

**Series Number**

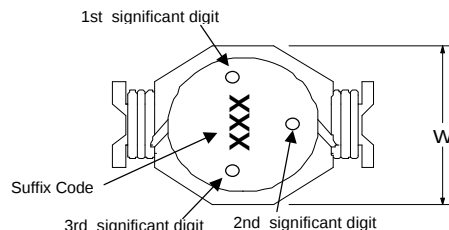
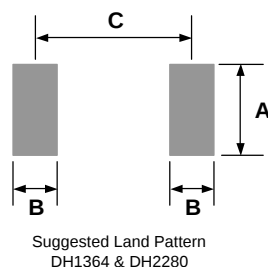
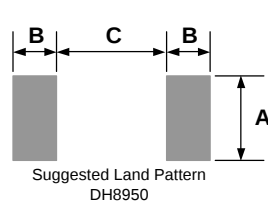
DH8950  
DH1364  
DH2280



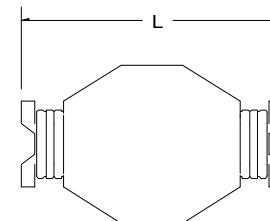
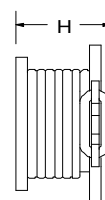
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**SMD Unshielded Self-Leaded Inductor ; Part Numbering Sequence: ( Series Number ) - ( Suffix Code )(Tolerance), example DH1364-100M**  
**Bulk Packaging add (-B) to end of Part Numbering Sequence. example DH1364-100M-B**



Parts will be marked with Significant Digit Dots OR Suffix code



| Series Number | Units  | Maximum Dimensions |           |          | Nominal Dimensions |          |           |
|---------------|--------|--------------------|-----------|----------|--------------------|----------|-----------|
|               |        | L                  | W         | H        | A                  | B        | C         |
| DH8950        | inches | 0.362"             | 0.252"    | 0.197"   | 0.160"             | 0.075"   | 0.200"    |
|               | [ mm ] | [ 9.19 ]           | [ 6.40 ]  | [ 5.00 ] | [ 4.06 ]           | [ 1.91 ] | [ 5.08 ]  |
| DH1364        | inches | 0.522"             | 0.392"    | 0.250"   | 0.160"             | 0.060"   | 0.400"    |
|               | [ mm ] | [ 13.26 ]          | [ 9.96 ]  | [ 6.35 ] | [ 4.06 ]           | [ 1.52 ] | [ 10.16 ] |
| DH2280        | inches | 0.880"             | 0.640"    | 0.315"   | 0.340"             | 0.125"   | 0.690"    |
|               | [ mm ] | [ 22.35 ]          | [ 16.26 ] | [ 8.00 ] | [ 8.64 ]           | [ 3.18 ] | [ 17.53 ] |

**Features:**

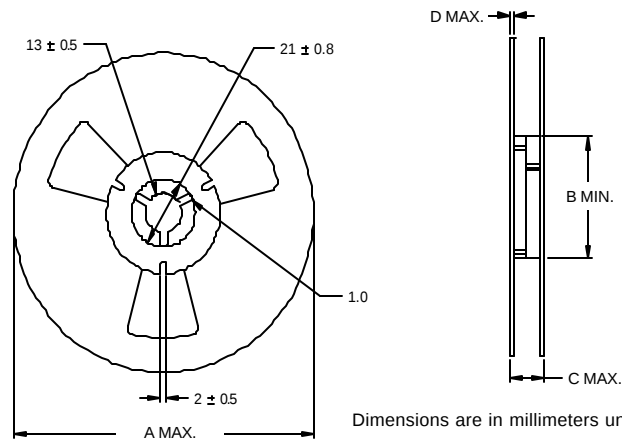
- High energy storage and low resistance
- Ideal for DC-DC step-up or step-down conversion
- Reliable surface mounting, flat top for pick and place
- Robust temperature deflection to prevent

