

Footprint naming convention as used
by the IPC-7351B and the PCB Library
Expert, the industry's first footprint
and 3D model automation tool to
adopt this new guideline.

Library Expert Footprint Naming Convention

PCB Libraries, Inc.

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Library Expert Naming Convention for Standard SMD Land Patterns

Note: The component manufacturer's abbreviated name followed by a hyphen can be used as a prefix for the elimination of duplicate footprint names. When the package tolerances deviate from one manufacturer to the next, the resulting footprint pad size and courtyard will be different but the footprint name will be the same. So in order to discriminate between various manufacturer's package tolerances, we recommend that you use the component manufacturer's abbreviated name followed by a hyphen as the footprint name prefix. Example: TI-QFN50P350X350X100-19_15T205X205 = Texas Instruments QFN for the RHL Case code. See **Appendix I** for at the end of this document for the full list of all component manufacturer name abbreviations.

Component, Category

Footprint Name

Ball Grid Array's.....	BGA + Pin Qty + C or N + Pitch P + Ball Columns X Ball Rows _ Body Length X Body Width X Height
BGA w/Dual Pitch	BGA + Pin Qty + C or N + Col Pitch X Row Pitch P + Ball Columns X Ball Rows _ Body Length X Body Width X Height
BGA w/Staggered Pins.....	BGAS + Pin Qty + C or N + Pitch P + Ball Columns X Ball Rows _ Body Length X Body Width X Height
BGA Note: The C or N = Collapsing or Non-collapsing Balls	
Capacitors, Chip, Array, Concave.....	CAPCAV + Pitch P + Body Length X Body Width X Height - Pin Qty
Capacitors, Chip, Array, Flat	CAPCAF + Pitch P + Body Length X Body Width X Height - Pin Qty
Capacitors, Chip.....	CAPC + Body Length + Body Width X Height
Capacitors, Polarized, Chip	CAPPC + Body Length + Body Width X Height
Capacitors, Dual Flat No-lead	CAPDFN + Body Length + Body Width X Height
Capacitors, Polarized, Dual Flat No-lead.....	CAPPDFN + Body Length + Body Width X Height
Capacitors, Molded	CAPM + Body Length + Body Width X Height
Capacitors, Polarized, Molded.....	CAPPM + Body Length + Body Width X Height
Capacitors, Aluminum Electrolytic	CAPAE + Base Body Size X Height
Ceramic Flat Packages	CFP127P + Lead Span Nominal X Height - Pin Qty
Column Grid Array, Circular Lead	CGA + Pin Qty + C + Pitch P + Pin Columns X Pin Rows _ Body Length X Body Width X Height
Pillar Column Grid Array	PCGA + Pin Qty + S + Pitch P + Pin Columns X Pin Rows _ Body Length X Body Width X Height
Crystals (2 leads)	XTAL + Body Length X Body Width X Height
Crystals, Dual Flat No-lead.....	XTALDFN + Body Length X Body Width X Height
Crystals, Side Concave	XTALSC + Body Length X Body Width X Height
Diodes, Chip	DIOC + Body Length + Body Width X Height
Diodes, Dual Flat No-lead	DIODFN + Body Length X Body Width X Height - Pin Qty
Diodes, Molded	DIOM + Body Length + Body Width X Height
Diodes, Non-polarized Chip	DIONC + Body Length + Body Width X Height
Diodes, Non-polarized Molded.....	DIONM + Body Length + Body Width X Height
Diodes, MELF.....	DIOMELF + Body Length + Body Diameter
Diodes, Side Concave, 2 Pin.....	DIOSC + Body Length X Body Width X Height - Pin Qty
Diodes, Side Concave, 4 Pin.....	DIOSC + Pitch P + Body Length X Body Width X Height - Pin Qty
Ferrite Bead, Chip.....	BEADC + Body Length + Body Width X Height
Fuses, Chip	FUSC + Body Length + Body Width X Height
Fuses, Dual Flat No-Lead	FUSDFN + Body Length + Body Width X Height
Fuses, Molded	FUSM + Body Length + Body Width X Height
Fuses, Side Concave.....	FUSSC + Body Length + Body Width X Height
Inductors, Chip	INDC + Body Length + Body Width X Height
Inductors, Chip, Array, Concave	INDCAV + Pitch P + Body Length X Body Width X Height - Pin Qty
Inductors, Chip, Array, Flat.....	INDCAF + Pitch P + Body Length X Body Width X Height - Pin Qty
Inductors, Dual Flat No-lead	INDDFN + Body Length + Body Width X Height
Inductors, Molded	INDM + Body Length + Body Width X Height
Inductors, Precision, Molded.....	INDPM + Body Length + Body Width X Height
Inductors, Side Concave	INDSC + Body Length + Body Width X Height
Land Grid Array, Circular Lead	LGA + Pin Qty + C + Pitch P + Pin Columns X Pin Rows _ Body Length X Body Width X Height
Land Grid Array, Square Lead	LGA + Pin Qty + S + Pitch P + Pin Columns X Pin Rows _ Body Length X Body Width X Height
LED's, Chip	LED + Body Length + Body Width X Height
LED's, Dual Flat No-lead	LEDDFN + Body Length + Body Width X Height
LED's, Molded.....	LEDM + Body Length + Body Width X Height
LED's, Side Concave, 2 Pin	LEDSC + Body Length X Body Width X Height - Pin Qty
LED's, Side Concave, 4 Pin	LEDSC + Pitch P + Body Length X Body Width X Height - Pin Qty
Oscillators, Dual Flat No-lead	OSCDFN + Pitch P + Body Length X Body Width X Height - Pin Qty
Oscillators, Side Concave.....	OSCS + Pitch P + Body Length X Body Width X Height - Pin Qty
Oscillators, Side Flat	OSCSF + Pitch P + Body Length X Body Width X Height - Pin Qty
Oscillators, J-Lead	OSCI + Pitch P + Body Length X Body Width X Height - Pin Qty
Oscillators, L-Bend Lead	OSCL + Pitch P + Body Length X Body Width X Height - Pin Qty
Oscillators, Corner Concave.....	OSCCC + Body Length X Body Width X Height
Plastic Leaded Chip Carriers	PLCC + Pitch P + Lead Span L1 X Lead Span L2 Nominal X Height - Pin Qty
Plastic Leaded Chip Carrier Sockets Square.....	PLCCS + Pitch P + Lead Span L1 X Lead Span L2 Nominal X Height - Pin Qty
Quad Flat Packages	QFP + Pitch P + Lead Span L1 X Lead Span L2 Nominal X Height - Pin Qty
Ceramic Quad Flat Packages.....	CQFP + Pitch P + Lead Span L1 X Lead Span L2 Nominal X Height - Pin Qty
Quad Flat No-lead	QFN + Pitch P + Body Length X Body Width X Height - Pin Qty + Thermal Pad
Pull-back Quad Flat No-lead	PQFN + Pitch P + Body Length X Body Width X Height - Pin Qty + Thermal Pad

