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## F-50-75

### Features

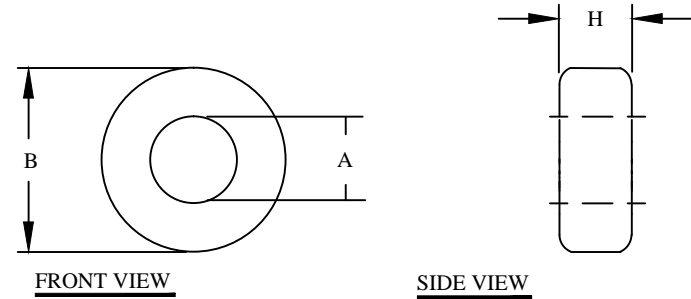
MnZn ferrite material with high permeability for broadband and pulse transformers applications. Also intended for common-mode inductor designs.

Burnished to break sharp edges, can contain Parylene C coat at smaller diameters from the length of 9.5mm (0.375") or a uniform coating of thermo-set plastic at larger dimensions (if part numbers ends with a C).

| REVISION HISTORY |     |                    |             |         |            |
|------------------|-----|--------------------|-------------|---------|------------|
| REV              | ECN | DESCRIPTION        | SIGN & DATE |         |            |
|                  |     |                    | BY          | DATE    | AP. DATE   |
| A                |     | Production release | EO          | 1/31/13 | JL 1/31/13 |
|                  |     |                    |             |         |            |

| Electrical Specifications            |                             |                               |                 |       |
|--------------------------------------|-----------------------------|-------------------------------|-----------------|-------|
| Item                                 | Unit/Symbol                 | Condition                     | Value           | Tol.  |
| A <sub>L</sub>                       | nH/N <sup>2</sup>           | @ 10 KHz                      | 2725            | ± 20% |
| L <sub>c</sub>                       | cm                          | N/A                           | 2.95            | ± 10% |
| A <sub>e</sub>                       | cm <sup>2</sup>             | N/A                           | 0.129           | ± 10% |
| V <sub>e</sub>                       | cm <sup>3</sup>             | N/A                           | 0.38            | ± 10% |
| Initial Permeability                 | μ <sub>0</sub>              | @ B < 10 gauss                | 5000            | ± 20% |
| Temp. Coeff. Of initial Permeability | %, °C                       | 20 - 70 °C                    | 0.6             | Typ.  |
| Coercive Force                       | H <sub>c</sub>              | oersted                       | 0.16            | Typ.  |
| Residual Flux Density                | Gauss, B <sub>r</sub>       | N/A                           | 1400            | Typ.  |
| Flux Density                         | Gauss, B                    | Initial (B), oersted          | 4300            | Typ.  |
|                                      | Gauss, H                    | @ Field Strength (H), oersted | 5               | Typ.  |
| Curie temperature                    | °C                          | T <sub>c</sub>                | > 140           | Nom.  |
| Resistivity                          | Ω cm, ρ                     | @ Field Strength              | 10 <sup>2</sup> | Typ.  |
| Loss Factor                          | 10 <sup>-6</sup> , tanδ / μ | Initial                       | 15              | Typ.  |
|                                      | MHz                         | @ Frequency                   | 0.1             | Typ.  |

| Dimensional Tolerances |        |         |       |        |
|------------------------|--------|---------|-------|--------|
|                        | in     | tol.    | mm    | tol.   |
| Case                   |        |         |       |        |
| B (Outer Diameter)     | 0.500  | ± 0.010 | 12.70 | ± 0.25 |
| A (Inner Diameter)     | 0.281  | ± 0.008 | 7.15  | ± 0.20 |
| H (Height)             | 0.188  | ± 0.010 | 4.90  | ± 0.25 |
| Weight                 | 2.00 g |         |       |        |



**For additional detail, specifications and charts see:**

[http://www.bytemark.com/products/ferrite\\_matl.htm](http://www.bytemark.com/products/ferrite_matl.htm)

| CODE IDENT           | MFG. P/N   | DESCRIPTION                                     | ITEM NO.  |
|----------------------|------------|---|---|
|                      |            | <b>PARTS LIST</b>                               |   |
| AUTOCAD              | X          | www.coilws.com<br>www.cwsbytemark.com           | CWSBYTEMARK<br>353 West Grove Ave. Orange, CA.<br>92865 |
| SOLIDWORKS           |            |   |   |
| DRAWN                | EO 1/31/13 | TITLE: Ferrite Toroid Core Material<br>75, MnZn |   |
| CHECKED              | JL 1/31/13 |   |   |
| ENGR.                | JL 1/31/13 |   |   |
| APPR.                | JL 1/31/13 | SIZE DWG. NO.                                   | REV   |
|                      |            | B F-50-75                                       | A   |
| DO NOT SCALE DRAWING |            | SCALE   | SHEET 1 OF 1  |
|                      |            | N/A   |   |