

# Chip Solid MnO<sub>2</sub> 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

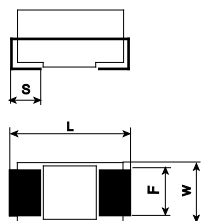
- Communication
- Consumer electronics
- Instruments
- Medical electronics

## PRODUCT IDENTIFICATION

<u>TC</u>	<u>212</u>	<u>B</u>	<u>105</u>	<u>M</u>	<u>035</u>	<u>B</u>																																			
①	②	③	④	⑤	⑥	⑦																																			
①			②			③																																			
<table border="1"> <tr><th colspan="2">Type</th></tr> <tr><td>TC</td><td>Solid Tantalum Chip Capacitor</td></tr> </table>		Type		TC	Solid Tantalum Chip Capacitor	<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> </table>		Series		211	Industrial	212	Low ESR	<table border="1"> <tr><th colspan="2">External Dimensions (LxW) (mm)</th></tr> <tr><td>A</td><td>3.2x1.6</td></tr> <tr><td>B</td><td>3.5x2.8</td></tr> <tr><td>C</td><td>6.0x3.2</td></tr> <tr><td>D/E</td><td>7.3x4.3</td></tr> </table>			External Dimensions (LxW) (mm)		A	3.2x1.6	B	3.5x2.8	C	6.0x3.2	D/E	7.3x4.3															
Type																																									
TC	Solid Tantalum Chip Capacitor																																								
Series																																									
211	Industrial																																								
212	Low ESR																																								
External Dimensions (LxW) (mm)																																									
A	3.2x1.6																																								
B	3.5x2.8																																								
C	6.0x3.2																																								
D/E	7.3x4.3																																								
④		⑥		⑦																																					
<table border="1"> <tr><th colspan="2">Nominal Capacitance</th></tr> <tr><th>Example</th><th>Nominal Value</th></tr> <tr><td>105</td><td>1.0μF</td></tr> <tr><td>106</td><td>10μF</td></tr> </table>		Nominal Capacitance		Example	Nominal Value	105	1.0μF	106	10μF	<table border="1"> <tr><th colspan="2">Rated DC Voltage</th></tr> <tr><td>002</td><td>2.5Vdc</td></tr> <tr><td>004</td><td>4Vdc</td></tr> <tr><td>006</td><td>6.3Vdc</td></tr> <tr><td>010</td><td>10Vdc</td></tr> <tr><td>016</td><td>16Vdc</td></tr> <tr><td>020</td><td>20Vdc</td></tr> <tr><td>025</td><td>25Vdc</td></tr> <tr><td>035</td><td>35Vdc</td></tr> <tr><td>050</td><td>50Vdc</td></tr> </table>			Rated DC Voltage		002	2.5Vdc	004	4Vdc	006	6.3Vdc	010	10Vdc	016	16Vdc	020	20Vdc	025	25Vdc	035	35Vdc	050	50Vdc	<table border="1"> <tr><th colspan="2">Internal Code</th></tr> <tr><td>B</td><td>Black Molded Case, Laser Marking</td></tr> <tr><td>Y</td><td>Yellow Molded Case, Laser Marking</td></tr> </table>			Internal Code		B	Black Molded Case, Laser Marking	Y	Yellow Molded Case, Laser Marking
Nominal Capacitance																																									
Example	Nominal Value																																								
105	1.0μF																																								
106	10μF																																								
Rated DC Voltage																																									
002	2.5Vdc																																								
004	4Vdc																																								
006	6.3Vdc																																								
010	10Vdc																																								
016	16Vdc																																								
020	20Vdc																																								
025	25Vdc																																								
035	35Vdc																																								
050	50Vdc																																								
Internal Code																																									
B	Black Molded Case, Laser Marking																																								
Y	Yellow Molded Case, Laser Marking																																								
⑤																																									
<table border="1"> <tr><th colspan="2">Capacitance Tolerance</th></tr> <tr><td>K</td><td>±10%</td></tr> <tr><td>M</td><td>±20%</td></tr> </table>		Capacitance Tolerance		K	±10%	M	±20%																																		
Capacitance Tolerance																																									
K	±10%																																								
M	±20%																																								

