

TAIYO YUDEN Component Library for Analog Devices LTspice (Temperature/DC Bias Model)

- Installation manual -

Contents

- * **How to install Component Library to LTspice24 (P3-P4)**
- * **How to install Component Library to LTspice XVII (P5-P6)**
- * **How to use Component Library (P7-P10)**
- * **About component category (P11-P15)**
- * **How to uninstall Component Library from LTspice24 (P16)**
- * **How to uninstall Component Library from LTspice XVII (P17)**

How to install Component Library to LTspice24

The following instruction is for LTspice24.

Step 1. Unzip “LT_TY**.zip”.

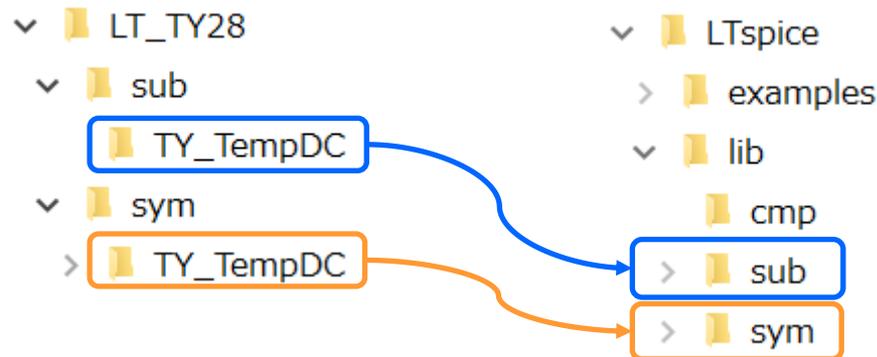
Step 2. Copy each “TY_TempDC” folder located in unzipped sub and sym folder into the following folder respectively.

sub folder

C:\Users\<Windows login user name>\AppData\Local\LTspice\lib\sub

sym folder

C:\Users\<Windows login user name>\AppData\Local\LTspice\lib\sym



How to install Component Library to LTspice24

Step 3. Launch LTspice and click control panel button on the toolbar.

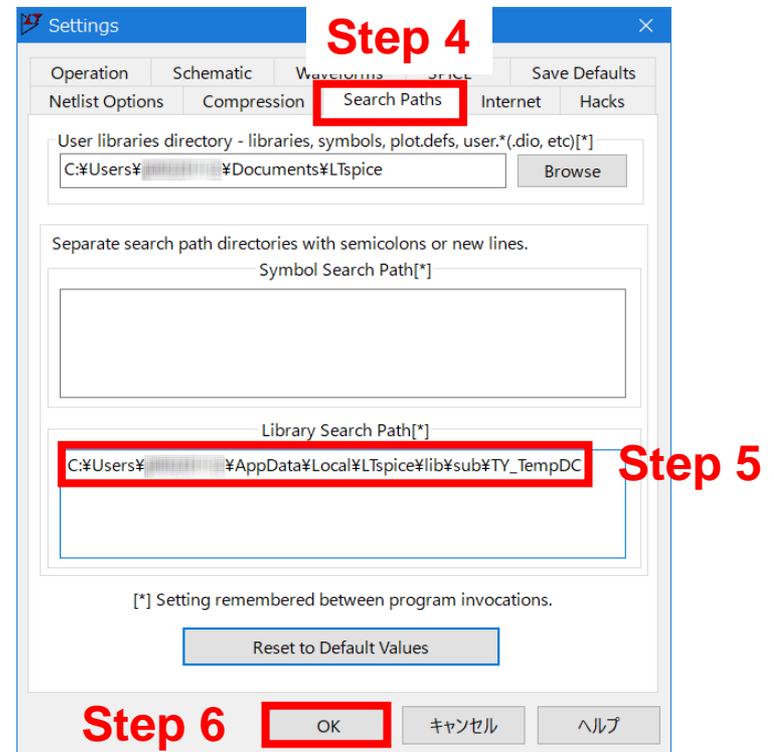
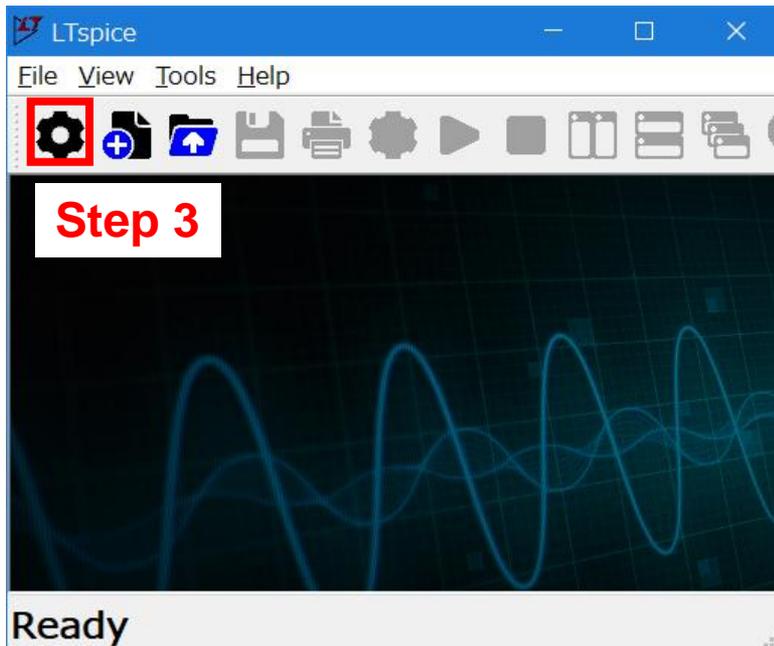
Step 4. Select “Search Paths” tab on the control panel.

