

Design Tool Guide

(Component Library, Version 7.0)

Samsung Electro-Mechanics

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3-1. Window layout

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- System Requirements

The information below is provided as an overview of the supported browsers and operation systems.

OS : Windows 10 or higher or Windows Server 2016 or higher

RAM : 2GB

Disk space : 1GB

- Contact Us

If you have any question, contact us via the URL below.

[All | FAQ | SAMSUNG ELECTRO-MECHANICS \(samsungsem.com\)](https://www.samsungsem.com)

[Inquiry | SAMSUNG ELECTRO-MECHANICS \(samsungsem.com\)](https://www.samsungsem.com)

1 Characteristics Viewer

2 Selection Tool

S-parameter	Linear Technology LTspice	Cadence Pspice	Cadence Synopsys Hspice	Cadence AWR	SIMetrix/SIMPLIS	Keysight ADS	Cadence Signity Power SI
Product	Data Type			Update Date	List	Download	
MLCC	MLCC(simple model) S-parameter data files as touchstone format			2021.09	[L]	[D]	
	MLCC(precise model) S-parameter data files as touchstone format			2021.09	[L]	[D]	
Tantalum	Polymer Tantalum Capacitor S-parameter data files as touchstone format			2021.09	[L]	[D]	
Power Inductor	Power Inductors S-parameter data files as touchstone format			2021.09	[L]	[D]	

3 Notice

- 2021-11-01 Software Library has been updated(S-parameter, etc.) [L]
- 2021-08-23 BuyNow function provide features such as stock check and sample order [L]
- 2021-07-20 The component library website has been renewed! [L]
- 2020-08-10 MLCC : Updated thirty-one items
- 2020-07-27 MLCC : Updated forty-seven items

4 SPICE Library Guide | Design Tool Guide | Measurement System and Die-embedding Process | Contact Us

1. All Categories

Shows all categories of the menu.

Please click the menu title to get access to the page.

2. Software Library

Available for download S-Parameters, other software libraries, and user guide documents.

2. Notice

Listing of newly updated notices within a year on the left side.

Available to view detail contents of the selected notice on the right side.

3. Download & Link

User guide documents and access to related sites are supported.

1 Top menu: SAMSUNG ELECTRO-MECHANICS, Component Library | Product Search, MLCC, Power Inductor, Tantalum, Converter Simulation Tool, ENG, FAQ

4 Selected Parts: * Please select item from the list below

2 Filter: Model Mode (Precise/Simple), Graph Type (IZI, R, IXI, IZLR, C, L, Q, DF), DC Bias, AC Volt, Ripple Cur., TCC, DC Bias @ temp, TCC @ DC(V), S(dB), Smith chart, Download (CAD, Footprint, S2P, SPICE, Series, Shunt)

3 Parts List (Filter Result):

Part Number	Data	Use for	Capacitance	Size(inch/mm)	Rated Vdc	TCC	T Size Max	Tolerance	Features
CL02A102KP2N1N		General	1nF	01005/0402	10Vdc	X5R	0.22mm	±10 %	Super-small
CL02A102KQ2N1N		General	1nF	01005/0402	6.3Vdc	X5R	0.22mm	±10 %	Super-small
CL02A103KQ2N1N		General	10nF	01005/0402	6.3Vdc	X5R	0.22mm	±10 %	Super-small
CL02A104KQ2N1N		General	100nF	01005/0402	6.3Vdc	X5R	0.22mm	±10 %	Super-small
CL02A104MQ2N1N		General	100nF	01005/0402	6.3Vdc	X5R	0.22mm	±20 %	Super-small
CL02A104MR2N1N		General	100nF	01005/0402	4Vdc	X5R	0.22mm	±20 %	Super-small
CL02A222KQ2N1N		General	2.2nF	01005/0402	6.3Vdc	X5R	0.22mm	±10 %	Super-small
CL02A224MQ2N1N		General	220nF	01005/0402	6.3Vdc	X5R	0.22mm	±20 %	Super-small
CL02A473KQ2N1N		General	47nF	01005/0402	6.3Vdc	X5R	0.22mm	±10 %	Super-small
CL02B101KP2N1N		General	100pF	01005/0402	10Vdc	X7R	0.22mm	±10 %	Super-small
CL02B102KP2N1N		General	1nF	01005/0402	10Vdc	X7R	0.22mm	±10 %	Super-small
CL02B221KP2N1N		General	220pF	01005/0402	10Vdc	X7R	0.22mm	±10 %	Super-small
CL02B331KQ2N1N		General	330pF	01005/0402	16Vdc	X7R	0.22mm	±10 %	Super-small
CL02B661KP2N1N		General	680pF	01005/0402	10Vdc	X7R	0.22mm	±10 %	Super-small
CL02C010B02G1N		General	1pF	01005/0402	16Vdc	C0G	0.22mm	±0.1 pF	High-Q
CL02C020B02G1N		General	2pF	01005/0402	16Vdc	C0G	0.22mm	±0.1 pF	High-Q
CL02C030B02G1N		General	3pF	01005/0402	16Vdc	C0G	0.22mm	±0.1 pF	High-Q
CL02C040B02G1N		General	4pF	01005/0402	16Vdc	C0G	0.22mm	±0.1 pF	High-Q

Matching Parts : 1863 | Total Parts : 1863

7 Download: List Download

1. Top menu

Showing the page title.

2. Filter

Filtering products by selecting the filter options.