## 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]

## TECHNICAL SPECIFICATION

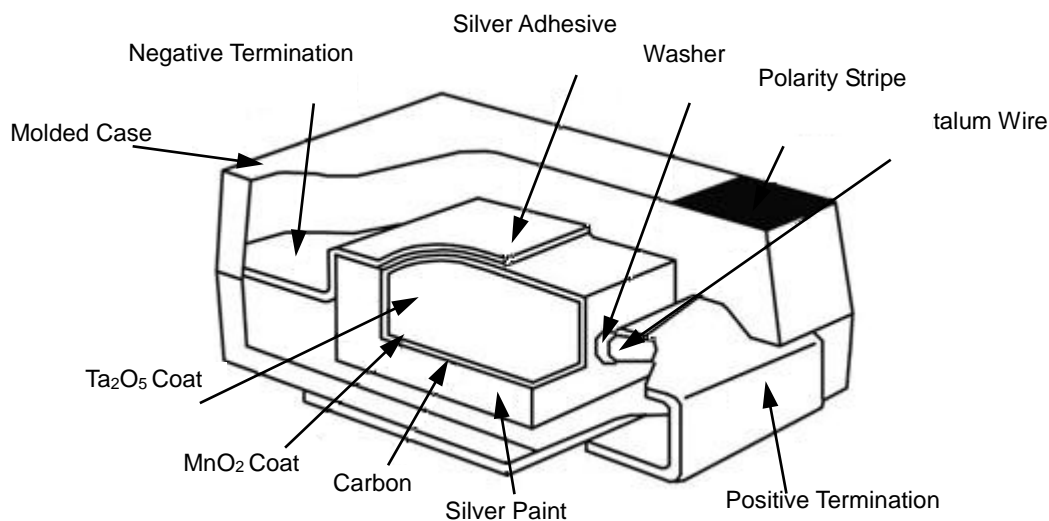
Item	SPEC									Test Condition
Operating Temp	-55°C~+125°C									
C <sub>R</sub> Range	0.10μF~680μF									25°C, 120Hz
C <sub>R</sub> Tolerance	±10% or ±20%									25°C, 120Hz
Rated Voltage (V <sub>R</sub> )	2.5V	4V	6.3V	10V	16V	20V	25V	35V	50V	85°C
Category Voltage (V <sub>C</sub> )	1.6V	2.5V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

## STANDARD C-V VALUE BY CASE CODE

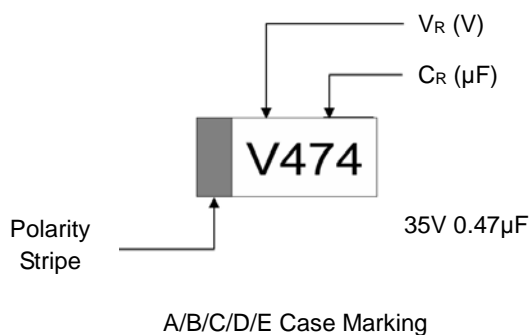
Rated Voltage (VR)	2.5	4	6.3	10	16	20	25	35	50	
Voltage Code	e	G	J	A	C	D	E	V	T	
CR (μF)	C Code	Case Code								
0.15	154								B	
0.22	224								B/A	
0.33	334						A	A	B/A	
0.47	474						A	B/A	C/B/A	
0.68	684					A	A	B/A	C/B/A	
1.0	105		A	A	A	A	B/A	B/A	C/B	
1.5	155		A	A	A	B/A	B/A	C/B	C/B	
2.2	225	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	
15	156	B/A	B/A	B/A	C/B/A	C/B	D/C	D/C/B	E/D	
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	E		
150	157	B	D/C/B	D/C/B	E/D/C	E/D	E			
220	227	B	D/C/B	E/D/C	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



## MARKING



### Rated Voltage Code

Rated Voltage( V <sub>R</sub> )	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.
<b>2.5V, +85°C (1.6V @ +125°C)</b>					
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
<b>4V, +85°C (2.5V @ +125°C)</b>					
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
<b>6.3V, +85°C (4.0V @ +125°C)</b>					
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◎006Y	39.9	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
<b>10V, +85°C (6.3V @ +125°C)</b>					
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