| L <sup>1</sup><br>μH | Suffix<br>Codes | DH8950                |                                    |                               |                                  | DH1364                |                                    |                               |                                  | DH2280                |                                    |                               |                                  | Significant Digit |                 |                 |
|----------------------|-----------------|-----------------------|------------------------------------|-------------------------------|----------------------------------|-----------------------|------------------------------------|-------------------------------|----------------------------------|-----------------------|------------------------------------|-------------------------------|----------------------------------|-------------------|-----------------|-----------------|
|                      |                 | DCR <sup>2</sup><br>W | I <sub>SAT</sub> <sup>4</sup><br>A | I <sub>RMS</sub> <sup>5</sup> | Tolerance<br>Suffix <sup>6</sup> | DCR <sup>2</sup><br>W | I <sub>SAT</sub> <sup>3</sup><br>A | I <sub>RMS</sub> <sup>5</sup> | Tolerance<br>Suffix <sup>6</sup> | DCR <sup>2</sup><br>W | I <sub>SAT</sub> <sup>3</sup><br>A | I <sub>RMS</sub> <sup>5</sup> | Tolerance<br>Suffix <sup>6</sup> | 1st<br>Dot Code   | 2nd<br>Dot Code | 3rd<br>Dot Code |
| 0.33                 | R33             |                       |                                    |                               |                                  | 0.002                 | 20.0                               | 16.0                          | M                                |                       |                                    |                               |                                  | Orange            | Orange          | Brown           |
| 0.56                 | R56             | 0.010                 | 7.7                                | 6.00                          | M                                |                       |                                    |                               |                                  |                       |                                    |                               |                                  | Green             | Blue            | Brown           |
| 0.68                 | R68             |                       |                                    |                               |                                  | 0.005                 | 13.0                               | 12.0                          | M                                |                       |                                    |                               |                                  | Blue              | Grey            | Brown           |
| 0.78                 | R78             |                       |                                    |                               |                                  |                       |                                    |                               |                                  | 0.0026                | 30.0                               | 15.0                          | M                                | Violet            | Grey            | Brown           |
| 1.0                  | 1R0             |                       |                                    |                               |                                  | 0.006                 | 11.0                               | 10.0                          | M                                |                       |                                    |                               |                                  | Brown             | Black           | Red             |
| 1.2                  | 1R2             | 0.017                 | 5.3                                | 4.40                          | M                                |                       |                                    |                               |                                  |                       |                                    |                               |                                  | Brown             | Red             | Red             |
| 1.5                  | 1R5             |                       |                                    |                               |                                  | 0.008                 | 9.0                                | 9.0                           | M                                | 0.0040                | 25.0                               | 15.0                          | M                                | Brown             | Green           | Red             |
| 2.2                  | 2R2             | 0.035                 | 3.5                                | 3.10                          | M                                | 0.011                 | 7.8                                | 7.4                           | M                                | 0.0061                | 20.0                               | 12.0                          | M                                | Red               | Red             | Red             |
| 2.7                  | 2R7             |                       |                                    |                               |                                  | 0.012                 | 7.0                                | 6.6                           | M                                |                       |                                    |                               |                                  | Red               | Violet          | Red             |
| 3.3                  | 3R3             |                       |                                    |                               |                                  | 0.014                 | 6.4                                | 5.9                           | M                                | 0.0086                | 17.0                               | 10.0                          | M                                | Orange            | Orange          | Red             |
| 3.9                  | 3R9             |                       |                                    |                               |                                  |                       |                                    |                               |                                  | 0.0100                | 15.0                               | 9.0                           | M                                | Orange            | White           | Red             |
| 4.7                  | 4R7             | 0.054                 | 2.6                                | 2.20                          | M                                | 0.018                 | 5.4                                | 4.8                           | M                                | 0.0140                | 13.0                               | 8.4                           | M                                | Yellow            | Violet          | Red             |
| 6.0                  | 6R0             |                       |                                    |                               |                                  |                       |                                    |                               |                                  | 0.0170                | 12.0                               | 7.5                           | M                                | Blue              | Black           | Red             |
| 6.8                  | 6R8             |                       |                                    |                               |                                  | 0.035                 | 3.6                                | 4.5                           | M                                |                       |                                    |                               |                                  | Blue              | Grey            | Red             |
| 7.8                  | 7R8             |                       |                                    |                               |                                  |                       |                                    |                               |                                  | 0.0180                | 11.0                               | 7.5                           | M                                | Violet            | Grey            | Red             |
| 10                   | 100             | 0.111                 | 1.9                                | 1.50                          | M                                | 0.040                 | 3.30                               | 4.50                          | M                                | 0.0260                | 10.0                               | 6.0                           | M                                | Brown             | Black           | Orange          |
| 15                   | 150             | 0.170                 | 1.5                                | 1.20                          | M                                | 0.060                 | 2.40                               | 3.50                          | M                                | 0.0320                | 8.0                                | 4.4                           | M                                | Brown             | Green           | Orange          |
| 22                   | 220             | 0.250                 | 1.20                               | 1.00                          | M                                | 0.080                 | 2.00                               | 2.80                          | M                                |                       |                                    |                               |                                  | Red               | Red             | Orange          |
| 33                   | 330             | 0.370                 | 0.99                               | 0.82                          | M                                | 0.150                 | 1.70                               | 2.10                          | M                                |                       |                                    |                               |                                  | Orange            | Orange          | Orange          |
| 47                   | 470             | 0.470                 | 0.87                               | 0.72                          | M                                | 0.280                 | 1.40                               | 1.70                          | M                                |                       |                                    |                               |                                  | Yellow            | Violet          | Orange          |
| 68                   | 680             |                       |                                    |                               |                                  | 0.300                 | 1.20                               | 1.50                          | M                                |                       |                                    |                               |                                  | Blue              | Grey            | Orange          |
| 100                  | 101             |                       |                                    |                               |                                  | 0.400                 | 0.95                               | 1.2                           | M                                |                       |                                    |                               |                                  | Brown             | Black           | Yellow          |