Step 5. Describe the full install path at Step 2 into “Library Search Path” pane as shown below.

C:¥Users¥<Windows login user name>¥AppData¥Local¥LTspice¥lib¥sub¥TY_TempDC

Step 6. Click OK to finish the installation.

Relaunch LTspice to use the library.



How to install Component Library to LTspice XVII

The following instruction is for LTspice XVII.

Step 1. Unzip “LT_TY**.zip”.

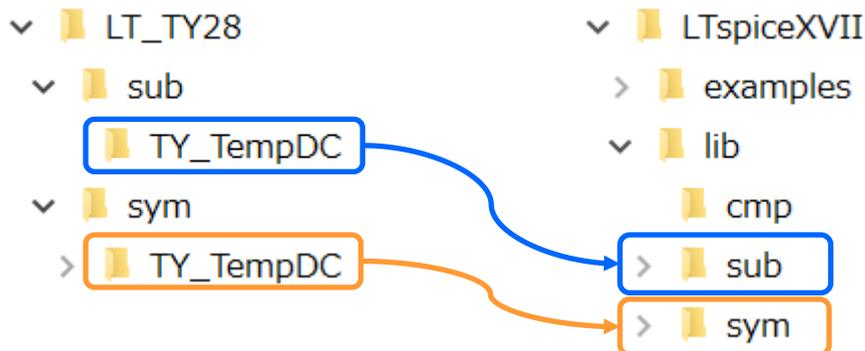
Step 2. Copy each “TY_TempDC” folder located in unzipped sub and sym folder into the following folder respectively.

sub folder

C:\Users\<Windows login user name>\Documents\LTspiceXVII\lib\sub

sym folder

C:\Users\<Windows login user name>\Documents\LTspiceXVII\lib\sym



How to install Component Library to LTspice XVII

Step 3. Launch LTspice and click control panel button on the toolbar.

