PCB Libraries Footprint Naming Convention for Standard TH Components

Component, Category **Footprint Name**

Capacitors, Non Polarized Axial Diameter Horizontal Mounting..... **CAPAD** + Lead Spacing + **W** Lead Width + **L** Body Length + **D** Body Diameter
Example: **CAPAD800W52L600D150B**
Capacitors, Non Polarized Axial Diameter; Lead Spacing 8.00; Lead Width 0.52; Body Length 6.00; Body Diameter 1.50

Capacitors, Non Polarized Axial Rectangular .....**CAPAR** + Lead Spacing + **W** Lead Width + **L** Body Length + **T** Body thickness + **H** Body Height
Example: **CAPAR800W52L600T50H70B**
Capacitors, Non Polarized Axial; Lead Spacing 8.00; Lead Width 0.52; Body Length 6.00; Body Thickness 0.50; Body Height 0.70

Capacitors, Non Polarized Axial Diameter Vertical Mounting .....**CAPADV** + Lead Spacing + **W** Lead Width + **L** Body Length + **D** Body Diameter
Example: **CAPADV300W52L600D150B**
Capacitors, Non Polarized Axial; Lead Spacing 3.00; Lead Width 0.52; Body Length 6.00; Body Diameter 1.50mm

Capacitors, Non Polarized Axial Rect. Vert. Mtg. **CAPARV** + Lead Spacing + **W** Lead Width + **L** Body Length + **T** Body Thickness + **H** Body Height
Example: **CAPARV300W52L600T50H70B**
Capacitors, Non Polarized Axial Rect. Vertical; Lead Spacing 8.00; Lead Width 0.52; Body Length 6.00; Body Thickness 0.50; Body Height 0.70

Capacitors, Non Polarized Radial Diameter.....**CAPRD** + Lead Spacing + **W** Lead Width + **D** Body Diameter + **H** Body Height
Example: **CAPRD200W52D300H550B**
Capacitors, Non Polarized Radial Diameter; lead spacing 2.00; lead width 0.52; Body Diameter 3.00; Height 5.50

Capacitors, Non Polarized Radial Rectangular.....**CAPRR** + Lead Spacing + **W** Lead Width + **L** Body Length + **T** Body thickness + **H** Body Height
Example: **CAPRR200W52L50T70H550B**
Capacitors, Non Polarized Radial Rectangular; lead spacing 2.00; lead width 0.52; Body Length 0.50; Body thickness 0.70; Height 5.50

Capacitors, Non Polarized Radial Disk Button.....**CAPRB** + Lead Spacing + **W** Lead Width + **L** Body Length + **T** Body thickness + **H** Body Height
Example: **CAPRB200W52L50T70H550B**
Capacitors, Non Polarized Radial Rectangular; lead spacing 2.00; lead width 0.52; Body Length 0.50; Body thickness 0.70; Height 5.50

Capacitors, Polarized Axial Diameter Horizontal Mounting .....**CAPPA** + Lead Spacing + **W** Lead Width + **L** Body Length + **D** Body Diameter
Example: **CAPPAD800W52L600D150B**
Capacitors, Polarized Axial Diameter; Lead Spacing 8.00; Lead Width 0.52; Body Length 6.00; Body Diameter 1.50

Capacitor, Polarized Radial Diameter.....**CAPPR** + Lead Spacing + **W** Lead Width + **D** Body Diameter + **H** Body Height
Example: **CAPPRD200W52D300H550B**
Capacitors, Polarized Radial Diameter; lead spacing 2.00; lead width 0.52; Body Diameter 3.00; Height 5.50

Diodes, Axial Diameter Horizontal Mounting.....**DIOAD** + Lead Spacing + **W** Lead Width + **L** Body Length + **D** Body Diameter
Example: **DIOAD800W52L600D150B**
Diodes, Non Polarized Axial Diameter; Lead Spacing 8.00; Lead Width 0.52; Body Length 6.00; Body Diameter 1.50

Diodes, Axial Diameter Vertical Mounting .....**DIOADV** + Lead Spacing + **W** Lead Width + **L** Body Length + **D** Body Diameter
Example: **DIOADV300W52L600D150B**
Diodes, Non Polarized Axial; Lead Spacing 8.00; Lead Width 0.52; Body Length 6.00; Body Diameter 1.50

Dual-In-Line Packages.....**DIP** + Lead Span + **W** Lead Width + **P** Pin Pitch + **L** Body Length + **H** Component Height + **Q** Pin Qty
Example: **DIP762W52P254L1905H508Q14B**
Dual-In-Line Package: Lead Span 7.62; Lead Width 0.52; Pin Pitch 2.54; Body Length 19.05; Body Height 5.08; Pin Qty 14