3. Parts List (Filter Result)

Double-click the product on the "Parts List" to add it on the "Selected Parts" for simulation.

4. Selected Parts

Select products for simulation in this area.

5. Model mode

Setting up the Model Mode for simulation.

6. Graph

Drawing a graph by clicking each graph button.

7. Download

Downloading a file to use for simulation.

Directing to Samsung Electro-Mechanics official website and the main page of Product Search, Component Library website

1 **2**

SAMSUNG ELECTRO-MECHANICS Component Library | Product Search

MLCC Power Inductor Tantalum Converter Simulation Tool ENG FAQ

Selected Parts * Please select item from below

Model Mode ?
 Precise Simple

Graph Type
 |Z| R |X| |Z|,R
 C L Q DF
 DC Bias AC Volt
 RippleCurr. TCC
 DC Bias @temp TCC @ DC(V)
 S[dB] Smith chart

Download * Only for supported items.
 3D CAD(.stp) Footprint(.dxf)
 S2P SPICE
 Series Shunt
 Precise Model Simple Model

Filter ^

Part Number	Use for	Capacitance	Tolerance	Size(inch/mm)	Rated Vdc	TCC	T Size Max	Features
CL32A227MQVNNN	General	220uF	±20%	1210/3225	6.3Vdc	X5R	2.8mm	Features Normal
CL32A157MQVNNN	General	150uF	±20%	1210/3225	6.3Vdc	X5R	2.8mm	Features Normal
CL31A107MQKNNW	General	100uF	±20%	1206/3216	6.3Vdc	X5R	1.9mm	Features Normal
CL32Y107MQVN4N	General	100uF	±20%	1210/3225	6.3Vdc	X7S	2.8mm	Features Normal
CL32Z107MRV6PN	Automotive	100uF	±20%	1210/3225	4Vdc	X7T	2.8mm	Features Normal
CL32A107MPVNNN	General	100uF	±20%	1210/3225	10Vdc	X5R	2.8mm	Features Normal
CL32X107MQVNNN	General	100uF	±20%	1210/3225	6.3Vdc	X6S	2.8mm	Features Normal
CL32X107MQVNNW	General	100uF	±20%	1210/3225	6.3Vdc	X6S	2.8mm	Features Normal
CL21X107MRYNW	General	100uF	±20%	0805/2012	4Vdc	X6S	1.45mm	Features Normal
CL31A107MQKNNN	General	100uF	±20%	1206/3216	6.3Vdc	X5R	1.9mm	Features Normal
CL31A107MRKNNW	General	100uF	±20%	1206/3216	4Vdc	X5R	1.9mm	Features Normal
CL32Y107MQVNNW	General	100uF	±20%	1210/3225	6.3Vdc	X7S	2.8mm	Features Normal
CL32Z107MSV6PJ	Automotive	100uF	±20%	1210/3225	2.5Vdc	X7T	2.85mm	Soft Termination(5mm)
CL32Z107MQV6PJ	Automotive	100uF	±20%	1210/3225	6.3Vdc	X7T	2.85mm	Soft Termination(5mm)

Clicking the Inquiry button on the top menu to contact us quickly.

The image shows a transition from the Samsung Electro-Mechanics Product Search page to the Contact Us form. On the left, the Product Search page features a top navigation bar with 'Component Library | Product Search' and a top menu with 'MLCC', 'Power Inductor', 'Tantalum', 'Converter Simulation Tool', and 'ENG'. A blue box highlights the 'FAQ' button with a checkmark icon, and a hand cursor is shown clicking it. An arrow points from this button to the 'Contact Us' form on the right.

The 'Contact Us' form includes the following sections:

- Contact Information:** Fields for Country (United States), First Name (Ex.: John), Last Name (Ex.: Smith), Company E-mail, Company/Organization, Department, and Company Contact Number (with a dropdown for '+1').
- Inquiry Contents:** A large text area for the user's request.
- How did you hear about our products?:** Radio buttons for Search Engine / Web Portal, SAMSUNG Web site, Distributor's Web site, Salesperson, TV/Newspaper/Magazine, and Other.
- Attachment:** A field for file uploads with a 'New' button.
- Preventing automatic entries:** A checkbox to prevent automatic entries.
- Agreement of Collecting and Using Personal Information:** A section with two sub-sections:
 - Purpose of Collecting Personal Information:** A paragraph explaining that Samsung Electro-Mechanics collects and uses personal information for inquiry and request services, and that it will not disclose, sell, trade, or rent this information without prior consent.
 - Personal Information We Collect:** A checkbox for 'I have read the above terms and hereby agree to them.' and radio buttons for 'Yes' and 'No'.
- Would you like to receive our newsletters?:** A checkbox for 'I agree to collecting personal information and usage, as well as subscribing newsletters.' and a note that information such as product launches, exhibitions, and seminars will be sent on a regular basis.

A 'Submit' button is located at the bottom right of the form.

Available to direct to other pages by clicking the menu title.

Component Library | Product Search

MLCC Power Inductor Tantalum Converter Simulation Tool

Model Mode ?
Precise Simple

Graph Type
|Z| R |X| |Z|,R
C L Q DF
DC Bias AC Volt.
RippleCurr. TCC
DC Bias @ temp TCC @ DC(V)
S[dB] Smith chart

Filter

Part Number	Use for	Capacitance	T Size Max	Tolerance	Features
CL32A107MQVNNW	High Reliability	±20 %	Standard	Standard	Standard
CL32A107MPVNNW	High Reliability	±20 %	Standard	Standard	Standard
CL32A107MQVNNN	General	±20 %	Standard	Standard	Standard
CL32A107MPVNNN	General	±20 %	Standard	Standard	Standard
CL32B476KPJNNW	High Reliability	±10 %	Standard	Standard	Standard

Converter Type: Buck Modulation: PWM/PWM Temp: 25 degC

Graph
*The parts that do not have simulation data will be excluded when creating a graph.

