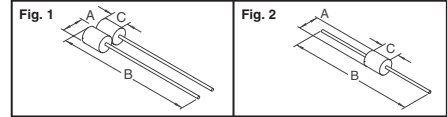


**Axial Lead Ferrite Beads for Broad Band EMI Filtering**

**Through Hole Applications**

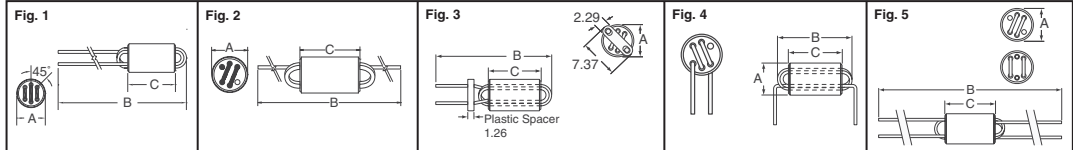
Steward's two-terminal axial lead ferrite beads provide economical filtering for differential mode EMI suppression applications. Constructed using a continuous 22 gauge conductor, these devices are able to withstand high peak currents that can destroy other surface mount devices. Through hole installation. Low DCR.



| Fig. | Dimensions – mm |       |       | Typical Impedance (Ω) |          | Current Rating I Max. (A) Continuous | Digi-Key Part No. | Cut Tape Pricing |      |       | Digi-Key Part No. | Tape and Reel |         |       |         | Steward Part No. |
|------|-----------------|-------|-------|-----------------------|----------|--------------------------------------|-------------------|------------------|------|-------|-------------------|---------------|---------|-------|---------|------------------|
|      | A               | B     | C     | @ 100MHz              | @ 300MHz |                                      |                   | 10               | 50   | 100   |                   | Qty.          | Pricing | Qty.  | Pricing |                  |
| 1    | 3.51            | 25.40 | 4.45  | 143                   | 165      | 5                                    | 240-2437-1-ND     | .98              | 4.23 | 7.80  | 240-2437-2-ND     | 1,800         | 46.00/M | 5,400 | 43.00/M | 28J0138-11R-10   |
| 2    | 3.51            | 59.00 | 4.45  | 75                    | 80       | 5                                    | 240-2438-1-ND     | .98              | 4.24 | 7.83  | 240-2438-2-ND     | 4,500         | 46.00/M | 9,000 | 43.00/M | 28L0138-10R-10   |
|      | 3.51            | 59.00 | 8.89  | 135                   | 138      | 5                                    | 240-2439-1-ND     | .91              | 3.93 | 7.26  | 240-2439-2-ND     | 4,500         | 42.00/M | 9,000 | 40.00/M | 28L0138-40R-10   |
|      | 3.51            | 59.00 | 13.97 | 220                   | 210      | 5                                    | 240-2440-1-ND     | 1.80             | 7.82 | 14.43 | 240-2440-2-ND     | 4,500         | 84.00/M | 9,000 | 79.00/M | 28L0138-70R-10   |
|      | 3.51            | 59.00 | 5.23  | 86                    | 78       | 5                                    | 240-2513-1-ND     | .96              | 4.18 | 7.71  | 240-2513-2-ND     | 4,500         | 45.00/M | 9,000 | 42.00/M | 28L0138-80R-10   |

**Wound Bead Chokes for Differential Mode EMI Filtering**

**Broad Band EMI Filtering - Through Hole**



Multi-aperture, multiple turn ferrite chokes. Three turn configurations provide lossy impedance over 1,000Ω. These parts offer excellent broadband frequency performance. Current rating is up to 5 Amps continuous operation.