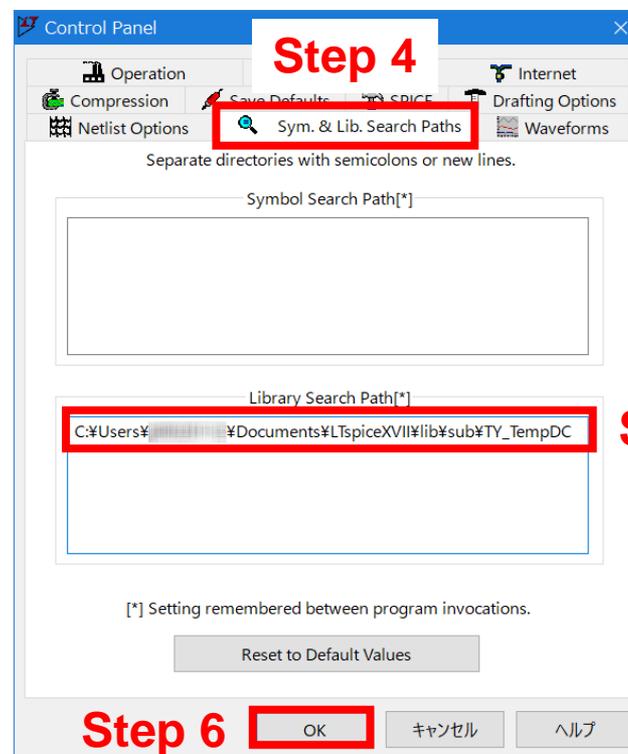
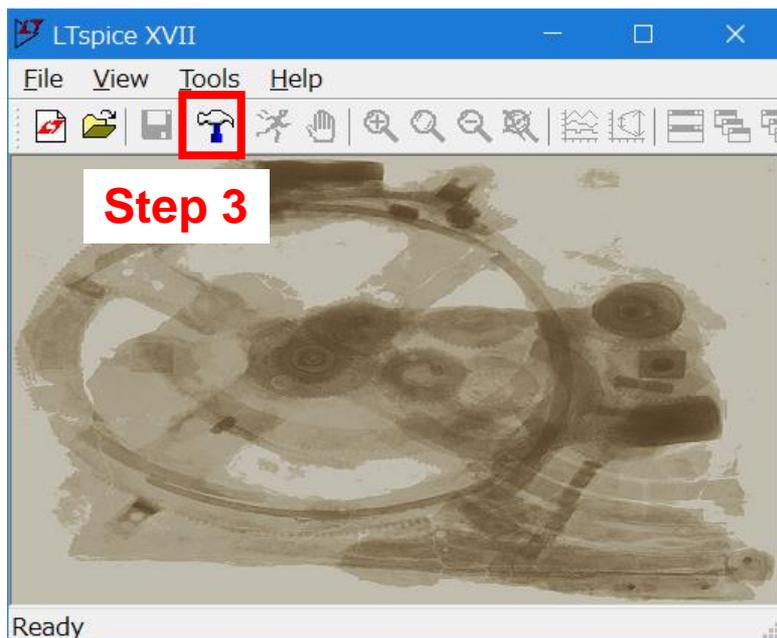
Step 4. Select “Sym. & Lib. Search Paths” tab on the control panel.

Step 5. Describe the full install path at Step 2 into “Library Search Path” pane as shown below.

`C:¥Users¥<Windows login user name>¥Documents¥LTspiceXVII¥lib¥sub¥TY_TempDC`

Step 6. Click OK to finish the installation.

Relaunch LTspice to use the library.



How to use Component Library

Step 1. Open the schematic window.

Step 2. Click the component icon from the toolbar or the menu bar and double-click [TY_TempDC] folder.

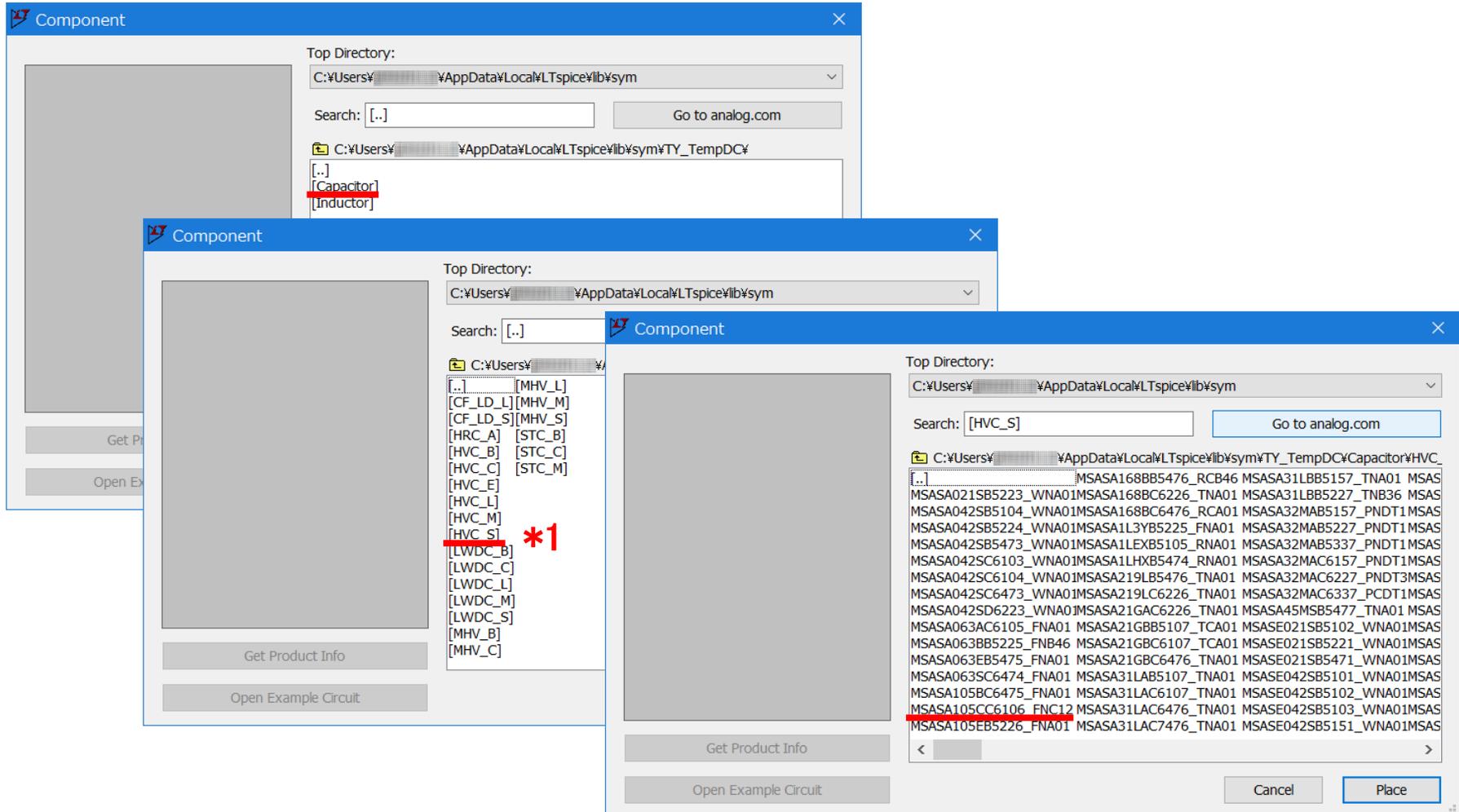
The screenshot shows the LTspice interface with the Component dialog box open. The 'Component' icon in the menu bar is highlighted with a red box, and a red arrow points to the 'TY_TempDC' folder in the Component dialog box. The dialog box shows a list of components and their sub-folders, with 'TY_TempDC' highlighted.