Inductor Voltage Efficiency
Inductor Current Inductor Loss
Ripple Voltage

Switch res./fall time: 2 ns (0-100 ns)
Switch R_{on}: 0.05 ohm (0-1 ohm)

All Graphs OFF

Inductor Capacitor

Part Number	Use for	Inductance	Tolerance	Size(ohmm)	T Size Max	Isat Typical	Isat Max	Temp Max	DCR Max	Features
CL32A107MQVNNW	General	0.33uH	±20%	06031608	0.6mm	3.3A	3A	2.4A	0.040	Bottom Type
CL32A107MPVNNW	General	0.47uH	±20%	06031608	0.6mm	2.7A	2.3A	3.3A	0.0350	L Type
CL32A107MQVNNN	General	1uH	±20%	06031608	0.65mm	2A	1.7A	1.5A	0.160	General Type
CL32A107MPVNNN	General	1uH	±20%	06052012	0.6mm	2.7A	2.4A	1.8A	0.110	General Type
CL32B476KPJNNW	General	1uH	±20%	06052012	0.6mm	3.5A	3.2A	3.1A	0.0550	General Type
CL32B476KPJNNN	General	0.47uH	±20%	06052012	0.6mm	4.3A	4.1A	3.7A	0.0350	General Type

Available to hide or show the filter area.

Filter

Part Number	Use for	Capacitance	Size(inch/mm)
<input type="text" value="Part Number Keyword"/>	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> Automotive <input checked="" type="checkbox"/> General <input checked="" type="checkbox"/> High Reliability	Match <input type="text"/> Range <input type="text"/> pF	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> 01005/0402 <input checked="" type="checkbox"/> 015008/05025 <input checked="" type="checkbox"/> 0201/0603

Part Number	Data	Use for	Capacitance	Size(inch/mm)
CL01Y105MR5NLN		General	1uF	0306/0816
CL02A102KP2NNN		General	1nF	01005/0402
CL02A102KQ2NNN		General	1nF	01005/0402
CL02A103KQ2NNN		General	10nF	01005/0402



Filter

Part Number	Data	Use for	Capacitance	Size(inch/mm)
CL01Y105MR5NLN		General	1uF	0306/0816
CL02A102KP2NNN		General	1nF	01005/0402
CL02A102KQ2NNN		General	1nF	01005/0402
CL02A103KQ2NNN		General	10nF	01005/0402
CL02A104KQ2NNN		General	100nF	01005/0402
CL02A104MQ2NNN		General	100nF	01005/0402
CL02A104MR2NNN		General	100nF	01005/0402
CL02A222KQ2NNN		General	2.2nF	01005/0402
CL02A224MQ2NNN		General	220nF	01005/0402
CL02A473KQ2NNN		General	47nF	01005/0402

Initialize all set conditions by clicking the reset button.

Filter 

Reset 

Part Number	Use for	Capacitance	Size(inch/mm)	Rated Vdc	TCC	T Size Max	Tolerance	Features
<input type="text" value="Part Number Keyword"/>	<input type="checkbox"/> all <input type="checkbox"/> Automotive <input type="checkbox"/> General <input checked="" type="checkbox"/> High Reliability	Match Range <input type="text"/> pF	<input checked="" type="checkbox"/> all <input type="checkbox"/> 01005/0402 <input checked="" type="checkbox"/> 015008/05025 <input type="checkbox"/> 0201/0603	Match Range from <input type="text"/> Vdc ~ to <input type="text"/> Vdc	<input checked="" type="checkbox"/> all <input type="checkbox"/> C0G <input checked="" type="checkbox"/> X5R <input checked="" type="checkbox"/> X6S	Match Range <input type="text"/> mm	<input checked="" type="checkbox"/> all <input type="checkbox"/> +80 % / -20 % <input type="checkbox"/> ± 0.03 pF <input checked="" type="checkbox"/> ± 0.05 pF	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> DC Bias Improved <input type="checkbox"/> ESD <input checked="" type="checkbox"/> High Bending



Filter 

Reset

Part Number	Use for	Capacitance	Size(inch/mm)	Rated Vdc	TCC	T Size Max	Tolerance	Features
<input type="text" value="Part Number Keyword"/>	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> Automotive <input checked="" type="checkbox"/> General <input checked="" type="checkbox"/> High Reliability	Match Range <input type="text"/> pF	<input checked="" type="checkbox"/> all <input type="checkbox"/> 01005/0402 <input checked="" type="checkbox"/> 015008/05025 <input type="checkbox"/> 0201/0603	Match Range <input type="text"/> Vdc	<input checked="" type="checkbox"/> all <input type="checkbox"/> C0G <input checked="" type="checkbox"/> X5R <input checked="" type="checkbox"/> X6S	Match Range <input type="text"/> mm	<input checked="" type="checkbox"/> all <input type="checkbox"/> +80 % / -20 % <input type="checkbox"/> ± 0.03 pF <input checked="" type="checkbox"/> ± 0.05 pF	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> DC Bias Improved <input checked="" type="checkbox"/> ESD <input checked="" type="checkbox"/> High Bending