| Fig. | Dimensions – mm |       |       | Typical Impedance (Ω) |          | Digi-Key Part No. | Pricing |      |       |       | Steward Part No. |
|------|-----------------|-------|-------|-----------------------|----------|-------------------|---------|------|-------|-------|------------------|
|      | A               | B     | C     | @ 50MHz               | @ 100MHz |                   | 1       | 10   | 50    | 100   |                  |
| 1    | 6.00            | 50.53 | 10.00 | 845                   | 1,000    | 240-2492-ND       | .39     | 3.27 | 14.09 | 25.36 | 28C0236-0EW-10   |
| 2    | 6.00            | 86.46 | 10.00 | 700                   | 835      | 240-2491-ND       | .39     | 3.27 | 14.09 | 25.36 | 28C0236-0BW-10   |
| 3    | 6.00            | 20.96 | 10.00 | 845                   | 1,000    | 240-2493-ND       | .51     | 4.26 | 18.38 | 33.08 | 28C0236-0JW-10   |
| 4    | 5.99            | 14.99 | 10.00 | 680                   | 835      | 240-2510-ND       | .58     | 4.83 | 20.83 | 37.49 | 28C0236-0BS-10   |
| 5    | 5.99            | 86.46 | 10.00 | 360                   | 460      | 240-2509-ND       | .51     | 4.19 | 18.08 | 32.54 | 28C0236-0DW-10   |

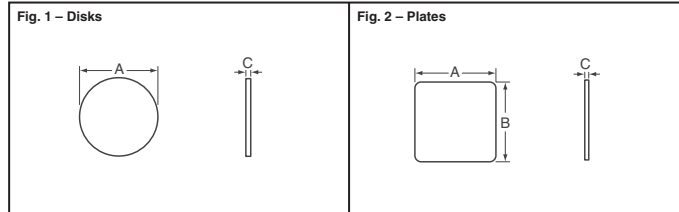
**Ferrite EMI Disks and Plates with Adhesive**



Steward's Ferrite Disks and Plates provide a simple, cost-effective solution for radiated and inductively coupled electromagnetic interference. After the PC board soldering process, a ferrite disk or plate can be installed directly on the source of EMI (such as active devices or unwanted antennas). Can also be utilized either as inductively-coupled components or EMI shields on PC board components and traces.

Inductive coupling occurs when the ferrite affects the conducted wave form leaving the active component. The rise time of the wave form is effectively slowed by the ferrite, and the overshoot and associated ringing are attenuated. EMI shielding occurs when the ferrite absorbs the radiated EMI emissions from active components, effectively protecting other boards or components in the vicinity from radiated contamination. Performance varies with each application.

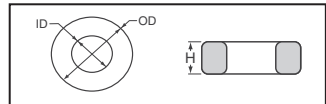
**Features:** • Parts have 3M VHB double-sided permanent adhesive • Can be used to locate unwanted EMI antennas • Flat Flex and Ribbon Cable Shields • Provides retrofit auxiliary EMI attenuation



§ 240-2247-ND Ferrite EMI Disk and Plate Kit (5 each of parts denoted) "Sample kit contains parts with temporary adhesives so they can be repositioned" ..... \$30.00 † For Higher EMI Frequencies

| Fig.          | Dimensions – mm |       |      | Digi-Key Part No. | Pricing |      |       | Steward Part No. |
|---------------|-----------------|-------|------|-------------------|---------|------|-------|------------------|
|               | A               | B     | C    |                   | 1       | 10   | 50    |                  |
| <b>Disks</b>  |                 |       |      |                   |         |      |       |                  |
| 1             | 20.00           | —     | 1.27 | 240-2248-ND§†     | .14     | 1.20 | 5.16  | HM0787-100       |
|               | 20.00           | —     | 1.91 | 240-2249-ND§†     | .17     | 1.42 | 6.11  | HM0787-200       |
|               | 35.56           | —     | 1.91 | 240-2250-ND§†     | .35     | 2.87 | 12.36 | HM1400-200       |
|               | 16.51           | —     | 1.27 | 240-2252-ND§      | .13     | 1.06 | 4.55  | MM0650-100       |
|               | 20.00           | —     | 1.91 | 240-2254-ND§      | .17     | 1.42 | 6.11  | MM0787-200       |
| <b>Plates</b> |                 |       |      |                   |         |      |       |                  |
| 2             | 26.42           | 26.42 | 1.27 | 240-2257-ND§†     | .21     | 1.74 | 7.49  | HP1040-100       |
|               | 26.42           | 26.42 | 1.91 | 240-2258-ND§†     | .27     | 2.23 | 9.61  | HP1040-200       |
|               | 8.00            | 8.00  | 2.00 | 240-2259-ND       | .11     | .89  | 3.85  | MP0315-200       |
|               | 26.42           | 8.89  | 1.27 | 240-2260-ND       | .13     | 1.08 | 4.65  | MP0350-000       |
|               | 11.00           | 11.00 | 2.00 | 240-2261-ND       | .12     | 1.02 | 4.38  | MP0433-000       |
|               | 13.00           | 13.00 | 2.00 | 240-2262-ND       | .14     | 1.13 | 4.86  | MP0512-200       |
|               | 15.00           | 15.00 | 2.00 | 240-2264-ND       | .15     | 1.26 | 5.41  | MP0591-200       |
|               | 19.30           | 19.30 | 1.27 | 240-2265-ND§      | .15     | 1.28 | 5.50  | MP0760-100       |
|               | 26.42           | 26.42 | 1.27 | 240-2266-ND§      | .21     | 1.74 | 7.49  | MP1040-100       |
|               | 26.42           | 26.42 | 1.91 | 240-2267-ND§      | .27     | 2.23 | 9.61  | MP1040-200       |
|               | 38.00           | 38.00 | 2.00 | 240-2268-ND       | .48     | 3.97 | 17.11 | MP1496-000       |