# SPECIFICATIONS

## TC211 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.
22.0	A	TC211A226◎010□	2.2	8.0	4.0	47.0	C	TC211C476◎016□	7.5	6.0	1.2
22.0	B	TC211B226◎010□	2.2	6.0	3.0	47.0	D	TC211D476◎016□	7.5	6.0	0.8
22.0	C	TC211C226◎010□	2.2	6.0	1.8	68.0	D	TC211D686◎016□	10.8	6.0	0.8
33.0	A	TC211A336◎010□	3.3	15.0	6.0	100.0	C	TC211C107◎016□	16.0	10.0	1.0
33.0	B	TC211B336◎010□	3.3	6.0	3.5	100.0	D	TC211D107◎016□	16.0	8.0	0.7
33.0	C	TC211C336◎010□	3.3	6.0	1.6	150.0	D	TC211D157◎016□	24.0	12.0	0.7
33.0	D	TC211D336◎010□	3.3	6.0	0.8	150.0	E	TC211E157◎016□	24.0	8.0	0.5
47.0	A	TC211A476◎010□	4.7	15.0	4.0	220.0	D	TC211D227◎016□	35.2	15.0	0.9
47.0	B	TC211B476◎010□	4.7	6.0	1.0	220.0	E	TC211E227◎016□	35.2	10.0	0.5
47.0	C	TC211C476◎010□	4.7	6.0	1.2	330.0	E	TC211E337◎016□	52.8	10.0	0.5
47.0	D	TC211D476◎010□	4.7	6.0	0.8	20V, +85°C (13V @ +125°C)					
68.0	B	TC211B686◎010□	6.8	10.0	3.0	0.68	A	TC211A684◎020□	0.5	4.0	12.0
68.0	C	TC211C686◎010□	6.8	6.0	1.2	1.0	A	TC211A105◎020□	0.5	4.0	10.0
68.0	D	TC211D686◎010□	6.8	6.0	0.8	1.5	A	TC211A155◎020□	0.5	6.0	8.0
100.0	B	TC211B107◎010□	10.0	15.0	1.5	1.5	B	TC211B155◎020□	0.5	6.0	5.0
100.0	C	TC211C107◎010□	10.0	8.0	1.2	2.2	A	TC211A225◎020□	0.5	6.0	7.0
100.0	D	TC211D107◎010□	10.0	8.0	0.7	2.2	B	TC211B225◎020□	0.5	6.0	3.5
150.0	C	TC211C157◎010□	15.0	10.0	0.9	3.3	A	TC211A335◎020□	0.7	6.0	7.0
150.0	D	TC211D157◎010□	15.0	8.0	0.7	3.3	B	TC211B335◎020□	0.7	6.0	3.5
150.0	E	TC211E157◎010□	15.0	8.0	0.5	4.7	A	TC211A475◎020□	0.9	6.0	4.0
220.0	D	TC211D227◎010□	22.0	8.0	0.5	4.7	B	TC211B475◎020□	0.9	6.0	3.5
220.0	E	TC211E227◎010□	22.0	8.0	0.5	4.7	C	TC211C475◎020□	0.9	6.0	2.4
330.0	D	TC211D337◎010□	33.0	10.0	0.5	6.8	A	TC211A685◎020□	1.4	8.0	6.0
330.0	E	TC211E337◎010□	33.0	10.0	0.5	6.8	B	TC211B685◎020□	1.4	6.0	3.5
470.0	E	TC211E477◎010□	47.0	10.0	0.5	6.8	C	TC211C685◎020□	1.4	6.0	2.0
16V, +85°C (10V @ +125°C)						6.8	D	TC211D685◎020□	1.4	6.0	1.9