Search products by typing in part number. (Partial matching is supported)

Filter ^
Reset

Part Number	Use for	Capacitance	Size(inch/mm)	Rated Vdc	TCC	T Size Max	Tolerance	Features
CL31B22	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> Automotive <input checked="" type="checkbox"/> General <input checked="" type="checkbox"/> High Reliability	Match Range <input type="text"/> pF	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> 01005/0402 <input checked="" type="checkbox"/> 015008/05025 <input checked="" type="checkbox"/> 0201/0603	Match Range <input type="text"/> Vdc	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> C0G <input checked="" type="checkbox"/> X5R <input checked="" type="checkbox"/> X6S	Match Range <input type="text"/> mm	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> +80 % / -20 % <input checked="" type="checkbox"/> ± 0.03 pF <input checked="" type="checkbox"/> ± 0.05 pF	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> DC Bias Improved <input checked="" type="checkbox"/> ESD <input checked="" type="checkbox"/> High Bending

Part Number	Data	Use for	Capacitance	Size(inch/mm)	Rated Vdc	TCC	T Size Max	Tolerance	Features
CL31B222KGFNNN		General	2.2nF	1206/3216	500Vdc	X7R	1.4mm	±10 %	Med-High Volt
CL31B224JBFNNN		General	220nF	1206/3216	50Vdc	X7R	1.4mm	±5 %	Standard
CL31B224KBFNNN		General	220nF	1206/3216	50Vdc	X7R	1.4mm	±10 %	Standard
CL31B224KBFNNW		High Reliability	220nF	1206/3216	50Vdc	X7R	1.4mm	±10 %	Standard
CL31B224MBFNNN		General	220nF	1206/3216	50Vdc	X7R	1.4mm	±20 %	Standard
CL31B224MBFNNW		High Reliability	220nF	1206/3216	50Vdc	X7R	1.4mm	±20 %	Standard
CL31B225KAHNNN		General	2.2uF	1206/3216	25Vdc	X7R	1.8mm	±10 %	Standard
CL31B225KAHNNW		High Reliability	2.2uF	1206/3216	25Vdc	X7R	1.8mm	±10 %	Standard
CL31B225KAHVPN		Automotive	2.2uF	1206/3216	25Vdc	X7R	1.8mm	±10 %	Standard
CL31B225KBHNNN		General	2.2uF	1206/3216	50Vdc	X7R	1.8mm	±10 %	Standard

Available to select/deselect all the options of each property at once by check on/off the "all" option.

Filter
Reset

Part Number	Use for	Capacitance	Size(inch/mm)	Rated Vdc	TCC	T Size Max	Tolerance	Features	
<input type="text" value="Part Number Keyword"/>	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> Automotive <input checked="" type="checkbox"/> General <input checked="" type="checkbox"/> High Reliability	<input type="text"/> <input type="text"/> <input type="text"/> Match Range pF	<input type="checkbox"/> all <input type="checkbox"/> 01005/0402 <input type="checkbox"/> 015008/05025 <input type="checkbox"/> 0201/0603	<input type="text"/> <input type="text"/> <input type="text"/> Match Range Vdc	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> C0G <input checked="" type="checkbox"/> X5R <input checked="" type="checkbox"/> X6S	<input type="text"/> <input type="text"/> <input type="text"/> Match Range mm	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> +80 % / -20 % <input checked="" type="checkbox"/> ± 0.03 pF <input checked="" type="checkbox"/> ± 0.05 pF	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> DC Bias Improved <input checked="" type="checkbox"/> ESD <input checked="" type="checkbox"/> High Bending	
Part Number	Data	Use for	Capacitance	Size(inch/mm)	Rated Vdc	TCC	T Size Max	Tolerance	Features
CL31A107MQKNNN		General	100uF	1206/3216	6.3Vdc	X5R	1.9mm	±20 %	Standard
CL31A107MQKNNW		High Reliability	100uF	1206/3216	6.3Vdc	X5R	1.9mm	±20 %	Standard
CL32A107MQVNNW		High Reliability	100uF	1210/3225	6.3Vdc	X5R	2.8mm	±20 %	Standard
CL32A107MPVNNW		High Reliability	100uF	1210/3225	10Vdc	X5R	2.8mm	±20 %	Standard
CL32A107MQVNNN		General	100uF	1210/3225	6.3Vdc	X5R	2.8mm	±20 %	Standard
CL32A107MPVNNN		General	100uF	1210/3225	10Vdc	X5R	2.8mm	±20 %	Standard

Sorting products in ascending /descending order by using the hidden tool coming up when mouse over the column header on the "Parts List" area.