Component	Sub-folder	Sub-folder	Sub-folder
[ADC]	bv	ISO16750-2	pmos4
[Comparators]	cap	ISO7637-2	pnp
[Contrib]	csw	LED	pnp2
[CurrentMonitors]	current	load	pnp4
[DAC]	diode	load2	polcap
[Digital]	e	lpinp	res
[FilterProducts]	e2	ltime	res2
[Misc]	f	mesfet	schottky
[OpAmps]	FerriteBead	njf	SOAtherm-HeatSink
[Optos]	FerriteBead2	nmos	SOAtherm-NMOS
[PowerProducts]	fra	nmos4	SOAtherm-PCB
[References]	fraprobe	npn	sw
[SpecialFunctions]	g	nnp2	tline
[Switches]	g2	nnp3	TVSdiode
[TY_TempDC]	h	nnp4	varactor
di	ind	pjf	voltage
bi2	ind2	pmos	zener

How to use Component Library

Step 3. Continue to follow the folders to find and select the component to use.

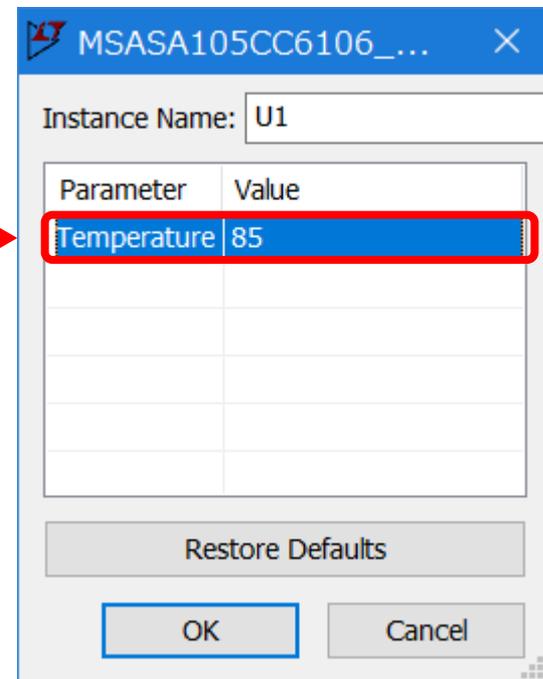
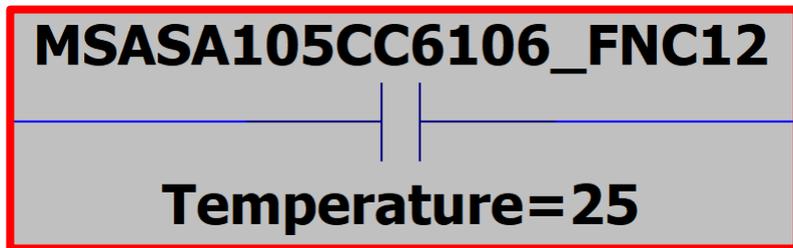
***1 :** Please also refer to pages from 11 to 15 about component category folders located directly under Capacitor and Inductor folder.