1.0	A	TC211A105◎016□	0.5	4.0	10.0	10.0	B	TC211B106◎020□	2.0	6.0	3.0
1.5	A	TC211A155◎016□	0.5	6.0	8.0	10.0	C	TC211C106◎020□	2.0	6.0	1.8
2.2	A	TC211A225◎016□	0.5	6.0	6.0	10.0	D	TC211D106◎020□	2.0	6.0	1.0
2.2	B	TC211B225◎016□	0.5	6.0	4.0	15.0	C	TC211C156◎020□	3.0	6.0	1.7
3.3	A	TC211A335◎016□	0.52	6.0	6.0	15.0	D	TC211D156◎020□	3.0	6.0	1.0
3.3	B	TC211B335◎016□	0.5	6.0	3.5	22.0	B	TC211B226◎020□	4.4	8.0	4.0
4.7	A	TC211A475◎016□	0.8	6.0	6.0	22.0	C	TC211C226◎020□	4.4	6.0	1.2
4.7	B	TC211B475◎016□	0.8	6.0	3.5	22.0	D	TC211D226◎020□	4.4	6.0	0.8
4.7	C	TC211C475◎016□	0.8	6.0	2.4	33.0	C	TC211C336◎020□	6.6	6.0	1.2
6.8	A	TC211A685◎016□	1.1	6.0	7.0	33.0	D	TC211D336◎020□	6.6	6.0	0.8
6.8	B	TC211B685◎016□	1.1	6.0	3.5	47.0	C	TC211C476◎020□	9.4	10.0	1.0
6.8	C	TC211C685◎016□	1.1	6.0	2.0	47.0	D	TC211D476◎020□	9.4	6.0	0.8
10.0	A	TC211A106◎016□	1.6	8.0	7.0	47.0	E	TC211E476◎020□	9.4	6.0	0.8
10.0	B	TC211B106◎016□	1.6	6.0	2.8	68.0	D	TC211D686◎020□	13.6	6.0	0.8
10.0	C	TC211C106◎016□	1.6	6.0	1.8	68.0	E	TC211E686◎020□	13.6	6.0	0.8
15.0	B	TC211B156◎016□	2.4	6.0	3.0	100.0	D	TC211D107◎020□	20.0	8.0	0.6
15.0	C	TC211C156◎016□	2.4	6.0	1.8	100.0	E	TC211E107◎020□	20.0	8.0	0.5
22.0	A	TC211A226◎016□	3.5	15.0	4.0	150.0	E	TC211E157◎020□	30.0	8.0	0.5
22.0	B	TC211B226◎016□	3.5	8.0	2.2	25V, +85°C (16V @ +125°C)					
22.0	C	TC211C226◎016□	3.5	6.0	1.6	0.33	A	TC211A334◎025□	0.5	4.0	15.0
22.0	D	TC211D226◎016□	3.5	6.0	0.8	0.47	A	TC211A474◎025□	0.5	4.0	14.0
33.0	B	TC211B336◎016□	5.3	8.0	2.0	0.68	A	TC211A684◎025□	0.5	4.0	10.0
33.0	C	TC211C336◎016□	5.3	6.0	1.2	1.0	A	TC211A105◎025□	0.5	4.0	8.0
33.0	D	TC211D336◎016□	5.3	6.0	0.8	1.0	B	TC211B105◎025□	0.5	4.0	5.0
47.0	B	TC211B476◎016□	7.5	18.0	1.0	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	E	TC211E107◎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
3.3	C	TC211C335◎035□	1.2	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.
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