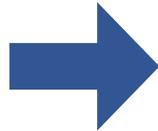
Part Number	Data	Use for	Capacitance	Size(inch/mm)	Rated Vdc	TCC	T Size Max	Tolerance	Features
CL31A107MQKNNN			100uF	1206/3216	6.3Vdc	X5R	1.9mm	±20 %	Standard
CL31A107MQKNNW		High Reliability	100uF	1206/3216	6.3Vdc	X5R	1.9mm	±20 %	Standard
CL32A107MQVNNW		High Reliability	100uF	1210/3225	6.3Vdc	X5R	2.8mm	±20 %	Standard
CL32A107MPVNNW		High Reliability	100uF	1210/3225	10Vdc	X5R	2.8mm	±20 %	Standard
CL32A107MQVNNN		General	100uF	1210/3225	6.3Vdc	X5R	2.8mm	±20 %	Standard



Part Number	Data	Use for	Capacitance	Size(inch/mm)	Rated Vdc	TCC	T Size Max	Tolerance	Features
CL01Y105MR5NLN		General	1uF	0306/0816	4Vdc	X7S	0.55mm	±20 %	Low ESL(LICC)
CL02A102KP2NNN		General	1nF	01005/0402	10Vdc	X5R	0.22mm	±10 %	Super-small
CL02A102KQ2NNN		General	1nF	01005/0402	6.3Vdc	X5R	0.22mm	±10 %	Super-small
CL02A103KQ2NNN		General	10nF	01005/0402	6.3Vdc	X5R	0.22mm	±10 %	Super-small
CL02A104KQ2NNN		General	100nF	01005/0402	6.3Vdc	X5R	0.22mm	±10 %	Super-small

Directing to the datasheet of each product by clicking a datasheet icon on the data column.
 Available to download datasheet page in PDF format.

Part Number	Data	Use for
CL31A107MQKNNN		General
CL31A107MQKNNW		High Reliability
CL32A107MQVNNW		High Reliability
CL32A107MPVNNW		High Reliability
CL32A107MQVNNN		General
CL32A107MPVNNN		General
CL32B476KPJNNW		High Reliability
CL10A476MR8NZN		General
CL21A476MQ7LRN		General
CL21A476MQCLRN		General
CL21A476MQYNNN		General
CL21A476MQYNNW		High Reliability
CL21A476MRYNNN		General



[PDF Download](#)
[Contact Us](#)

MLCC (Multi Layer Ceramic Capacitor)

CL31A107MQKNNN

Specifications

Property	Nominal Capacitance	Capacitance Tolerance	Rated Vdc	TCC	Size	Length	Width	Thickness
Value	100.0uF	±20 %	6.3Vdc	X5R	1206(unit:inch), 3216(unit:mm)	3.20 ± 0.30 mm	1.60 ± 0.30 mm	1.60 ± 0.30 mm

Data Graph

Temperature Characteristics of Capacitance(TCC)
1 CR meter 0.12kHz 0.5Vrms

DC Bias Characteristics
1 CR meter 0.12kHz 0.5Vrms

A double-clicked product on the "Parts List" area would be placed at the front of the "Selected Parts" area and all the others would be deselected at the same time.

Selected Parts(1) CL31A107MQKNNW Vdc degC
(0 ~ 6.3) (-55~85)

Filter

Part Number	Data	Use for	Capacitance	Size(inch/mm)	Rated Vdc	TCC	T Size Max	Tolerance	Features
CL31A107MQKNNN	<input type="button" value="Data"/>	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> Automotive <input checked="" type="checkbox"/> General <input checked="" type="checkbox"/> High Reliability	<input type="text" value="Match"/> <input type="text" value="Range"/> pF	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> 01005/0402 <input checked="" type="checkbox"/> 015008/05025 <input checked="" type="checkbox"/> 0201/0603	<input type="text" value="Match"/> <input type="text" value="Range"/> Vdc	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> C0G <input checked="" type="checkbox"/> X5R <input checked="" type="checkbox"/> X6S	<input type="text" value="Match"/> <input type="text" value="Range"/> mm	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> +80 % / -20 % <input checked="" type="checkbox"/> ± 0.03 pF <input checked="" type="checkbox"/> ± 0.05 pF	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> DC Bias Improved <input checked="" type="checkbox"/> ESD <input checked="" type="checkbox"/> High Bending
CL31A107MQKNNW	<input type="button" value="Data"/>	General	100uF	1206/3216	6.3Vdc	X5R	1.9mm	±20 %	Standard
CL32A107MQKNNW	<input type="button" value="Data"/>	High Reliability	100uF	1210/3225	6.3Vdc	X5R	2.8mm	±20 %	Standard
CL32A107MQKNNW	<input type="button" value="Data"/>	High Reliability	100uF	1210/3225	10Vdc	X5R	2.8mm	±20 %	Standard
CL32A107MQVNNN	<input type="button" value="Data"/>	General	100uF	1210/3225	6.3Vdc	X5R	2.8mm	±20 %	Standard

Showing the number of matching parts on the lower-left side of the "Parts List" area.

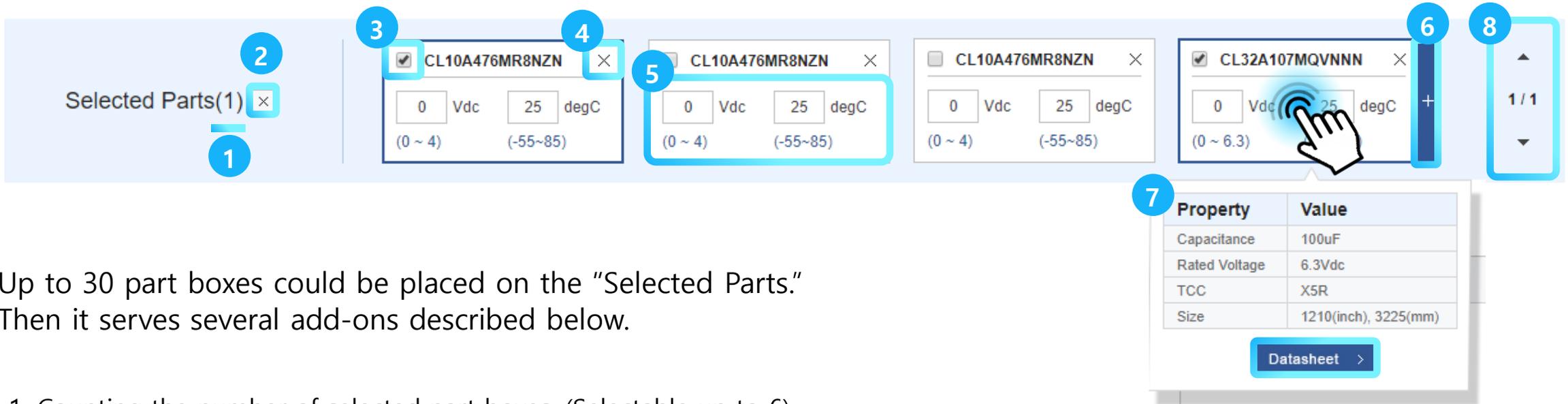
Available to save the matching parts list data in Excel format by clicking "List download" button on the lower-left.

