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**Features**

High Permeability (30-80K), high impedance Z and high insertion attenuation  
 Suppresses the asymmetrical EMI currents  
 High saturation Flux density can reduce over voltage peaks  
 High Curie Temperature and excellent temperature characteristics

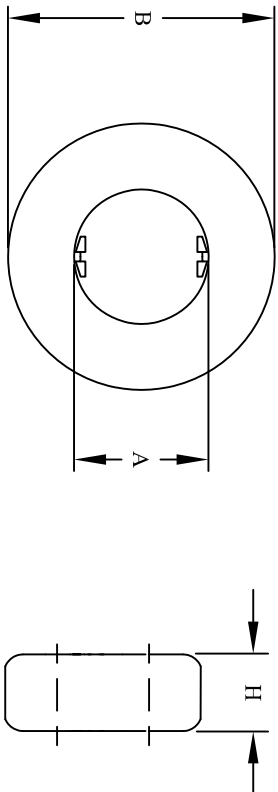
**CN50-30-20**

| REVISION HISTORY |     | SIGN & DATE |         |
|------------------|-----|-------------|---------|
| REV              | ECN | BY          | DATE    |
| A                |     | TN          | 5/10/18 |
|                  |     | JL          | 5/10/18 |

| DESCRIPTION        | BY | DATE    | APR. | DATE    |
|--------------------|----|---------|------|---------|
| Production release | TN | 5/10/18 | JL   | 5/10/18 |

| Electrical Specifications |                   |               |        |       |
|---------------------------|-------------------|---------------|--------|-------|
| Item                      | Units             | Condition     | Value  | Tol.  |
| $A_L$                     | nH/N <sup>2</sup> | @ 1kHz, 200mV | 84480  | ± 25% |
| $A_L$                     | nH/N <sup>2</sup> | @ 10kHz       | 76400  | ± 25% |
| $A_L$                     | nH/N <sup>2</sup> | @ 100kHz      | 29450  | ± 25% |
| Permeability              | $\mu_0$           | @ 10 kHz      | 50000  | ± 25% |
| $A_e$                     | cm <sup>2</sup>   | N/A           | 1.350  | ± 10% |
| $L_e$                     | cm                | N/A           | 12.900 | ± 10% |
| $L_e \times N_e$          | mA x turn         | @ 10 kHz      | 30     | ± 20  |
| $L_e \times N_e$          | mA x turn         | @ 100 kHz     | 30     | ± 20  |
| Saturation Flux Density   | T                 | N/A           | 1.200  | Max.  |
| Curie temperature         | °C                | N/A           | 580    | Nom.  |

| Dimensional Tolerances |          |       |        |      |
|------------------------|----------|-------|--------|------|
|                        | in       | tol.  | mm     | tol. |
| Core                   |          |       |        |      |
| B (Outer Diameter)     | 1.900    | ±0.40 | 48.350 | ±1   |
| H (Height)             | 0.520    | ±0.40 | 13.320 | ±1   |
| A (Inner Diameter)     | 1.680    | ±0.40 | 29.650 | ±1   |
| Case                   |          |       |        |      |
| B (Outer Diameter)     | 2.170    | ±0.40 | 55.220 | ±1   |
| H (Height)             | 0.980    | ±0.40 | 25.090 | ±1   |
| A (Inner Diameter)     | 0.990    | ±0.40 | 25.060 | ±1   |
| Weight                 | 170.10 g |       |        |      |



**For additional detail, specifications and charts see:**  
[http://www.bytemark.com/products/comp\\_nanoc\\_cmchoke.html](http://www.bytemark.com/products/comp_nanoc_cmchoke.html)  
[http://www.bytemark.com/products/Nanocrystalline\\_cores.html](http://www.bytemark.com/products/Nanocrystalline_cores.html)

| CODE IDENT                                      | MFG. P/N | DESCRIPTION                        | ITEM NO.                             |
|---|----------|------------------------------------|--------------------------------------|
| AUTOCAD SOLIDWORKS SIGN                         | X        | <b>PARTS LIST</b>                  |                                      |
| UNLESS OTHERWISE SPECIFIED                      |          | WWW.COILWS.COM                     | CWSBYTEMARK                          |
| DIMENSIONING AND TOLERANCE PER ANSI Y14.5M      |          | WWW.CWSBYTEMARK.COM                | 353 West Grove Ave. Orange, CA 92865 |
| ALL DIMENSIONS ARE IN INCHES AND [MILLIMETERS]. |          | TITLE: <b>Nanocrystalline Core</b> |                                      |
| TOLERANCE INCHES: .XX±.005                      | ±.0030°  | SIZE: <b>B</b>                     | DWG. NO. <b>CN50-30-20</b>           |
| XX±.127   | XX±.38   | SCALE: <b>N/A</b>                  | REV <b>A</b>                         |
| ANGLE PROJECTION                                |          |                                    |                                      |
| DO NOT SCALE DRAWING                            |          |                                    |                                      |