## 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□	39.9	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

## TC212 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.
15.0	B	TC212B156◎010□	1.5	6.0	0.7	33.0	D	TC212D336◎016□	5.3	6.0	0.5
15.0	C	TC212C156◎010□	1.5	6.0	0.5	47.0	B	TC212B476◎016□	7.5	18.0	0.7
22.0	A	TC212A226◎010□	2.2	8.0	2.5	47.0	C	TC212C476◎016□	7.5	6.0	0.8
22.0	B	TC212B226◎010□	2.2	6.0	1.0	47.0	D	TC212D476◎016□	7.5	6.0	0.5
22.0	C	TC212C226◎010□	2.2	6.0	0.4	68.0	D	TC212D686◎016□	10.8	6.0	0.5
33.0	A	TC212A336◎010□	3.3	15.0	4.0	100.0	C	TC212C107◎016□	16.0	10.0	0.7
33.0	B	TC212B336◎010□	3.3	6.0	1.0	100.0	D	TC212D107◎016□	16.0	8.0	0.5
33.0	C	TC212C336◎010□	3.3	6.0	0.4	150.0	D	TC212D157◎016□	24.0	12.0	0.4
33.0	D	TC212D336◎010□	3.3	6.0	0.25	150.0	E	TC212E157◎016□	24.0	8.0	0.15
47.0	A	TC212A476◎010□	4.7	15.0	1.5	220.0	D	TC212D227◎016□	35.2	15.0	0.6
47.0	B	TC212B476◎010□	4.7	6.0	0.65	220.0	E	TC212E227◎016□	35.2	10.0	0.2
47.0	C	TC212C476◎010□	4.7	6.0	0.3	330.0	E	TC212E337◎016□	52.8	10.0	0.2
47.0	D	TC212D476◎010□	4.7	6.0	0.22	20V, +85°C (13V @ +125°C)					
68.0	B	TC212B686◎010□	6.8	10.0	1.5	0.68	A	TC212A684◎020□	0.5	4.0	10.0
68.0	C	TC212C686◎010□	6.8	6.0	0.3	1.0	A	TC212A105◎020□	0.5	4.0	8.0
68.0	D	TC212D686◎010□	6.8	6.0	0.2	1.5	A	TC212A155◎020□	0.5	6.0	4.5
100.0	B	TC212B107◎010□	10.0	15.0	1.0	1.5	B	TC212B155◎020□	0.5	6.0	1.5
100.0	C	TC212C107◎010□	10.0	8.0	0.3	2.2	A	TC212A225◎020□	0.5	6.0	4.0
100.0	D	TC212D107◎010□	10.0	8.0	0.15	2.2	B	TC212B225◎020□	0.5	6.0	3.0
150.0	C	TC212C157◎010□	15.0	10.0	0.7	3.3	A	TC212A335◎020□	0.7	6.0	6.0
150.0	D	TC212D157◎010□	15.0	8.0	0.15	3.3	B	TC212B335◎020□	0.7	6.0	2.5
150.0	E	TC212E157◎010□	15.0	8.0	0.15	4.7	A	TC212A475◎020□	0.9	6.0	3.5
220.0	D	TC212D227◎010□	22.0	8.0	0.15	4.7	B	TC212B475◎020□	0.9	6.0	2.5
220.0	E	TC212E227◎010□	22.0	8.0	0.15	4.7	C	TC212C475◎020□	0.9	6.0	1.2
330.0	D	TC212D337◎010□	33.0	10.0	0.15	6.8	A	TC212A685◎020□	1.4	8.0	3.0
330.0	E	TC212E337◎010□	33.0	10.0	0.2	6.8	B	TC212B685◎020□	1.4	6.0	2.5
470.0	E	TC212E477◎010□	47.0	10.0	0.2	6.8	C	TC212C685◎020□	1.4	6.0	1.2
16V, +85°C (10V @ +125°C)						6.8	D	TC212D685◎020□	1.4	6.0	0.8
1.0	A	TC212A105◎016□	0.5	4.0	8.0	10.0	B	TC212B106◎020□	2.0	6.0	2.0
1.5	A	TC212A155◎016□	0.5	6.0	6.0	10.0	C	TC212C106◎020□	2.0	6.0	1.2
2.2	A	TC212A225◎016□	0.5	6.0	4.0	10.0	D	TC212D106◎020□	2.0	6.0	0.8
2.2	B	TC212B225◎016□	0.5	6.0	3.0	15.0	C	TC212C156◎020□	3.0	6.0	1.2
3.3	A	TC212A335◎016□	0.5	6.0	5.0	15.0	D	TC212D156◎020□	3.0	6.0	0.8
3.3	B	TC212B335◎016□	0.5	6.0	2.5	22.0	B	TC212B226◎020□	4.4	8.0	3.0
4.7	A	TC212A475◎016□	0.8	6.0	5.0	22.0	C	TC212C226◎020□	4.4	6.0	0.4
4.7	B	TC212B475◎016□	0.8	6.0	2.5	22.0	D	TC212D226◎020□	4.4	6.0	0.5
4.7	C	TC212C475◎016□	0.8	6.0	1.5	33.0	C	TC212C336◎020□	6.6	6.0	0.6
6.8	A	TC212A685◎016□	1.1	6.0	5.0	33.0	D	TC212D336◎020□	6.6	6.0	0.4
6.8	B	TC212B685◎016□	1.1	6.0	2.5	47.0	C	TC212C476◎020□	9.4	10.0	0.8
6.8	C	TC212C685◎016□	1.1	6.0	1.0	47.0	D	TC212D476◎020□	9.4	6.0	0.6
10.0	A	TC212A106◎016□	1.6	8.0	3.0	47.0	E	TC212E476◎020□	9.4	6.0	0.3
10.0	B	TC212B106◎016□	1.6	6.0	0.8	68.0	D	TC212D686◎020□	13.6	6.0	0.4
10.0	C	TC212C106◎016□	1.6	6.0	1.5	68.0	E	TC212E686◎020□	13.6	6.0	0.3
15.0	B	TC212B156◎016□	2.4	6.0	2.0	100.0	D	TC212D107◎020□	20.0	8.0	0.2
15.0	C	TC212C156◎016□	2.4	6.0	1.2	100.0	E	TC212E107◎020□	20.0	8.0	0.2
22.0	A	TC212A226◎016□	3.5	15.0	2.0	150.0	E	TC212E157◎020□	30.0	8.0	0.2
22.0	B	TC212B226◎016□	3.5	8.0	1.5	25V, +85°C (16V @ +125°C)					
22.0	C	TC212C226◎016□	3.5	6.0	1.2	0.33	A	TC212A334◎025□	0.5	4.0	12.0
22.0	D	TC212D226◎016□	3.5	6.0	0.6	0.47	A	TC212A474◎025□	0.5	4.0	10.0
33.0	B	TC212B336◎016□	5.3	8.0	1.0	0.68	A	TC212A684◎025□	0.5	4.0	6.0
33.0	C	TC212C336◎016□	5.3	6.0	1.0	1.0	A	TC212A105◎025□	0.5	4.0	6.0