Quad Leadless Ceramic Chip Carriers	LCC + Pitch P + Body Length X Body Width X Height - Pin Qty
Quad Leadless Ceramic Chip Carriers (Pin 1 on Side)	LCCS + Pitch P + Body Length X Body Width X Height - Pin Qty
Resistors, Chip	RESC + Body Length + Body Width X Height
Resistors, Chip, Array, Concave	RESCAV + Pitch P + Body Length X Body Width X Height - Pin Qty
Resistors, Chip, Array, Convex, E-Version (Even Pin Size)	RESCAXE + Pitch P + Body Length X Body Width X Height - Pin Qty
Resistors, Chip, Array, Convex, S-Version (Side Pins Diff)	RESCAXS + Pitch P + Body Length X Body Width X Height - Pin Qty
Resistors, Chip, Array, Flat	RESCAF + Pitch P + Body Length X Body Width X Height - Pin Qty
Resistors, Dual Flat No-lead	RESDFN + Body Length X Body Width X Height - Pin Qty
Resistors, MELF	RESMELF + Body Length + Body Diameter
Resistors, Molded	RESM + Body Length + Body Width X Height
Resistors, Side Concave	RESSC + Body Length + Body Width X Height
Small Outline Diodes, Flat Lead	SODFL + Lead Span Nominal + Body Width X Height
Small Outline IC, J-Leaded	SOJ + Pitch P + Lead Span Nominal X Height - Pin Qty
Small Outline IC, L-Leaded	SOL + Pitch P + Lead Span Nominal X Height - Pin Qty
Small Outline Integrated Circuit, (50 mil Pitch SOIC)	SOIC127P + Lead Span Nominal X Height - Pin Qty
Small Outline Packages	SOP + Pitch P + Lead Span Nominal X Height - Pin Qty
Small Outline No-lead	SON + Pitch P + Body Length X Body Width X Height - Pin Qty + Thermal Pad
Thermistors, Chip	THRMC + Body Length + Body Width X Height
Pull-back Small Outline No-lead	PSON + Pitch P + Body Length X Body Width X Height - Pin Qty + Thermal Pad
Small Outline Transistors, Flat Lead	SOTFL + Pitch P + Lead Span Nominal X Height - Pin Qty
SOD (Example: SOD3717X135 = JEDEC SOD123)	SOD + Lead Span Nominal + Body Width X Height
SOT143 & SOT343 (JEDEC Standard Package)	SOT + Pitch P + Lead Span Nominal X Height - Pin Qty
SOT143 & SOT343 Reverse (JEDEC Standard Package)	SOT + Pitch P + Lead Span Nominal X Height - Pin Qty + R
SOT23 & SOT223 Packages (Example: SOT230P700X180-4)	SOT + Pitch P + Lead Span Nominal X Height - Pin Qty
TO (Generic DPAK - Example: TO228P970X238-3)	TO + Pitch P + Lead Span X Height - Pin Qty
Transistors, Dual Flat No-lead	TRXDFN + Body Length X Body Width X Height - Pin Qty
Varistors, Chip	VARC + Body Length + Body Width X Height

