.22	A	TC211A224◎050□	0.5	4.0	18.0
0.22	B	TC211B224◎050□	0.5	4.0	14.0
0.33	A	TC211A334◎050□	0.5	4.0	15.0
0.33	B	TC211B334◎050□	0.5	4.0	10.0
0.47	A	TC211A474◎050□	0.5	4.0	12.0
0.47	B	TC211B474◎050□	0.5	4.0	9.0
0.47	C	TC211C474◎050□	0.5	4.0	8.0
0.68	A	TC211A684◎050□	0.5	4.0	10.0
0.68	B	TC211B684◎050□	0.5	4.0	8.0
0.68	C	TC211C684◎050□	0.5	4.0	7.0
1.0	B	TC211B105◎050□	0.5	6.0	6.0
1.0	C	TC211C105◎050□	0.5	4.0	5.5
1.5	B	TC211B155◎050□	0.8	6.0	4.5
1.5	C	TC211C155◎050□	0.8	6.0	3.5
2.2	B	TC211B225◎050□	1.1	6.0	2.0
2.2	C	TC211C225◎050□	1.1	6.0	3.5
2.2	D	TC211D225◎050□	1.1	6.0	2.5
3.3	B	TC211B335◎050□	1.7	6.0	5.0
3.3	C	TC211C335◎050□	1.7	6.0	3.0
3.3	D	TC211D335◎050□	1.7	6.0	2.0
4.7	D	TC211D475◎050□	2.4	6.0	1.5
6.8	D	TC211D685◎050□	3.4	6.0	1.2
10.0	D	TC211D106◎050□	5.0	6.0	1.0
10.0	E	TC211E106◎050□	5.0	6.0	0.7
15.0	E	TC211E156◎050□	7.5	6.0	0.7

SPECIFICATIONS



Specifications subject to change without notice. Please check our website for latest information. Revised 2018/04/15

TC212 TYPE

Capacitance (μF)	Case	Part Number	DCL (μA) +25°C Max.	DF (%) +25°C 120Hz Max.	ESR(Ω) +25°C 100kHz Max.
2.5V, +85°C (1.6V @ +125°C)					
10.0	A	TC212A106◎002□	0.5	6.0	4.0
15.0	A	TC212A156◎002□	0.5	6.0	4.0
15.0	B	TC212B156◎002□	0.5	6.0	3.0
22.0	A	TC212A226◎002□	0.6	6.0	3.0
33.0	A	TC212A336◎002□	0.8	6.0	3.0
47.0	A	TC212A476◎002□	1.2	10.0	3.0
68.0	A	TC212A686◎002□	1.7	10.0	2.5
68.0	B	TC212B686◎002□	1.7	6.0	1.8
100.0	A	TC212A107◎002□	2.5	20.0	2.0
100.0	B	TC212B107◎002□	2.5	8.0	1.0
150.0	B	TC212B157◎002□	3.8	10.0	1.5
220.0	B	TC212B227◎002□	5.5	18.0	1.5
4V, +85°C (2.5V @ +125°C)					
2.2	A	TC212A225◎004□	0.5	6.0	6.0
3.3	A	TC212A335◎004□	0.5	6.0	6.0
4.7	A	TC212A475◎004□	0.5	6.0	5.0
6.8	A	TC212A685◎004□	0.5	6.0	4.0
10.0	A	TC212A106◎004□	0.5	6.0	3.0
10.0	B	TC212B106◎004□	0.5	6.0	1.5
15.0	A	TC212A156◎004□	0.6	6.0	1.5
15.0	B	TC212B156◎004□	0.6	6.0	1.2
22.0	A	TC212A226◎004□	0.9	6.0	1.5
22.0	B	TC212B226◎004□	0.9	6.0	0.6
33.0	A	TC212A336◎004□	1.3	6.0	2.5
33.0	B	TC212B336◎004□	1.3	6.0	0.5
33.0	C	TC212C336◎004□	1.3	6.0	0.8
47.0	A	TC212A476◎004□	1.9	6.0	2.0
47.0	B	TC212B476◎004□	1.9	6.0	0.8
47.0	C	TC212C476◎004□	1.9	6.0	1.0
68.0	B	TC212B686◎004□	2.7	6.0	2.5
68.0	C	TC212C686◎004□	2.7	6.0	0.5
68.0	D	TC212D686◎004□	2.7	6.0	0.5
100.0	A	TC212A107◎004□	4.0	18.0	3.0
100.0	B	TC212B107◎004□	4.0	8.0	1.0
100.0	C	TC212C107◎004□	4.0	8.0	0.35
100.0	D	TC212D107◎004□	4.0	8.0	0.2
150.0	B	TC212B157◎004□	6.0	15.0	1.0
150.0	C	TC212C157◎004□	6.0	8.0	0.3
150.0	D	TC212D157◎004□	6.0	8.0	0.2
220.0	B	TC212B227◎004□	8.8	18.0	0.4
220.0	C	TC212C227◎004□	8.8	8.0	0.5
220.0	D	TC212D227◎004□	8.8	8.0	0.3
330.0	B	TC212B337◎004□	13.2	18.0	0.7
330.0	C	TC212C337◎004□	13.2	8.0	0.8
330.0	D	TC212D337◎004□	13.2	8.0	0.2
330.0	E	TC212E337◎004□	13.2	8.0	0.2
470.0	E	TC212E477◎004□	18.8	8.0	0.2
680.0	E	TC212E687◎004□	27.2	8.0	0.2
6.3V, +85°C (4.0V @ +125°C)					