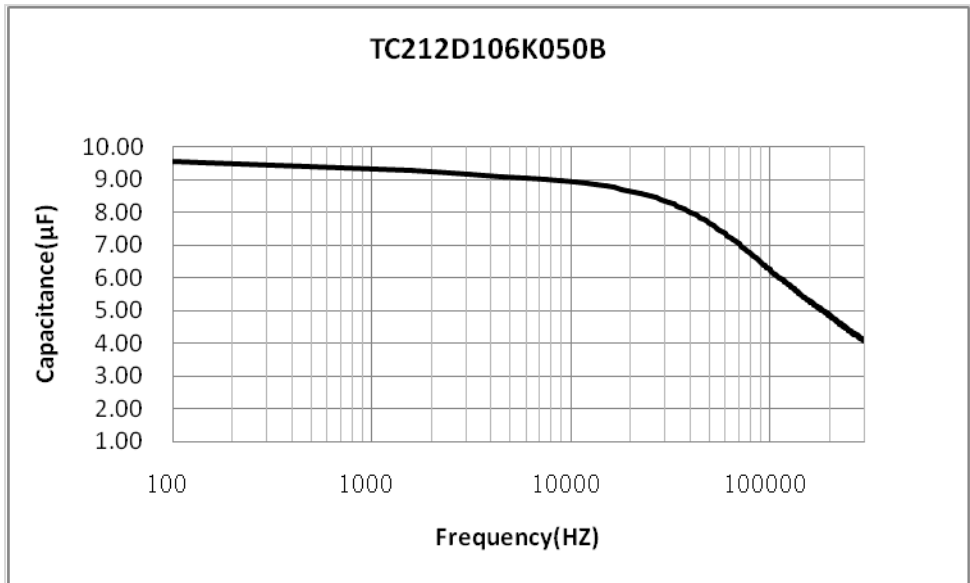
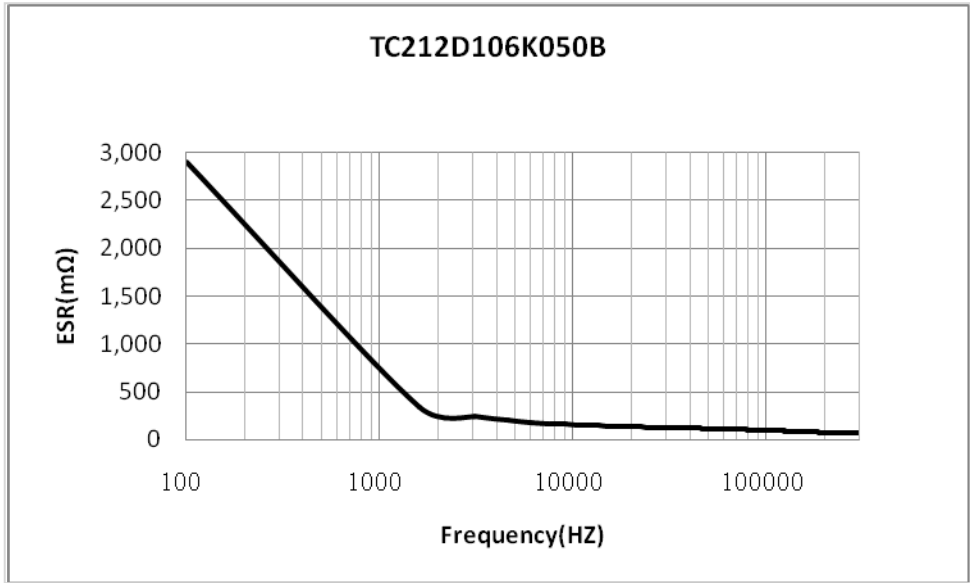
# SPECIFICATIONS