Land Pattern Naming Convention Notes

- All dimensions are in Metric Units
- All Lead Span and Height numbers go two places past the decimal point and “include” trailing Zeros
- All Lead Span and Body Sizes go two place before the decimal point and “remove” leading Zeros
- All Chip Component Body Sizes are one place to each side of the decimal point
- Pitch Values are two places to the right & left of decimal point with no leading Zeros but include trailing zeros

Naming Convention Special Character Use for Footprints

The **_** (underscore) is the separator between pin qty. in Hidden & Deleted pin components and to append modifiers at the end

The **-** (dash) is used to separate the pin qty.

The **X** (capital letter X) is used instead of the word “by” to separate two numbers such as height **X** width like “Quad Packages”.

Suffix Naming Convention for Footprints

Common SMD Land Pattern to Describe Environment Use (This is the last character in every name)

Note: This excludes the BGA component family as they only come in the Nominal Environment Condition

- **M** Most Material Condition (Density Level A)
- **N** Nominal Material Condition (Density Level B)
- **L** Least Material Condition (Density Level C)

Components with Hidden, Deleted or Reversed pins

Reverse Pin Order (or Mirrored Part)

- **-20RN** 20 pin part, Reverse Pin Order, Nominal Environment

Hidden Pins

- **-20_24N** 20 pin part in a 24 pin package. The pins are numbered 1 – 24 the hidden pins are skipped. The schematic symbol displays up to 24 pins.

Deleted Pins

- **-24_20N** 20 pin part in a 24 pin package. The pins are numbered 1 – 20. The schematic symbol displays 20 pins.

Library Expert Naming Convention for Standard PTH* Land Patterns

Component, Category

Footprint Name

Capacitors, Non Polarized Axial Diameter Horizontal Mounting.....**CAPAD** + Lead Spacing + **W** Lead Width + **L** Body Length + **D** Body Diameter

Example: **CAPAD800W52L600D150**

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: **CAPAR800W52L600T50H70**

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: **CAPADV300W52L600D150**

Capacitors, Non Polarized Axial; Lead Spacing 3.00; Lead Width 0.52; Body Length 6.00; Body Diameter 1.50 mm

Capacitors, Non Polarized Axial Rect. Vert. Mtg. **CAPARV** + Lead Spacing + **W** Lead Width + **L** Body Length + **T** Body Thickness + **H** Body Height

Example: **CAPARV300W52L600T50H70**

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: **CAPRD200W52D300H550**

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: **CAPRR200W52L50T70H550**

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: **CAPRB200W52L50T70H550**

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: **CAPPAD800W52L600D150**

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: **CAPPRD200W52D300H550**

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: **DIOAD800W52L600D150**

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: **DIOADV300W52L600D150**

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: **DIP762W52P254L1905H508Q14**

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

Ceramic Dual-In-Line Packages **CDIP** + Lead Span + **W** Lead Width + **P** Pin Pitch + **L** Body Length + **H** Component Height + **Q** Pin Qty

Example: **CDIP762W52P254L1905H508Q14**

Ceramic 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 Packages with Cavity **DIPC** + Lead Span + **W** Lead Width + **P** Pin Pitch + **L** Body Length + **H** Component Height + **Q** Pin Qty

Example: **DIPC762W52P254L1905H508Q14**

Dual-In-Line Package with Cavity: 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: **DIPS762W52P254L1905H508Q14**