How to use Component Library

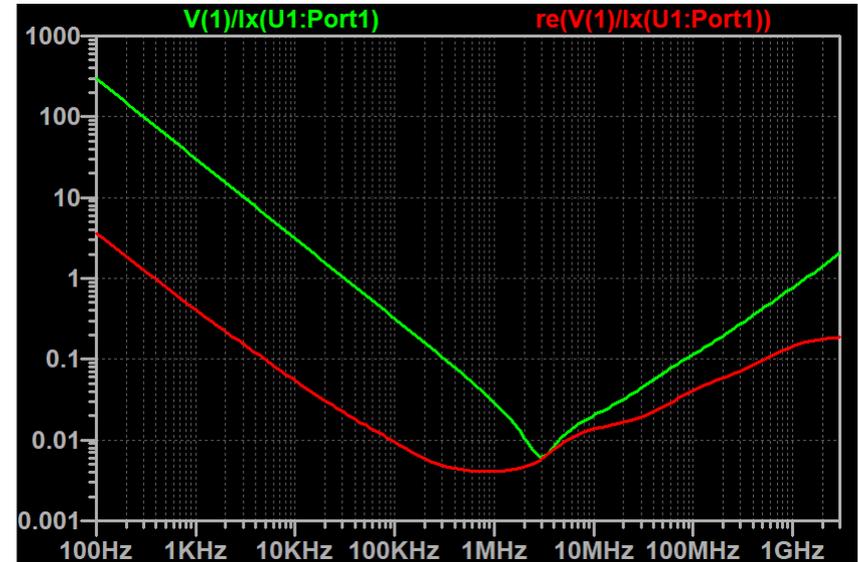
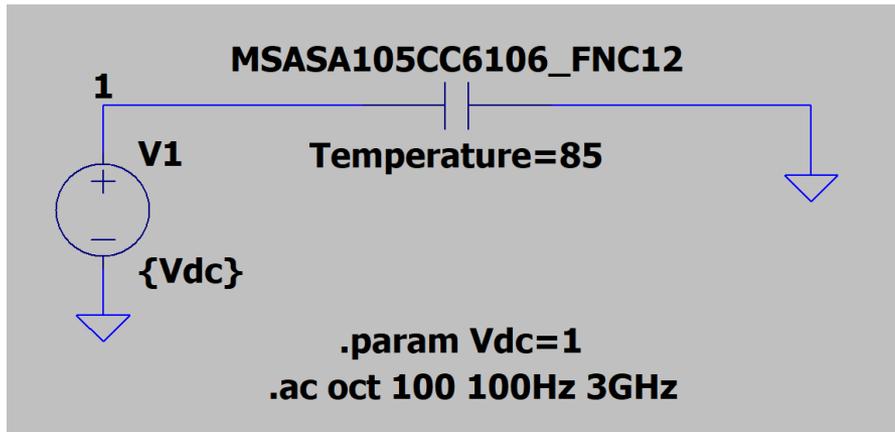
Step 4. Place the component on the schematic.

Step 5. Right-click the symbol on the schematic and edit the ambient temperature of the component.



How to use Component Library

Step 6. Perform the simulation.