Capacitance (μF)	Case	Part Number	DCL (μA) +25°C Max.	DF (%) +25°C 120Hz Max.	ESR(Ω) +25°C 100kHz Max.
1.0	A	TC212A105◎006□	0.5	6.0	10.0
1.5	A	TC212A155◎006□	0.5	6.0	6.0
2.2	A	TC212A225◎006□	0.5	6.0	6.0
3.3	A	TC212A335◎006□	0.5	6.0	6.0
4.7	A	TC212A475◎006□	0.5	6.0	4.0
6.8	A	TC212A685◎006□	0.5	6.0	3.5
6.8	B	TC212B685◎006□	0.5	6.0	3.0
10.0	A	TC212A106◎006□	0.6	6.0	2.0
10.0	B	TC212B106◎006□	0.6	6.0	1.0
15.0	A	TC212A156◎006□	0.9	6.0	2.0
15.0	B	TC212B156◎006□	0.9	6.0	0.7
22.0	A	TC212A226◎006□	1.4	6.0	2.5
22.0	B	TC212B226◎006□	1.4	6.0	0.8
33.0	A	TC212A336◎006□	2.1	8.0	1.5
33.0	B	TC212B336◎006□	2.1	6.0	0.8
33.0	C	TC212C336◎006□	2.1	6.0	0.3
47.0	A	TC212A476◎006□	2.9	8.0	2.5
47.0	B	TC212B476◎006□	2.9	6.0	0.5
47.0	C	TC212C476◎006□	2.9	6.0	0.3
68.0	B	TC212B686◎006□	4.3	10.0	0.65
68.0	C	TC212C686◎006□	4.3	6.0	0.3
68.0	D	TC212D686◎006□	4.3	6.0	0.2
100.0	A	TC212A107◎006□	6.3	20.0	2.0
100.0	B	TC212B107◎006□	6.3	10.0	1.5
100.0	C	TC212C107◎006□	6.3	8.0	0.3
100.0	D	TC212D107◎006□	6.3	8.0	0.2
150.0	B	TC212B157◎006□	9.5	15.0	0.6
150.0	C	TC212C157◎006□	9.5	8.0	0.3
150.0	D	TC212D157◎006□	9.5	8.0	0.2
220.0	B	TC212B227◎006□	13.9	18.0	0.7
220.0	C	TC212C227◎006□	13.9	8.0	0.3
220.0	D	TC212D227◎006□	13.9	8.0	0.15
220.0	E	TC212E227◎006□	13.9	8.0	0.15
330.0	D	TC212D337◎006□	20.8	8.0	0.15
330.0	E	TC212E337◎006□	20.8	8.0	0.15
470.0	D	TC212D477◎006□	29.6	12.0	0.15
470.0	E	TC212E477◎006□	29.6	10.0	0.12
10V, +85°C (6.3V @ +125°C)					
1.0	A	TC212A105◎010□	0.5	4.0	8.0
1.5	A	TC212A155◎010□	0.5	6.0	6.0
2.2	A	TC212A225◎010□	0.5	6.0	6.0
3.3	A	TC212A335◎010□	0.5	6.0	4.0
4.7	A	TC212A475◎010□	0.5	6.0	3.0
4.7	B	TC212B475◎010□	0.5	6.0	1.5
6.8	A	TC212A685◎010□	0.7	6.0	3.0
6.8	B	TC212B685◎010□	0.7	6.0	1.2
10.0	A	TC212A106◎010□	1.0	6.0	1.8
10.0	B	TC212B106◎010□	1.0	6.0	0.8
10.0	C	TC212C106◎010□	1.0	6.0	0.6
15.0	A	TC212A156◎010□	1.5	6.0	4.0