CL21A476MRYNNN		General	47uF	0805/2012	4Vdc	X5R	1.45mm	±20 %	Standard
CL31A476KQHNNN		General	47uF	1206/3216	6.3Vdc	X5R	1.8mm	±10 %	Standard
CL31A476MQHNNN		General	47uF	1206/3216	6.3Vdc	X5R	1.8mm	±20 %	Standard
CL31A476MQHNNW		High Reliability	47uF	1206/3216	6.3Vdc	X5R	1.8mm	±20 %	Standard
CL31X476MRHNNN		General	47uF	1206/3216	4Vdc	X6S	1.8mm	±20 %	Standard
CL21X476MRYNNN		General	47uF	0805/2012	4Vdc	X6S	1.45mm	±20 %	Standard
CL10A476MQ8QRN		General	47uF	0603/1608	6.3Vdc	X5R	1mm	±20 %	Standard
CL10A476MR8NRN		General	47uF	0603/1608	4Vdc	X5R	1mm	±20 %	Standard
CL32B476MPJNNN		General	47uF	1210/3225	10Vdc	X7R	2.7mm	±20 %	Standard
CL32B226KAJNNN		General	22uF	1210/3225	25Vdc	X7R	2.7mm	±10 %	Standard
CL10A226MQ8NUN		General	22uF	0603/1608	6.3Vdc	X5R	1mm	±20 %	Standard
CL32B226KOJNNN		General	22uF	1210/3225	16Vdc	X7R	2.7mm	±10 %	Standard
CL32B226KOJNNW		High Reliability	22uF	1210/3225	16Vdc	X7R	2.7mm	±10 %	Standard

Matching Parts : 1863
Total Parts : 1863


List Download





Up to 30 part boxes could be placed on the "Selected Parts."
Then it serves several add-ons described below.

1. Counting the number of selected part boxes. (Selectable up to 6)
2. Deleting all the part boxed by clicking the button.
3. Available to select/deselect, and the border of selected part boxes would be blue-colored.
4. Deleting the part box by clicking the delete button.
5. Assignable the specific value for simulation (please refer to the available range of value served on the below of each field)
6. Available to copy the part box by clicking the + button appeared when you mouse over the box.
7. Available to confirm properties and to get access to datasheet easily when you mouse over the box.
8. Available to scroll up/down by this button and mouse scrolling.

*Drawing graphs or downloading data from the left side panel after setting up the simulation value of the selected part boxes.

Available to hide or show the side panel.

Hide side panel

Model Mode ?

Precise Simple

Graph Type

$ Z $	R	$ X $	$ Z ,R$
C	L	Q	DF
DC Bias	AC Volt.		
RippleCurr.	TCC		
DC Bias @ temp	TCC @ DC(V)		
S[dB]	Smith chart		

Download * Only for supported items.

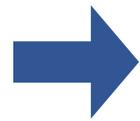
S2P	SPICE
Series	Shunt

Filter ^

Part Number

Part Number Keyword

Part Number	Data
CL31A107MQKNNN	
CL31A107MQKNNW	
CL32A107MQVNNW	
CL32A107MPVNNW	
CL32A107MQVNNN	
CL32A107MPVNNN	
CL32B476KPJNNW	
CL10A476MR8NZN	
CL21A476MQ7LRN	
CL21A476MQCLRN	