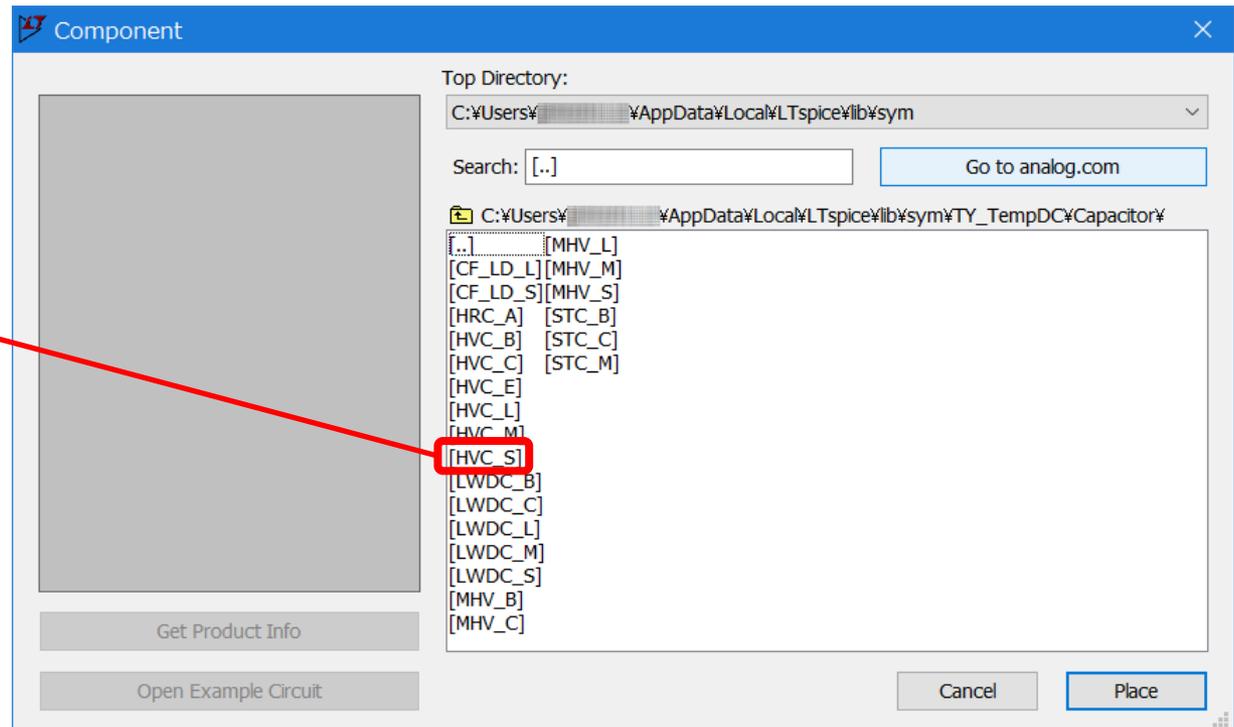
About component category

The name of component category folders located directly under Capacitor folder is composed of series abbreviation and application symbol as follows.