SPECIFICATIONS



Specifications subject to change without notice. Please check our website for latest information. Revised 2018/04/15

TC212 TYPE

Capacitance (μF)	Case	Part Number	DCL (μA) +25°C Max.	DF (%) +25°C 120Hz Max.	ESR(Ω) +25°C 100kHz Max.
15.0	B	TC212B156◎010□	1.5	6.0	0.7
15.0	C	TC212C156◎010□	1.5	6.0	0.5
22.0	A	TC212A226◎010□	2.2	8.0	2.5
22.0	B	TC212B226◎010□	2.2	6.0	1.0
22.0	C	TC212C226◎010□	2.2	6.0	0.4
33.0	A	TC212A336◎010□	3.3	15.0	4.0
33.0	B	TC212B336◎010□	3.3	6.0	1.0
33.0	C	TC212C336◎010□	3.3	6.0	0.4
33.0	D	TC212D336◎010□	3.3	6.0	0.25
47.0	A	TC212A476◎010□	4.7	15.0	1.5
47.0	B	TC212B476◎010□	4.7	6.0	0.65
47.0	C	TC212C476◎010□	4.7	6.0	0.3
47.0	D	TC212D476◎010□	4.7	6.0	0.22
68.0	B	TC212B686◎010□	6.8	10.0	1.5
68.0	C	TC212C686◎010□	6.8	6.0	0.3
68.0	D	TC212D686◎010□	6.8	6.0	0.2
100.0	B	TC212B107◎010□	10.0	15.0	1.0
100.0	C	TC212C107◎010□	10.0	8.0	0.3
100.0	D	TC212D107◎010□	10.0	8.0	0.15
150.0	C	TC212C157◎010□	15.0	10.0	0.7
150.0	D	TC212D157◎010□	15.0	8.0	0.15
150.0	E	TC212E157◎010□	15.0	8.0	0.15
220.0	D	TC212D227◎010□	22.0	8.0	0.15
220.0	E	TC212E227◎010□	22.0	8.0	0.15
330.0	D	TC212D337◎010□	33.0	10.0	0.15
330.0	E	TC212E337◎010□	33.0	10.0	0.2
470.0	E	TC212E477◎010□	47.0	10.0	0.2
16V, +85°C (10V @ +125°C)					
1.0	A	TC212A105◎016□	0.5	4.0	8.0
1.5	A	TC212A155◎016□	0.5	6.0	6.0
2.2	A	TC212A225◎016□	0.5	6.0	4.0
2.2	B	TC212B225◎016□	0.5	6.0	3.0
3.3	A	TC212A335◎016□	0.5	6.0	5.0
3.3	B	TC212B335◎016□	0.5	6.0	2.5
4.7	A	TC212A475◎016□	0.8	6.0	5.0
4.7	B	TC212B475◎016□	0.8	6.0	2.5
4.7	C	TC212C475◎016□	0.8	6.0	1.5
6.8	A	TC212A685◎016□	1.1	6.0	5.0
6.8	B	TC212B685◎016□	1.1	6.0	2.5
6.8	C	TC212C685◎016□	1.1	6.0	1.0
10.0	A	TC212A106◎016□	1.6	8.0	3.0
10.0	B	TC212B106◎016□	1.6	6.0	0.8
10.0	C	TC212C106◎016□	1.6	6.0	1.5
15.0	B	TC212B156◎016□	2.4	6.0	2.0
15.0	C	TC212C156◎016□	2.4	6.0	1.2
22.0	A	TC212A226◎016□	3.5	15.0	2.0
22.0	B	TC212B226◎016□	3.5	8.0	1.5
22.0	C	TC212C226◎016□	3.5	6.0	1.2
22.0	D	TC212D226◎016□	3.5	6.0	0.6
33.0	B	TC212B336◎016□	5.3	8.0	1.0
33.0	C	TC212C336◎016□	5.3	6.0	1.0