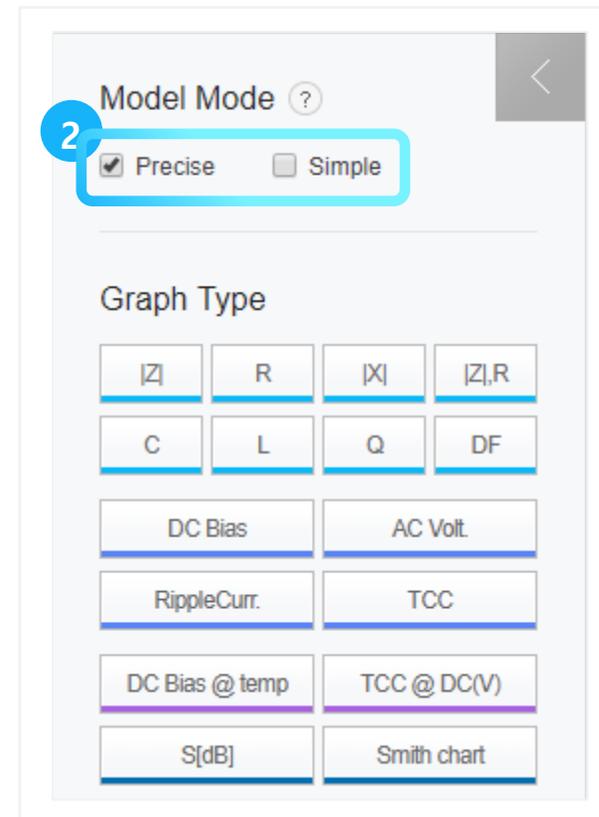
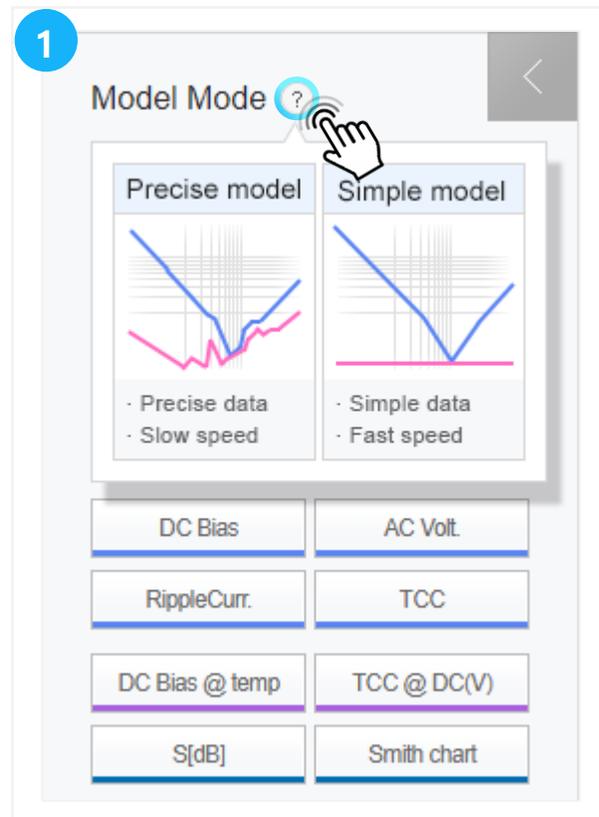
Show side panel

Filter ^

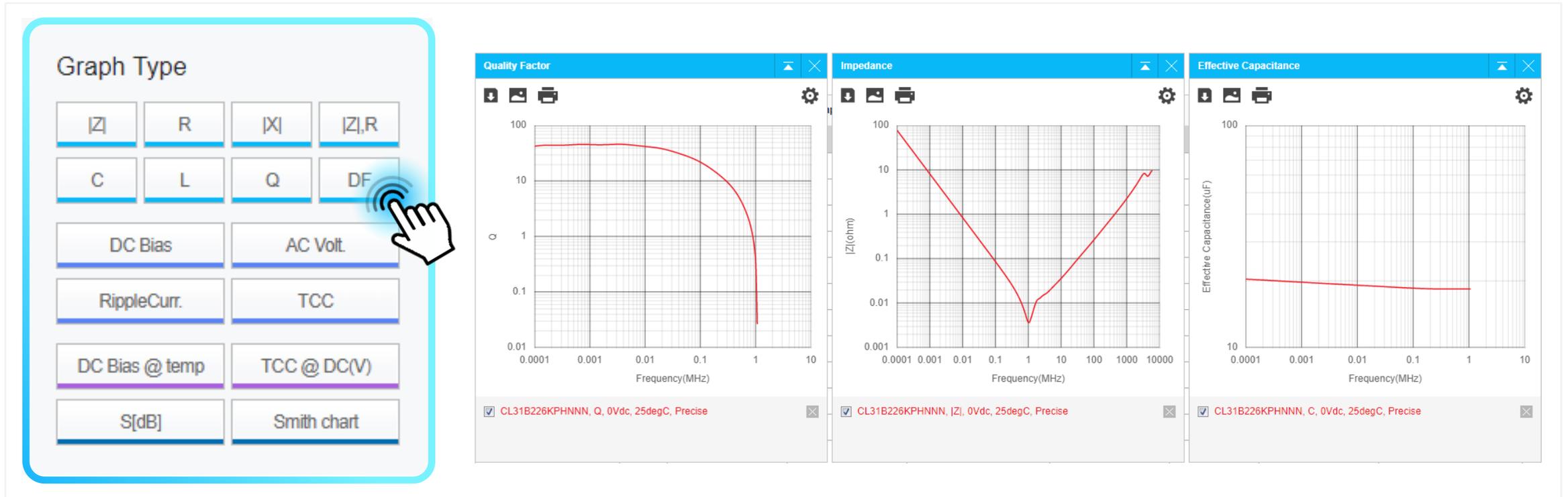
Part Number	Use for
Part Number Keyword	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> Automotive <input checked="" type="checkbox"/> General <input checked="" type="checkbox"/> High Reliability

Part Number	Data	Use for
CL31A107MQKNNN		General
CL31A107MQKNNW		High Reliability
CL32A107MQVNNW		High Reliability
CL32A107MPVNNW		High Reliability
CL32A107MQVNNN		General
CL32A107MPVNNN		General
CL32B476KPJNNW		High Reliability
CL10A476MR8NZN		General
CL21A476MQ7LRN		General

1. Showing a guide tooltip for the Model Mode when mouse over the question mark.
2. Single/multiple selections are available for the Model Mode option.