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: **TO170P2207X1028X470-5**

Transistor Outline, Flange Mount: 1.70 Pin Pitch; 22.07 Body Length; 10.28 Body Width; 4.70 Height; 5 pins

Transistor Outline, Flange Mount, Vertical..... **TO** + Pin Pitch **P** + Body Length **X** Body Width **X** Height Max – Pin Qty

Example: **TO127P817X1028X2084-5**

Transistor Outline, Flange Mount: 1.27 Pin Pitch; 8.17 Body Length; 10.28 Body Width; 20.84 Height; 5 pins

Transistor Outline, Cylindrical..... **TO** + Pin Pitch **P** + Body Diameter **X** Height Max – Pin Qty

Example: **TO508R895X660-4**

Transistor Outline, Cylindrical: 5.08 Pin Radius; 8.95 Body Diameter; 6.60 Height; 5 pins

Header, vertical, 2.54 mm pitch; 0.635 mm lead width, 20 pins, 2 rows, 10 pins per row, 25.40 mm L X 2.54 mm W X 8.38 mm H body
HDRV20W64P254_2X10_2540X254X838 – 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 + Proportional Pad Stacks

Header, right angle, 2.54 mm pitch; 0.635 mm lead width, 20 pins, 2 rows, 10 pins per row, 25.40 mm L X 2.54 mm W X 5.08 mm H body
HDRRA20W64P254_2X10_2540X254X508 – 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 + Proportional Pad Stacks

Header, vertical, 2.54 mm pitch; 0.635 mm lead width, 50 pins, 3 rows, 25 pins per row, 63.50 mm L X 2.54 mm W X 8.38 mm H body
HDRV50W64P254_3X25_6350X254X838 – Example: vertical header, 3 rows by 25 pins with 25 missing 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 + Proportional Pad Stacks

Inductors, Axial Diameter Horizontal Mounting..... **INDAD** + Lead Spacing + **W** Lead Width + **L** Body Length + **D** Body Diameter
 Example: **INDAD800W52L600D150**
 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: **INDADV300W52L600D150**
 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: **JUMP500W52**
 Jumper; Lead Spacing 5.00; Lead Width 0.52

Mounting hole, plated; 8.70 mm land, 3.85 mm dia. hole, with 6 satellite vias
 Example: **MTGP870H385V6**
 Mounting Hole..... **MTG** + **P** (plated) + Land Size + **H** + Hole Size + **V** + No. of vias

Mounting hole, plated; 7.35 mm land, 3.85 mm dia. hole
 Example: **MTGP735H385**
 Mounting Hole..... **MTG** + **P** (plated) + Land Size + **H** + Hole Size

Mounting hole, non-plated, land = 50% of hole size but not the exceed 1.00 mm; 2.90 mm dia. hole, 3.89 mm anti-pad
 Example: **MTGNP100H290Z389**
 Mounting Hole..... **MTG** + **NP** (non-plated) + Inner Land Size + **H** + Hole Size + **Z** + Anti-pad size

Mounting hole, non-plated with annular ring 5.00 mm land; 2.90 mm dia. hole, 3.89 mm anti-pad
 Example: **MTGNPA500H290Z389**
 Mounting Hole..... **MTG** + **NP** (non-plated) + **A** + Land Size + **H** + Hole Size + **Z** + Anti-pad size

Oscillators **OSC** + Lead Span + **W** Lead Diameter + **P** Pin Pitch + **L** Body Length + **H** Component Height + **Q** Pin Qty
 Example for 8 pin Oscillator: **OSC762W46P762L1320H600Q8**
 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: **OSC762W53P1524L2080H508Q14**
 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: **PGA84P254C10R10L2500X2500H300**
 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: **RESAD800W52L600D150**
 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: **RESADV300W52L600D150**
 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: **RESAR800W52L600T50H70**
 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: **SIP150W52P254L1905H508Q8**
 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; 0.635 mm lead width, round, 2.54 mm Diameter X 5.84 mm H body height.
TPCW64D254H584 – Example: round test point with round or square lead:
 Test Points, **TP** + **C** + **W** + Lead Width + **D** + Body Diameter + **H** + Height

Test Point; 0.635 mm lead width, square, 2.54 mm W X 5.84 mm H body.
TPRW64L254H584 – Example: square test point with round or square lead:

Test Points, **TP + R + W + Lead Width + L + Body Size + H + Height**

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

Note: All component body values are in millimeters and go two places to the right of the decimal point and no leading zeros.

*PTH – Plated Through Hole