Capacitance (μF)	Case	Part Number	DCL (μA) +25°C Max.	DF (%) +25°C 120Hz Max.	ESR(Ω) +25°C 100kHz Max.
33.0	D	TC212D336◎016□	5.3	6.0	0.5
47.0	B	TC212B476◎016□	7.5	18.0	0.7
47.0	C	TC212C476◎016□	7.5	6.0	0.8
47.0	D	TC212D476◎016□	7.5	6.0	0.5
68.0	D	TC212D686◎016□	10.8	6.0	0.5
100.0	C	TC212C107◎016□	16.0	10.0	0.7
100.0	D	TC212D107◎016□	16.0	8.0	0.5
150.0	D	TC212D157◎016□	24.0	12.0	0.4
150.0	E	TC212E157◎016□	24.0	8.0	0.15
220.0	D	TC212D227◎016□	35.2	15.0	0.6
220.0	E	TC212E227◎016□	35.2	10.0	0.2
330.0	E	TC212E337◎016□	52.8	10.0	0.2
20V, +85°C (13V @ +125°C)					
0.68	A	TC212A684◎020□	0.5	4.0	10.0
1.0	A	TC212A105◎020□	0.5	4.0	8.0
1.5	A	TC212A155◎020□	0.5	6.0	4.5
1.5	B	TC212B155◎020□	0.5	6.0	1.5
2.2	A	TC212A225◎020□	0.5	6.0	4.0
2.2	B	TC212B225◎020□	0.5	6.0	3.0
3.3	A	TC212A335◎020□	0.7	6.0	6.0
3.3	B	TC212B335◎020□	0.7	6.0	2.5
4.7	A	TC212A475◎020□	0.9	6.0	3.5
4.7	B	TC212B475◎020□	0.9	6.0	2.5
4.7	C	TC212C475◎020□	0.9	6.0	1.2
6.8	A	TC212A685◎020□	1.4	8.0	3.0
6.8	B	TC212B685◎020□	1.4	6.0	2.5
6.8	C	TC212C685◎020□	1.4	6.0	1.2
6.8	D	TC212D685◎020□	1.4	6.0	0.8
10.0	B	TC212B106◎020□	2.0	6.0	2.0
10.0	C	TC212C106◎020□	2.0	6.0	1.2
10.0	D	TC212D106◎020□	2.0	6.0	0.8
15.0	C	TC212C156◎020□	3.0	6.0	1.2
15.0	D	TC212D156◎020□	3.0	6.0	0.8
22.0	B	TC212B226◎020□	4.4	8.0	3.0
22.0	C	TC212C226◎020□	4.4	6.0	0.4
22.0	D	TC212D226◎020□	4.4	6.0	0.5
33.0	C	TC212C336◎020□	6.6	6.0	0.6
33.0	D	TC212D336◎020□	6.6	6.0	0.4
47.0	C	TC212C476◎020□	9.4	10.0	0.8
47.0	D	TC212D476◎020□	9.4	6.0	0.6
47.0	E	TC212E476◎020□	9.4	6.0	0.3
68.0	D	TC212D686◎020□	13.6	6.0	0.4
68.0	E	TC212E686◎020□	13.6	6.0	0.3
100.0	D	TC212D107◎020□	20.0	8.0	0.2
100.0	E	TC212E107◎020□	20.0	8.0	0.2
150.0	E	TC212E157◎020□	30.0	8.0	0.2
25V, +85°C (16V @ +125°C)					
0.33	A	TC212A334◎025□	0.5	4.0	12.0
0.47	A	TC212A474◎025□	0.5	4.0	10.0
0.68	A	TC212A684◎025□	0.5	4.0	6.0
1.0	A	TC212A105◎025□	0.5	4.0	6.0