- 1) Tolerance ±20%, Tested at 100kHz, 100mVrms @20°C. DH8950 series tested at 100kHz, 250mVrms @20°C.
- 2) DCRs (DC resistances) are maximums @20°C.
- 3) DC (Direct Current) current applied to produce a typical 10% drop from measured nominal inductance.
- 4) DC (Direct Current) current applied to produce a typical 30% drop from measured nominal inductance.
- 5) Current applied to produce a typical 40°C temperature rise from measured nominal inductance.
- 6) Tolerance M = ±20%

Specifications subject to change without notice

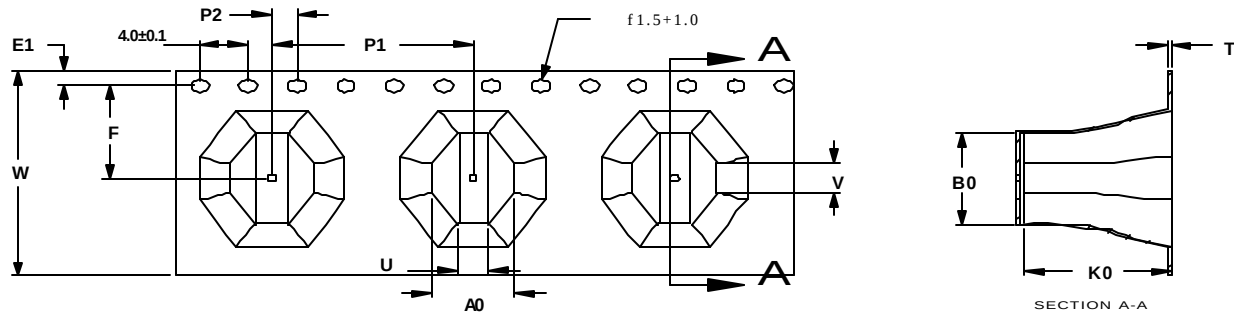
Call Toll Free: 888-978-2638 Website: [www.coev.net](http://www.coev.net)



Dimensions are in millimeters unless specified.

| Series Number | Reel dimensions |            |           |           |            |  | Reel Qty | Packaging Specification |
|---------------|-----------------|------------|-----------|-----------|------------|--|----------|-------------------------|
|               | Units           | A          | B         | C         | D          |  |          |                         |
| DH8950        | in.             | (B) 14.17" | (B) 3.94" | 0.882"    | (B) 0.098" |  | 1000     | 90-0061                 |
|               | [mm]            | [ 360 ]    | [ 100.0 ] | [ 22.4 ]  | [ 2.50 ]   |  |          |                         |
| DH1364        | in.             | (B) 14.17" | (B) 3.94" | (B) 1.20" | (B) 0.098" |  | 750      | 90-0055                 |
|               | [mm]            | [ 360 ]    | [ 100.0 ] | [ 30.4 ]  | [ 2.50 ]   |  |          |                         |
| DH2280        | in.             | (B) 14.17" | (B) 3.94" | (B) 1.98" | (B) 0.098" |  | 250      | 90-0064                 |
|               | [mm]            | [ 360 ]    | [ 100.0 ] | [ 50.4 ]  | [ 2.50 ]   |  |          |                         |

PACKAGING NOTE: Only pressure sensitive cover tape is to be used.



| Series | A0 ± 0.1 | U ± 0.1 | V ± 0.1 | P1 ± 0.1 | P2 ± 0.1 | W ± 0.3 | F ± 0.1 | E1 ± 0.1 | B0 ± 0.1 | K0 ± 0.05 | T ± 0.05 |
|--------|----------|---------|---------|----------|----------|---------|---------|----------|----------|-----------|----------|
| DH8950 | 6.65     | 4.70    | 2.90    | 12.00    | 2.00     | 16.00   | 7.50    | 1.75     | 9.45     | 4.70      | 0.35     |
| DH1364 | 10.30    | 5.80    | 4.00    | 16.00    | 2.00     | 24.00   | 11.50   | 1.75     | 13.50    | 5.70      | 0.35     |
| DH2280 | 15.40    | 8.10    | 5.30    | 24.00    | 2.00     | 44.00   | 20.20   | 1.75     | 22.50    | 6.90      | 0.35     |