## TC212 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.
1.0	B	TC212B105◎025□	0.5	4.0	4.0	3.3	C	TC212C335◎035□	1.2	6.0	2.0
1.5	A	TC212A155◎025□	0.5	6.0	5.0	4.7	B	TC212B475◎035□	1.6	6.0	2.0
1.5	B	TC212B155◎025□	0.5	6.0	3.5	4.7	C	TC212C475◎035□	1.6	6.0	2.0
2.2	A	TC212A225◎025□	0.6	6.0	4.0	4.7	D	TC212D475◎035□	1.6	6.0	1.0
2.2	B	TC212B225◎025□	0.6	6.0	3.0	6.8	C	TC212C685◎035□	2.4	6.0	1.2
2.2	C	TC212C225◎025□	0.6	6.0	2.0	6.8	D	TC212D685◎035□	2.4	6.0	0.8
3.3	A	TC212A335◎025□	0.8	6.0	3.0	10.0	C	TC212C106◎035□	3.5	6.0	1.5
3.3	B	TC212B335◎025□	0.8	6.0	2.5	10.0	D	TC212D106◎035□	3.5	6.0	0.6
3.3	C	TC212C335◎025□	0.8	6.0	2.0	10.0	E	TC212E106◎035□	3.5	6.0	0.6
4.7	A	TC212A475◎025□	1.2	8.0	3.0	15.0	D	TC212D156◎035□	5.25	6.0	0.8
4.7	B	TC212B475◎025□	1.2	6.0	1.0	15.0	E	TC212E156◎035□	5.3	6.0	0.6
4.7	C	TC212C475◎025□	1.2	6.0	0.6	22.0	D	TC212D226◎035□	7.7	6.0	0.6
6.8	B	TC212B685◎025□	1.7	6.0	1.2	22.0	E	TC212E226◎035□	7.7	6.0	0.3
6.8	C	TC212C685◎025□	1.7	6.0	0.8	33.0	E	TC212E336◎035□	11.0	6.0	0.5
6.8	D	TC212D685◎025□	1.7	6.0	0.5	47.0	E	TC212E476◎035□	16.5	8.0	0.5
10.0	B	TC212B106◎025□	2.5	6.0	2.0	50V, +85°C (32V @ +125°C)					
10.0	C	TC212C106◎025□	2.5	6.0	1.4	0.15	B	TC212B154◎050□	0.5	4.0	12.0
10.0	D	TC212D106◎025□	2.5	6.0	0.8	0.22	A	TC212A224◎050□	0.5	4.0	15.0
15.0	B	TC212B156◎025□	3.8	8.0	3.0	0.22	B	TC212B224◎050□	0.5	4.0	12.0
15.0	C	TC212C156◎025□	3.8	6.0	1.2	0.33	A	TC212A334◎050□	0.5	4.0	12.0
15.0	D	TC212D156◎025□	3.8	6.0	0.8	0.33	B	TC212B334◎050□	0.5	4.0	8.0
22.0	C	TC212C226◎025□	5.5	6.0	1.0	0.47	A	TC212A474◎050□	0.5	4.0	8.0
22.0	D	TC212D226◎025□	5.5	6.0	0.6	0.47	B	TC212B474◎050□	0.5	4.0	6.0
33.0	D	TC212D336◎025□	8.3	6.0	0.6	0.47	C	TC212C474◎050□	0.5	4.0	5.0
33.0	E	TC212E336◎025□	8.3	6.0	0.5	0.68	A	TC212A684◎050□	0.5	4.0	8.0
47.0	D	TC212D476◎025□	11.7	6.0	0.4	0.68	B	TC212B684◎050□	0.5	4.0	5.0
47.0	E	TC212E476◎025□	11.7	6.0	0.4	0.68	C	TC212C684◎050□	0.5	4.0	4.0
68.0	E	TC212E686◎025□	17.0	6.0	0.3	1.0	B	TC212B105◎050□	0.5	6.0	4.0
100.0	E	TC212E107◎025□	25.0	10.0	0.7	1.0	C	TC212C105◎050□	0.5	4.0	3.5
35V, +85°C (20V @ +125°C)						1.5	B	TC212B155◎050□	0.8	6.0	3.5
0.33	A	TC212A334◎035□	0.5	4.0	12.0	1.5	C	TC212C155◎050□	0.8	6.0	2.5
0.47	A	TC212A474◎035□	0.5	4.0	10.0	2.2	B	TC212B225◎050□	1.1	6.0	1.5
0.47	B	TC212B474◎035□	0.5	4.0	6.0	2.2	C	TC212C225◎050□	1.1	6.0	3.0
0.68	A	TC212A684◎035□	0.5	4.0	6.0	2.2	D	TC212D225◎050□	1.1	6.0	2.0
0.68	B	TC212B684◎035□	0.5	4.0	6.0	3.3	B	TC212B335◎050□	1.7	6.0	3.0
1.0	A	TC212A105◎035□	0.5	4.0	8.0	3.3	C	TC212C335◎050□	1.7	6.0	2.0
1.0	B	TC212B105◎035□	0.5	4.0	2.0	3.3	D	TC212D335◎050□	1.7	6.0	1.0
1.5	B	TC212B155◎035□	0.5	6.0	4.0	4.7	D	TC212D475◎050□	2.4	6.0	0.8
1.5	C	TC212C155◎035□	0.5	6.0	3.0	6.8	D	TC212D685◎050□	3.4	6.0	0.7
2.2	A	TC212A225◎035□	0.8	6.0	3.0	10.0	D	TC212D106◎050□	5.0	6.0	0.7
2.2	B	TC212B225◎035□	0.8	6.0	3.0	10.0	E	TC212E106◎050□	5.0	6.0	0.4
2.2	C	TC212C225◎035□	0.8	6.0	2.5	15.0	E	TC212E156◎050□	7.5	6.0	0.4
3.3	B	TC212B335◎035□	1.2	6.0	3.0						