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SPECIFICATIONS

TC212 TYPE

Capacitance (μF)	Case	Part Number	DCL (μA) +25°C Max.	DF (%) +25°C 120Hz Max.	ESR(Ω) +25°C 100kHz Max.
1.0	B	TC212B105◎025□	0.5	4.0	4.0
1.5	A	TC212A155◎025□	0.5	6.0	5.0
1.5	B	TC212B155◎025□	0.5	6.0	3.5
2.2	A	TC212A225◎025□	0.6	6.0	4.0
2.2	B	TC212B225◎025□	0.6	6.0	3.0
2.2	C	TC212C225◎025□	0.6	6.0	2.0
3.3	A	TC212A335◎025□	0.8	6.0	3.0
3.3	B	TC212B335◎025□	0.8	6.0	2.5
3.3	C	TC212C335◎025□	0.8	6.0	2.0
4.7	A	TC212A475◎025□	1.2	8.0	3.0
4.7	B	TC212B475◎025□	1.2	6.0	1.0
4.7	C	TC212C475◎025□	1.2	6.0	0.6
6.8	B	TC212B685◎025□	1.7	6.0	1.2
6.8	C	TC212C685◎025□	1.7	6.0	0.8
6.8	D	TC212D685◎025□	1.7	6.0	0.5
10.0	B	TC212B106◎025□	2.5	6.0	2.0
10.0	C	TC212C106◎025□	2.5	6.0	1.4
10.0	D	TC212D106◎025□	2.5	6.0	0.8
15.0	B	TC212B156◎025□	3.8	8.0	3.0
15.0	C	TC212C156◎025□	3.8	6.0	1.2
15.0	D	TC212D156◎025□	3.8	6.0	0.8
22.0	C	TC212C226◎025□	5.5	6.0	1.0
22.0	D	TC212D226◎025□	5.5	6.0	0.6
33.0	D	TC212D336◎025□	8.3	6.0	0.6
33.0	E	TC212E336◎025□	8.3	6.0	0.5
47.0	D	TC212D476◎025□	11.7	6.0	0.4
47.0	E	TC212E476◎025□	11.7	6.0	0.4
68.0	E	TC212E686◎025□	17.0	6.0	0.3
100.0	D	TC212D107◎025□	25.0	10.0	0.7
35V, +85°C (20V @ +125°C)					
0.33	A	TC212A334◎035□	0.5	4.0	12.0
0.47	A	TC212A474◎035□	0.5	4.0	10.0
0.47	B	TC212B474◎035□	0.5	4.0	6.0
0.68	A	TC212A684◎035□	0.5	4.0	6.0
0.68	B	TC212B684◎035□	0.5	4.0	6.0
1.0	A	TC212A105◎035□	0.5	4.0	8.0
1.0	B	TC212B105◎035□	0.5	4.0	2.0
1.5	B	TC212B155◎035□	0.5	6.0	4.0
1.5	C	TC212C155◎035□	0.5	6.0	3.0
2.2	A	TC212A225◎035□	0.8	6.0	3.0
2.2	B	TC212B225◎035□	0.8	6.0	3.0
2.2	C	TC212C225◎035□	0.8	6.0	2.5

Capacitance (μF)	Case	Part Number	DCL (μA) +25°C Max.	DF (%) +25°C 120Hz Max.	ESR(Ω) +25°C 100kHz Max.
3.3	B	TC212B335◎035□	1.2	6.0	3.0
3.3	C	TC212C335◎035□	1.2	6.0	2.0
4.7	B	TC212B475◎035□	1.6	6.0	2.0
4.7	C	TC212C475◎035□	1.6	6.0	2.0
4.7	D	TC212D475◎035□	1.6	6.0	1.0
6.8	C	TC212C685◎035□	2.4	6.0	1.2
6.8	D	TC212D685◎035□	2.4	6.0	0.8
10.0	C	TC212C106◎035□	3.5	6.0	1.5
10.0	D	TC212D106◎035□	3.5	6.0	0.6
10.0	E	TC212E106◎035□	3.5	6.0	0.6
15.0	D	TC212D156◎035□	5.25	6.0	0.8
15.0	E	TC212E156◎035□	5.3	6.0	0.6
22.0	D	TC212D226◎035□	7.7	6.0	0.6
22.0	E	TC212E226◎035□	7.7	6.0	0.3
33.0	E	TC212E336◎035□	11.0	6.0	0.5
47.0	E	TC212E476◎035□	16.5	8.0	0.5
50V, +85°C (32V @ +125°C)					
0.15	B	TC212B154◎050□	0.5	4.0	12.0
0.22	A	TC212A224◎050□	0.5	4.0	15.0
0.22	B	TC212B224◎050□	0.5	4.0	12.0
0.33	A	TC212A334◎050□	0.5	4.0	12.0
0.33	B	TC212B334◎050□	0.5	4.0	8.0
0.47	A	TC212A474◎050□	0.5	4.0	8.0
0.47	B	TC212B474◎050□	0.5	4.0	6.0
0.47	C	TC212C474◎050□	0.5	4.0	5.0
0.68	A	TC212A684◎050□	0.5	4.0	8.0
0.68	B	TC212B684◎050□	0.5	4.0	5.0
0.68	C	TC212C684◎050□	0.5	4.0	4.0
1.0	B	TC212B105◎050□	0.5	6.0	4.0
1.0	C	TC212C105◎050□	0.5	4.0	3.5
1.5	B	TC212B155◎050□	0.8	6.0	3.5
1.5	C	TC212C155◎050□	0.8	6.0	2.5
2.2	B	TC212B225◎050□	1.1	6.0	1.5
2.2	C	TC212C225◎050□	1.1	6.0	3.0
2.2	D	TC212D225◎050□	1.1	6.0	2.0
3.3	B	TC212B335◎050□	1.7	6.0	3.0
3.3	C	TC212C335◎050□	1.7	6.0	2.0
3.3	D	TC212D335◎050□	1.7	6.0	1.0
4.7	D	TC212D475◎050□	2.4	6.0	0.8
6.8	D	TC212D685◎050□	3.4	6.0	0.7
10.0	D	TC212D106◎050□	5.0	6.0	0.7
10.0	E	TC212E106◎050□	5.0	6.0	0.4
15.0	E	TC212E156◎050□	7.5	6.0	0.4