**Customer Packaging Specifications**  
For Print Distribution to Customers

Series

**DH SERIES**

Revision

**B**

Sheet 2 of 3

| Item                                       | Specification                                                                                  | Test Method/Condition                                                                                                                                                                                                                                                                 |
|--------------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Environmental</b>                       |                                                                                                |                                                                                                                                                                                                                                                                                       |
| Static Humidity                            | After exposure part remains within specified electrical parameters for L, Q and DCR.           | Precondition at 25°C for 60 minutes. Expose parts to an environment of +40°C with 90 to 95% R.H. for 240 hours.                                                                                                                                                                       |
| Storage Life                               | After exposure part remains within specified electrical parameters for L, Q and DCR.           | Subject parts to an environment of 85°C 85% R.H. for 168 hours. After exposure allow parts to dry for 4 hours before measurements are taken.                                                                                                                                          |
| Temperature Cycle                          | After exposure part remains within specified electrical parameters for L, Q and DCR.           | 10 cycles (Air to Air) 1 cycle shall consist of:<br>30 minutes exposure to +85°C<br>30 minutes exposure to -40°C<br>Allow 20 minutes transition between extremes.                                                                                                                     |
| Temperature Shock                          | After exposure part remains within specified electrical parameters for L, Q and DCR.           | 10 cycles (Air to Air) 1 cycle shall consist of:<br>30 minutes exposure to -55°C<br>30 minutes exposure to +125°C<br>15 seconds maximum transition between temperatures                                                                                                               |
| <b>General</b>                             |                                                                                                |                                                                                                                                                                                                                                                                                       |
| Storage Temperature Range                  | -40°C to +85°C                                                                                 |                                                                                                                                                                                                                                                                                       |
| Operating Temperature Range                | -40°C to +85°C                                                                                 |                                                                                                                                                                                                                                                                                       |
| Flammability                               | IEC 695-2-2                                                                                    | Withstands needle-flame test                                                                                                                                                                                                                                                          |
| <b>Other</b>                               |                                                                                                |                                                                                                                                                                                                                                                                                       |
| Vibration                                  | After exposure part remains within specified electrical parameters for L, Q and DCR.           | 1 cycle of 30 minutes of the following:<br>5 - 7 Hz constant displacement of 0.75 inches, 5 minutes<br>7 - 30 Hz constant acceleration of 1.5 Gs, 10 minutes<br>31 - 50 Hz constant displacement of 0.33 inches, 5 minutes<br>50 - 500 Hz constant acceleration of 1.2 Gs, 10 minutes |
| Mechanical Shock                           | After exposure part remains within specified electrical parameters for L, Q and DCR.           | DH8950 Series - 2000 Gs per axis, 2 directions<br>DH1364 Series - 500 Gs per axis, 2 directions<br>DH2280 Series - 500 Gs per axis, 2 directions                                                                                                                                      |
| Solderability                              |                                                                                                | Dip pads in RMA flux, 63/37 solder (Sn/Pb) at 232°C for 5 seconds ±2 seconds.                                                                                                                                                                                                         |
|                                            | Wetting shall cover 90% minimum of each termination                                            |                                                                                                                                                                                                                                                                                       |
| Component Adhesion (Push Test)             | Component shall withstand 6 lb. push force minimum without delaminating from mounting surface. | Apply and measure force with a digital force gauge set.                                                                                                                                                                                                                               |
| Resistance to Solvent                      |                                                                                                | Withstands 6 minutes of alcohol.                                                                                                                                                                                                                                                      |
|                                            |                                                                                                | Withstands 3 minutes forced spray Freon TMS                                                                                                                                                                                                                                           |
| <b>Chemical</b>                            |                                                                                                |                                                                                                                                                                                                                                                                                       |
| Ionic Contamination                        | Conductivity:<br>pH:<br>Chlorides:<br>Sodium:<br>Potassium:                                    | 11 µOhms/cm maximum<br>5.5 to 9<br>65 ppm maximum<br>20 ppm maximum<br>10 ppm maximum                                                                                                                                                                                                 |
| <b>For Print Distribution to Customers</b> |                                                                                                | <b>Series</b>                                                                                                                                                                                                                                                                         |
|                                            |                                                                                                | <b>DH SERIES</b>                                                                                                                                                                                                                                                                      |
|                                            |                                                                                                | <b>Revision</b>                                                                                                                                                                                                                                                                       |
|                                            |                                                                                                | <b>B</b>                                                                                                                                                                                                                                                                              |
| <b>Sheet 3 of 3</b>                        |                                                                                                |                                                                                                                                                                                                                                                                                       |