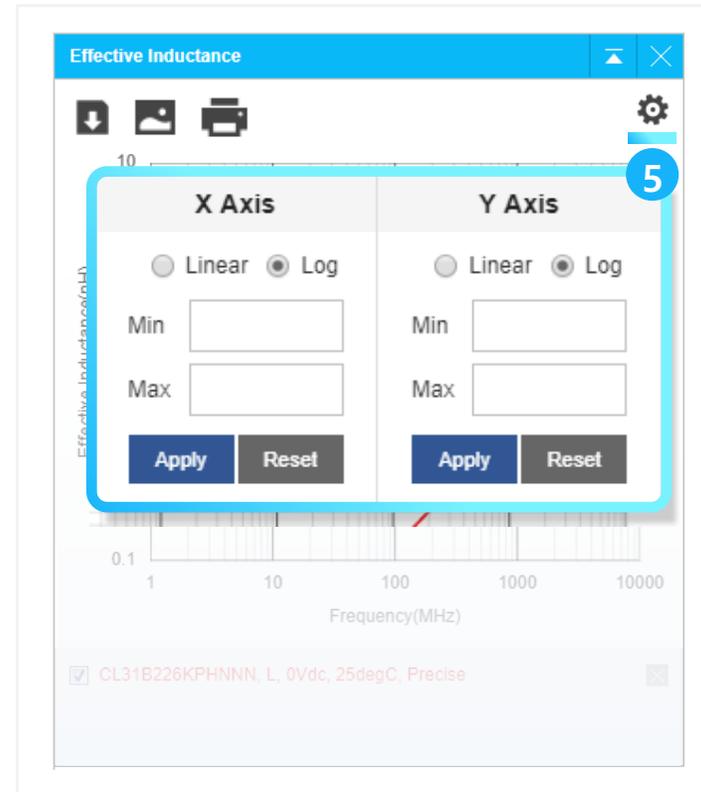
1. Draw graphs of the selected part box by clicking each graph button. (Supported graphs could differ by each product)
2. Graph windows pop up in order on the right side and it is possible to drag each graph window to where you want.



Available to select the S-parameter circuit for the graphs of "S[Db]" and "Smith chart" when mouse over each graph.



1. Save raw data of the graph.
2. Save the image file of the graph in PNG format.
3. Print of this graph.
4. Show or hide a graph with the 'select / deselect' option, and can delete it.
5. Set up the details related to the axis of the graph.



Download simulation file of the selected parts.

* 3D CAD(.stp) : Download the 3D CAD shape of the product. * Footprint(.dxf) : Download the recommended PAD size of the product. Simulation file would be downloaded in a single zip file when multiple part boxes selected.

Model Mode ?

Precise Simple

Graph Type

Filter ^

Part Number Keyword

Part Number	Use for	Capacitance	Tolerance	Size(inch/mm)	Rated Vdc	TCC	T Size Max	Features
	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> Automotive <input checked="" type="checkbox"/> General	Range Match from ~ pF to ~ pF	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> -20/+80% <input checked="" type="checkbox"/> ±0.1pF <input checked="" type="checkbox"/> ±0.25pF	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> 01005/0402 <input checked="" type="checkbox"/> 015008/05025 <input checked="" type="checkbox"/> 0201/0603	Range Match from ~ Vdc to ~ Vdc	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> C0G <input checked="" type="checkbox"/> X5R <input checked="" type="checkbox"/> X6S	Range Match from ~ mm to ~ mm	<input checked="" type="checkbox"/> all <input checked="" type="checkbox"/> 3T(Low ESL) <input checked="" type="checkbox"/> 8T(Array) <input checked="" type="checkbox"/> 8T(Low ESL)

Part Number	Data	Use for	Capacitance	Tolerance	Size(inch/mm)	Rated Vdc	TCC	T Size Max	Features
CL32A227MQVNNN		General	220uF	±20%	1210/3225	6.3Vdc	X5R	2.8mm	Normal
CL32A157MQVNNN		General	150uF	±20%	1210/3225	6.3Vdc	X5R	2.8mm	Normal
CL31X107MRKNNW		General	100uF	±20%	1206/3216	4Vdc	X6S	1.9mm	Normal
CL31A107MRKNNW		General	100uF	±20%	1206/3216	4Vdc	X5R	1.9mm	Normal
CL32X107MRVNNW		General	100uF	±20%	1210/3225	4Vdc	X6S	2.8mm	Normal
CL31A107MQHNNN		General	100uF	±20%	1206/3216	6.3Vdc	X5R	1.8mm	Normal
CL32X107MQVNNW		General	100uF	±20%	1210/3225	6.3Vdc	X6S	2.7mm	Normal
CL32A107MPVNNN		General	100uF	±20%	1210/3225	10Vdc	X5R	2.8mm	Normal
CL32A107MQVNNN		General	100uF	±20%	1210/3225	6.3Vdc	X5R	2.8mm	Normal
CL32A107MQVNNW		General	100uF	±20%	1210/3225	6.3Vdc	X5R	2.8mm	Normal
CL32X107MQVNNN		General	100uF	±20%	1210/3225	6.3Vdc	X6S	2.7mm	Normal
CL32Y107MQVN4N		General	100uF	±20%	1210/3225	6.3Vdc	X7S	2.8mm	Normal
CL32Y107MQVNNW		General	100uF	±20%	1210/3225	6.3Vdc	X7S	2.8mm	Normal

Download * Only for supported items.

Series