Series abbreviation

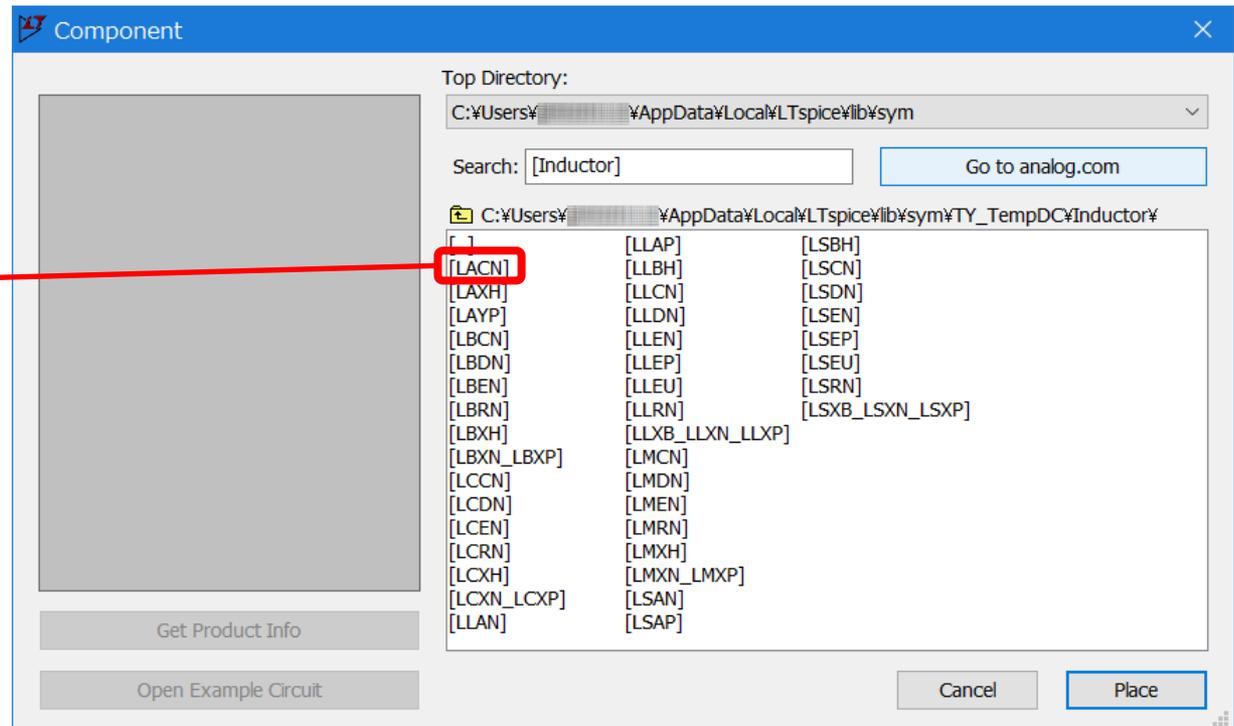
HVC_S

Application symbol



About component category

The name of component category folders located directly under Inductor folder, itself, represents series abbreviation. The second letter of series abbreviation should be treated as application symbol.



About component category

Application symbols describe the categories where the components are intended to use according to the following chart.

Please confirm our product catalog or product specification for details.

Application symbol	Application	Equipment
A	Automotive	Automotive Electronic Equipment (POWERTRAIN, SAFETY)
C		Automotive Electronic Equipment (BODY & CHASSIS, INFOTAINMENT)
B	Industrial	Telecommunications Infrastructure and Industrial Equipment
M	Medical	Medical Devices classified as GHTF Class C (Japan Class III)
L		Medical Devices classified as GHTF Classes A or B (Japan Classes I or II)
S	Consumer	General Electronic Equipment
E		Only for Mobile Devices

About component category

**Series abbreviations describe the following product series.
Please confirm our product catalog or product specification for details.**

Ceramic Capacitors

Series abbreviation	Product series
HVC	Multilayer Ceramic Capacitors (High dielectric type)
CF_LD	Low distortion design/Audible/Good bias Multilayer Ceramic Capacitors (CF_LD)
MHV	Medium-High Voltage Multilayer Ceramic Capacitors
STC	Soft Termination Multilayer Ceramic Capacitors
LWDC	LW Reversal Decoupling Low ESL Capacitors (LWDC™)
HRC	High Reliability Multilayer Ceramic Capacitors

About component category

Inductors

Series abbreviation	Product series
L_EN	Wire-wound Metal Power Inductors MCOIL™ L_EN series
L_EP	Wire-wound Metal Power Inductors MCOIL™ L_EP series
L_EU	Wire-wound Metal Power Inductors MCOIL™ L_EU series
L_CN	Wire-wound Metal Power Inductors MCOIL™ L_CN series
L_DN	Wire-wound Metal Power Inductors MCOIL™ L_DN series
L_AN	Wire-wound Metal Power Inductors MCOIL™ L_AN series
L_AP	Wire-wound Metal Power Inductors MCOIL™ L_AP series
L_BH	Wire-wound Metal Power Inductors MCOIL™ L_BH series
L_XN	Wire-wound Ferrite Power Inductors L_XN series
L_XP	Wire-wound Ferrite Power Inductors L_XP series
L_XH	Wire-wound Ferrite Power Inductors L_XH series
L_RN	Wire-wound Ferrite Power Inductors L_RN series
L_YP	Wire-wound Ferrite Power Inductors L_YP series

* “_” in the series abbreviation should be replaced by the character representing the application of the product either “A”, “C”, “B”, “M”, “L” or “S”.