SPECIFICATIONS

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ATC214 TYPE

Capacitance (μF)	Case	Part Number	DCL (μA) +25°C Max.	DF (%) +25°C 120Hz Max.	ESR(Ω) +25°C 100kHz Max.	Capacitance (μF)	Case	Part Number	DCL (μA) +25°C Max.	DF (%) +25°C 120Hz Max.	ESR(Ω) +25°C 100kHz Max.
4V, +85°C (2.5V @ +125°C)						0.68	A	ATC214A684◎020□	0.5	4.0	8.0
2.2	A	ATC214A225◎004□	0.5	6.0	6.0	1.0	B	ATC214B105◎020□	0.5	4.0	6.0
3.3	A	ATC214A335◎004□	0.5	6.0	6.0	1.5	B	ATC214B155◎020□	0.5	6.0	1.5
4.7	B	ATC214B475◎004□	0.5	6.0	6.0	2.2	B	ATC214B225◎020□	0.5	6.0	3.0
6.8	B	ATC214B685◎004□	0.5	6.0	6.0	3.3	C	ATC214C335◎020	0.7	6.0	1.5
10.0	B	ATC214B106◎004□	0.5	6.0	1.5	4.7	C	ATC214C475◎020	0.9	6.0	1.2
15.0	C	ATC214C156◎004□	0.5	6.0	1.5	6.8	D	ATC214D685◎020	1.4	6.0	0.8
22.0	C	ATC214C226◎004□	0.6	6.0	1.0	10.0	D	ATC214D106◎020	2.0	6.0	0.8
33.0	D	ATC214D336◎004□	1.3	6.0	1.0	15.0	D	ATC214D156◎020	3.0	6.0	0.8
47.0	D	ATC214D476◎004□	1.9	6.0	1.0	22.0	D	ATC214D226◎020	4.4	6.0	0.5
68.0	D	ATC214D686◎004□	2.7	6.0	0.5	25V, +85°C (16V @ +125°C)					
100	D	ATC214D107◎004□	4.0	8.0	0.3	0.33	A	ATC214A334◎025□	0.5	4.0	12.0
6.3V, +85°C (4.0V @ +125°C)						0.47	A	ATC214A474◎025□	0.5	4.0	10.0
1.5	A	ATC214A155◎006□	0.5	6.0	6.0	0.68	B	ATC214B684◎025□	0.5	4.0	6.0
2.2	A	ATC214A225◎006□	0.5	6.0	6.0	1.0	B	ATC214B105◎025□	0.5	4.0	4.0
3.3	B	ATC214B335◎006□	0.5	6.0	8.0	1.5	B	ATC214B155◎025□	0.5	6.0	3.5
4.7	B	ATC214B475◎006□	0.5	6.0	10.0	2.2	C	ATC214C225◎025	0.6	6.0	2.0
6.8	B	ATC214B685◎006□	0.5	6.0	1.2	3.3	C	ATC214C335◎025	0.8	6.0	2.0
10.0	C	ATC214C106◎006□	0.6	6.0	0.6	4.7	D	ATC214D475◎025	1.2	6.0	1.5
15.0	C	ATC214C156◎006□	0.9	6.0	0.6	6.8	D	ATC214D685◎025	1.7	6.0	1.0
22.0	D	ATC214D226◎006□	1.3	6.0	0.5	10.0	D	ATC214D106◎025	2.5	6.0	0.8
33.0	D	ATC214D336◎006□	2.1	6.0	0.3	15.0	D	ATC214D156◎025	3.8	6.0	0.8
47.0	D	ATC214D476◎006□	3.0	6.0	0.3	35V, +85°C (20V @ +125°C)					