Dual-In-Line Sockets.....**DIPS** + Lead Span + **W** Lead Width + **P** Pin Pitch + **L** Body Length + **H** Component Height + **Q** Pin Qty
Example: **DIPS762W52P254L1905H508Q14B**
Dual-In-Line Package Socket: Lead Span 7.62; Lead Width 0.52; Pin Pitch 2.54; Body Length 19.05; Body Height 5.08; Pin Qty 14

Transistor Outline, Flange Mount, Horizontal..... **TO** + Pin Pitch **P** + Body Length **X** Body Width **X** Height Max – Pin Qty
Example: **TO170P2207X1028X470-5A**
Transistor Outline, Flange Mount: 1.70 Pin Pitch; 22.07 Body Length; 10.28 Body Width; 4.70 Height; 5 pins; Fabrication Level A

Transistor Outline, Flange Mount, Vertical..... **TO** + Pin Pitch **P** + Body Length **X** Body Width **X** Height Max – Pin Qty
Example: **TO127P817X1028X2084-5A**
Transistor Outline, Flange Mount: 1.27 Pin Pitch; 8.17 Body Length; 10.28 Body Width; 20.84 Height; 5 pins; Fabrication Level A

Transistor Outline, Cylindrical..... **TO** + Pin Pitch **P** + Body Diameter **X** Height Max – Pin Qty
Example: **TO508R895X660-4A**
Transistor Outline, Cylindrical: 5.08 Pin Radius; 8.95 Body Diameter; 6.60 Height; 5 pins; Fabrication Level A

Header, vertical,2.54mm pitch;0.635mm lead width,20 pins,2 rows,10 pins per row,25.40mm L X 2.54mm W X 8.38mm H body
HDRV20W64P254_2X10_2540X254X838P – Example: vertical header, 2 rows by 20 pins:
Headers, Right Angle ... **HDRV** + total Pins + **W** Lead Width + **P** Row Pitch (+ **X** Column Pitch [if different]) + _ Row s + **X** Pins per Row + _ Body Length + **X** Body Thickness + **X** Component Height + Fabrication Level

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Header, right angle, 2.54mm pitch; 0.635mm lead width, 20 pins, 2 rows, 10 pins per row, 25.40mm L X 2.54mm W X 5.08mm H body
HDRRA20W64P254_2X10_2540X254X508P – Example: right angle header, 2 rows by 20 pins:
Headers, Right Angle **HDRRA** + total Pins + **W** Lead Width + **P** Row Pitch (+ **X** Column Pitch [if different]) + _ Row s + **X** Pins per Row + _ Body Length + **X** Body Thickness + **X** Component Height + Fabrication Level

Header, vertical, 2.54mm pitch; 0.635mm lead width, 50 pins, 3 rows, 25 pins per row, 63.50mm L X 2.54mm W X 8.38mm H body
HDRV50W64P254_3X25_6350X254X838P – Example: vertical header, 3 rows by 25 pins with 25 missing ping pins:
Headers, Vertical **HDRV** + Total Pins + **W** Lead Width + **P** Row Pitch (+ **X** Column Pitch [if different]) + _ Row s + **X** Pins per Row + _ Body Length + **X** Body Thickness + **X** Component Height + Fabrication Level

Inductors, Axial Diameter Horizontal Mounting .....**INDAD** + Lead Spacing + **W** Lead Width + **L** Body Length + **D** Body Diameter
Example: **INDAD800W52L600D150B**
Inductors, Axial Diameter; Lead Spacing 8.00; Lead Width 0.52; Body Length 6.00; Body Diameter 1.50

Inductors, Axial Diameter Vertical Mounting ..... **INDADV** + Lead Spacing + **W** Lead Width + **L** Body Length + **D** Body Diameter
Example: **INDADV300W52L600D150B**
Inductors, Axial Diameter Vertical Mounting; Lead Spacing 3.00; Lead Width 0.52; Body Length 6.00; Body Diameter 1.50

Jumpers, Wire.....**JUMP** + Lead Spacing + **W** Lead Width
Example: **JUMP500W52B**
Jumper; Lead Spacing 5.00; Lead Width 0.52

Mounting hole for ANSI size 6 with flat washer, tight fitting, non-plated; 3.85mm dia. hole, 8.7mm land, with 6 vias
Example: **MTGNP870H385V6P**
Mounting hole,.....**MTG** + **NP** (non-plated) + Land Size + **H** + Hole Size + **V** + No. of vias + Fab Level

Mounting hole for Metric size M3.5 pan head, tight fitting, plated; 3.85mm dia. hole, 7.35mm land
Example: **MTGP735H385Z735P**
Mounting hole,.....**MTG** + **P** (plated) + Land Size + **H** + Hole Size + **Z** + Anti-pad size + Fab Level