How to uninstall Component Library from LTspice24

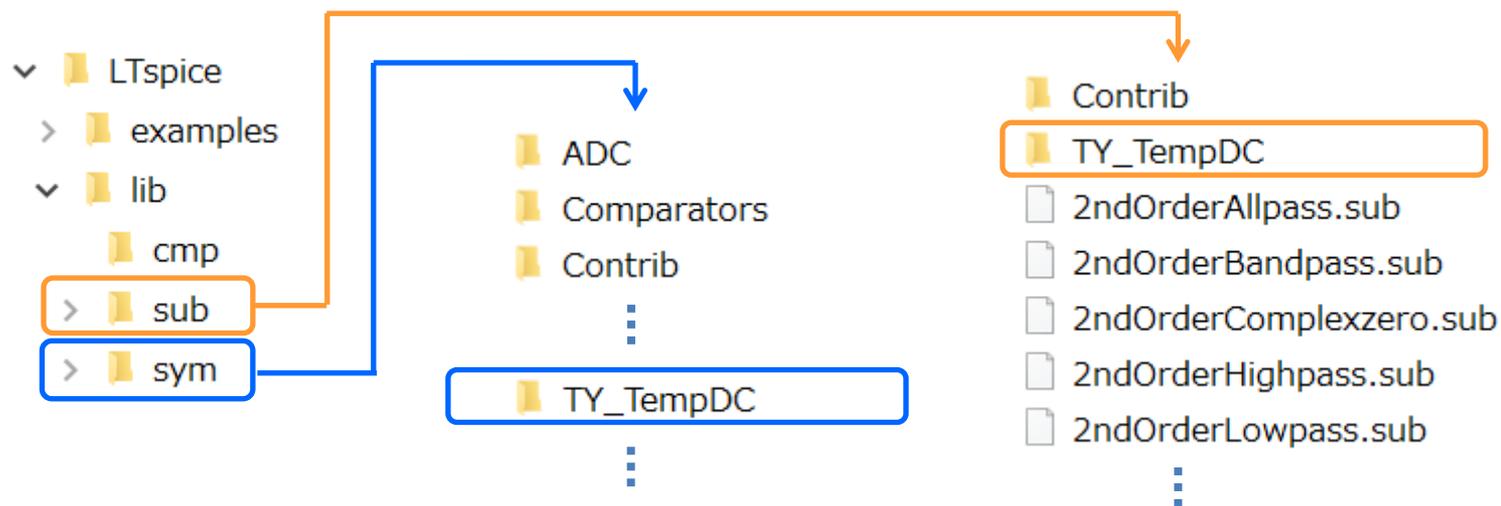
Delete each “TY_TempDC” folder respectively from the folder where you installed them.

sub folder

C:\Users\<Windows login user name>\AppData\Local\LTspice\lib\sub

sym folder

C:\Users\<Windows login user name>\AppData\Local\LTspice\lib\sym



How to uninstall Component Library from LTspice XVII

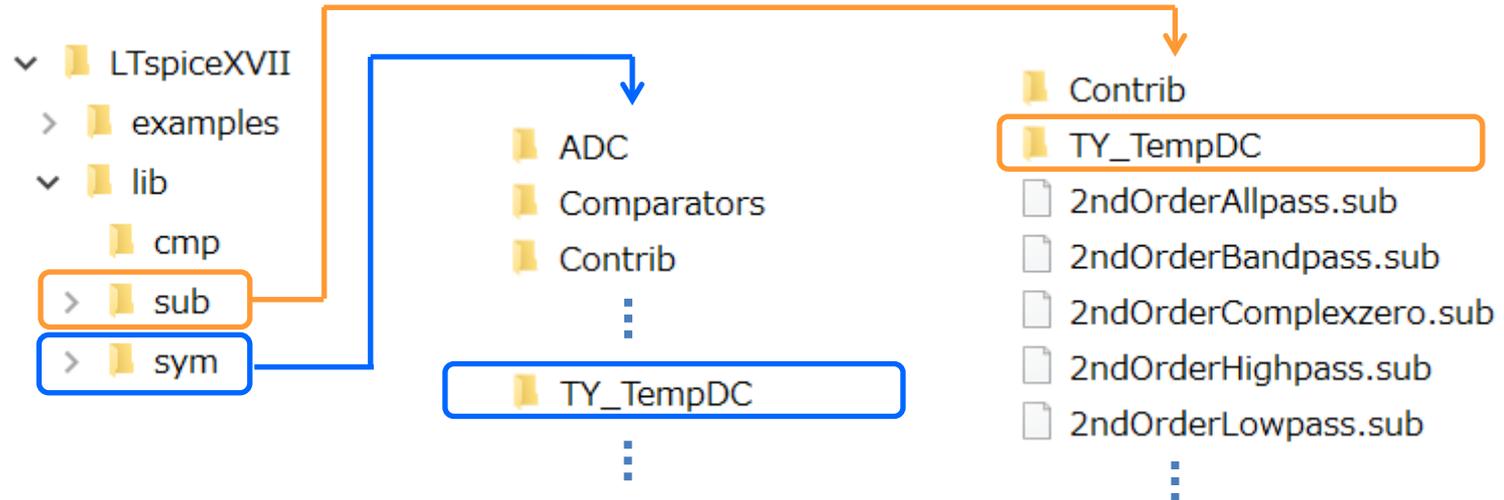
Delete each “TY_TempDC” folder respectively from the folder where you installed them.

sub folder

C:\Users\<Windows login user name>\Documents\LTspiceXVII\lib\sub

sym folder

C:\Users\<Windows login user name>\Documents\LTspiceXVII\lib\sym



TAIYO YUDEN