68.0	D	ATC214D686◎006□	4.3	6.0	0.2	0.33	A	ATC214A334◎035□	0.5	4.0	12.0
10V, +85°C (6.3V @ +125°C)						0.47	B	ATC214B474◎035□	0.5	4.0	2.5
1.0	A	ATC214A105◎010□	0.5	4.0	6.0	0.68	B	ATC214B684◎035□	0.5	4.0	2.5
1.5	A	ATC214A155◎010□	0.5	6.0	6.0	1.0	B	ATC214B105◎035□	0.5	4.0	2.0
2.2	B	ATC214B225◎010□	0.5	6.0	3.0	1.5	B	ATC214B155◎035□	0.5	4.0	2.0
3.3	B	ATC214B335◎010□	0.5	6.0	3.0	1.5	C	ATC214C155◎035	0.5	6.0	2.5
4.7	B	ATC214B475◎010□	0.5	6.0	1.5	2.2	C	ATC214C225◎035	0.8	6.0	1.5
6.8	C	ATC214C685◎010□	0.7	6.0	0.8	3.3	D	ATC214D335◎035	1.2	6.0	1.5
10.0	C	ATC214C106◎010□	1.0	6.0	0.6	4.7	D	ATC214D475◎035	1.6	6.0	1.0
15.0	C	ATC214C156◎010□	1.5	6.0	0.5	6.8	D	ATC214D685◎035	2.4	6.0	0.8
22.0	D	ATC214D226◎010□	2.2	6.0	0.4	10.0	D	ATC214D106◎035	3.5	6.0	0.6
33.0	D	ATC214D336◎010□	3.3	6.0	0.25	50V, +85°C (32V @ +125°C)					
47.0	D	ATC214D476◎010□	4.7	6.0	0.22	0.15	B	ATC214B154◎050□	0.5	4.0	12.0
16V, +85°C (10V @ +125°C)						0.22	B	ATC214B224◎050□	0.5	4.0	12.0
0.68	A	ATC214A684◎016□	0.5	6.0	10.0	0.33	B	ATC214B334◎050□	0.5	4.0	8.0
1.0	A	ATC214A105◎016□	0.5	4.0	6.0	0.47	C	ATC214C474◎050	0.5	4.0	5.0
1.5	B	ATC214B155◎016□	0.5	6.0	4.0	0.68	C	ATC214C684◎050	0.5	4.0	4.0
2.2	B	ATC214B225◎016□	0.5	6.0	3.0	1.0	C	ATC214C105◎050	0.5	4.0	3.5
3.3	B	ATC214B335◎016□	0.5	6.0	2.5	1.5	D	ATC214D155◎050	0.8	6.0	2.5
4.7	C	ATC214C475◎016□	0.8	6.0	1.5	2.2	D	ATC214D225◎050	1.1	6.0	2.0
6.8	C	ATC214C685◎016□	1.1	6.0	1.0	3.3	D	ATC214D335◎050	1.7	6.0	1.0
10.0	C	ATC214C106◎016□	1.6	6.0	1.5	4.7	D	ATC214D475◎050	2.4	6.0	0.8
15.0	D	ATC214D156◎016□	2.4	6.0	0.5	20V, +85°C (13V @ +125°C)					
22.0	D	ATC214D226◎016□	3.5	6.0	0.25	0.47	A	ATC214A474◎020□	0.5	4.0	10.0
33.0	D	ATC214D336◎016□	5.3	6.0	0.25						

※◎:Capacitance tolerance code (K=±10%, M=±20%); □: Internal code (B=Black molded case, Laser marking; Y=Yellow molded case, Laser marking).