Mounting hole for size 2.75 mm, loose fitting, plated; 2.9mm dia. hole, 4mm land
Example: **MTGP400H290Z400P**
Mounting hole,..... **MTG** + **NP** (plated) + Land Size + **H** + Hole Size + **Z** + Anti-pad size + Fab Level

Example – clearance hole:
Mounting hole for size 2.25 mm, tight fitting, non-plated; 2.6mm dia. hole,1.3mm land
Example: **MTGNP130H260Z130P**
Mounting hole,..... **MTG** + **NP** (non-plated) + Land Size + **H** + Hole Size + **Z** + Anti-pad size + Fab Level

Oscillators .....**OSC** + Lead Span + **W** Lead Diameter + **P** Pin Pitch + **L** Body Length + **H** Component Height + **Q** Pin Qty
Example for 8 pin Oscillator: **OSC762W46P762L1320H600Q8B**
Oscillator: Lead Span 7.62; Lead Diameter 0.46; Pin Pitch 762; Body Length 13.20; Body Height 6.00; Pin Qty 8

Example for 14 pin Oscillator: **OSC762W53P1524L2080H508Q14B**
Oscillator: Lead Span 7.62; Lead Diameter 0.53; Pin Pitch 762; Body Length 20.80; Body Height 508; Pin Qty 14

Pin Grid Array's.....**PGA** + Pin Qty + **P** Pitch + **C** Pin Columns + **R** Pin Rows + **L** Body Length **X** Body Width + **H** Component Height
Example: **PGA84P254C10R10L2500X2500H300B**
Pin Grid Array: Pin Qty 84; Pin Pitch 2.54; Columns 10; Rows 10; Body Length 25.00 X 25.00; Component Height 3.00

Resistors, Axial Diameter Horizontal Mounting.....**RESAD** + Lead Spacing + **W** Lead Width + **L** Body Length + **D** Body Diameter
Example: **RESAD800W52L600D150B**
Resistors, Axial Diameter; Lead Spacing 8.00; Lead Width 0.52; Body Length 6.00; Body Diameter 1.50

Resistors, Axial Diameter Vertical Mounting ..... **RESADV** + Lead Spacing + **W** Lead Width + **L** Body Length + **D** Body Diameter
Example: **RESADV300W52L600D150B**
Resistors, Axial Diameter Vertical Mounting; Lead Spacing 3.00; Lead Width 0.52; Body Length 6.00; Body Diameter 1.50

Resistors, Axial Rectangular Horizontal Mounting ..**RESAR** + Lead Spacing + **W** Lead Width + **L** Body Length + **T** Body thickness + **H** Body Height
Example: **RESAR800W52L600T50H70B**
Resistors, Axial Rectangular; Lead Spacing 8.00; Lead Width 0.52; Body Length 6.00; Body Thickness 0.50; Body Height 0.70

Single-In-Line Packages..... **SIP** + Body Width + **W** Lead Width + **P** Pin Pitch + **L** Body Length + **H** Component Height + **Q** Pin Qty
Example: **SIP150W52P254L1905H508Q8B**
Single-In-Line Package: Body Width 1.5; Lead Width 0.52; Pin Pitch 2.54; Body Length 19.05; Body Height 5.08; Pin Qty 8

Test Point; 0.635mm lead width, round, 2.54mm Diameter X 5.84mm H body height.
TPCW64D254H584P – Example: round test point with round or square lead:
Test Points,.....**TP** + **C** + **W** + Lead Width + **D** + Body Diameter + **H** + Height + Fab Level

Test Point; 0.635mm lead width, square, 2.54mm W X 5.84mm H body.
TPRW64L254H584P – Example: square test point with round or square lead:
Test Points,.....**TP** + **R** + **W** + Lead Width + **L** + Body Size + **H** + Height + Fab Level

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The land pattern naming convention uses component dimensions to derive the land pattern name.
The first 3 – 6 characters in the land pattern name describe the component family.
The first number in the land pattern name refers to the Lead Spacing or hole to hole location to insert the component lead.
All numbers that follow the Lead Spacing are component dimensions.

These characters are used as component body identifiers that precede the value and this is the priority order of the component body identifiers –
P = Pitch for components with more than two leads
W = Maximum Lead Width (or Component Lead Diameter)
L = Body Length for horizontal mounting
D = Body Diameter for round component body
T = Body Thickness for rectangular component body
H = Height for vertically mounted components
Q = Pin Quantity for components with more than two leads
R = Number of Rows for connectors
A, **B** & **C** = the fabrication complexity level as defined in the IPC-2221 and IPC-2222

Notes:
All component body values are in millimeters and go two places to the right of the decimal point and no leading zeros.
All Complexity Levels used in the examples are "**B**".