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

# TYPICAL FREQUENCY CHARACTERISTICS



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Tantalum Capacitors - Solid SMD category:](#)*

*Click to view products by [Sunlord manufacturer:](#)*

Other Similar products are found below :

[CWR09DC226KBB-TR25](#) [CWR09FC476KB-TR25](#) [CWR09HC106KR-TR25](#) [CWR09HK106KB-TR25](#) [CWR09KC156KP](#)  
[CWR09MC335KCB](#) [CWR09MC335KCB\TR](#) [CWR09NC335MM](#) [CWR11HC105KB](#) [B45197-A2157-M509](#) [B45197A5226M409](#) [NTC-](#)  
[T476K10TRDF](#) [NTP337M6.3TRD\(18\)F](#) [CWR06KC106KP](#) [CWR09DC476KC-TR25](#) [CWR09FC105KB-TR25](#) [CWR09HC226KB-TR25](#)  
[CWR09JC685KCA-TR25](#) [CWR09JK105KB-TR25](#) [CWR09JK156MM](#) [CWR09KB106KCA](#) [CWR09KC106KBC-TR25](#)  
[CWR09KC106KCB\W](#) [CWR09KC156JBB-TR25](#) [CWR11MH685KBA](#) [CWR19FC107KBGB](#) [CWR19HC226KBFB](#) [CWR29JC226KBHC-](#)  
[TR25](#) [TCSCS1A336KBAR](#) [B45196-H5106-K309](#) [B45196-H6226-K509](#) [CWR06KC106KR](#) [CWR09JC225JBB](#) [T83D475K050RCCL](#)  
[TAJB106M016R](#) [TCSCS1A476KBAR](#) [T83E107K016RCCL](#) [T83D685K035RCCL](#) [CWR11JC225KB](#) [CWR11HH105KB](#)  
[293D475X0035B2DE3](#) [F951C106MSAAQ2](#) [293D155X9020A2DE3](#) [CWR29FC106KDBC](#) [CWR09NC224KB](#) [CWR09NC684KM](#)  
[CWR29HH155KCBB](#) [CWR29HC106KCDC](#) [CWR29FC336KDGC](#) [CWR09NC225KDB](#)