**Ferrite Toroid Cores for Transformers and Chokes**



**Features:** Steward 35 and 40 material ferrite toroids provide low losses and high performance in transformers at kHz to low MHz frequencies. They provide high impedance below 10MHz for suppression for undesired signals. The H coating is an epoxy with typical thickness of 0.003 inches. The Hipot rating is 1000 VAC minimum of coating. **Application:** • Switched mode power supplies • Current sensing transformers • DC to DC converters • Telecommunications transformers and chokes • Lighting Ballast • Ground Fault Interrupter Application • EMI filters

| Dimensions – Inches (mm) |              |              | Initial Permeability | AL @ 100kHz (nH per turn squared) | Digi-Key Part No. | Pricing |       |        | Steward Part No. |
|--------------------------|--------------|--------------|----------------------|-----------------------------------|-------------------|---------|-------|--------|------------------|
| OD                       | ID           | H            |                      |                                   |                   | 1       | 10    | 50     |                  |
| .230 (5.84)              | .120 (3.05)  | .060 (1.52)  | 5,000                | 991                               | 240-2584-ND       | .06     | .53   | 2.30   | 35T0231-00P      |
| .230 (5.84)              | .120 (3.05)  | .125 (3.18)  | 5,000                | 2,066                             | 240-2585-ND       | .09     | .78   | 3.38   | 35T0231-20P      |
| .230 (5.84)              | .120 (3.05)  | .100 (2.54)  | 5,000                | 1,652                             | 240-2586-ND       | .09     | .72   | 3.09   | 35T0231-30P      |
| .375 (9.53)              | .187 (4.75)  | .125 (3.18)  | 5,000                | 2,214                             | 240-2522-ND       | .18     | 1.51  | 6.52   | 35T0375-10H      |
| .500 (12.70)             | .281 (7.14)  | .250 (6.35)  | 5,000                | 3,659                             | 240-2524-ND       | .23     | 1.94  | 8.35   | 35T0501-10H      |
| 1.000 (25.40)            | .610 (15.50) | .394 (10.00) | 5,000                | 4,830                             | 240-2526-ND       | 1.19    | 9.86  | 42.49  | 35T1000-00H      |
| 1.417 (36.00)            | .906 (23.00) | .394 (10.00) | 5,000                | 4,543                             | 240-2528-ND       | 2.51    | 20.83 | 89.77  | 35T1417-00H      |
| .500 (12.70)             | .281 (7.14)  | .250 (6.35)  | 10,000               | 7,318                             | 240-2532-ND       | .27     | 2.20  | 9.50   | 40T0501-10H      |
| 1.000 (25.40)            | .610 (15.50) | .394 (10.00) | 10,000               | 9,660                             | 240-2534-ND       | 1.37    | 11.36 | 48.97  | 40T1000-00H      |
| 1.417 (36.00)            | .906 (23.00) | .591 (15.00) | 10,000               | 13,440                            | 240-2537-ND       | 3.46    | 28.71 | 123.75 | 40T1417-10H      |

**Digi-Reel®** Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

**More Product Available Online: [www.digikey.com](http://www.digikey.com)**

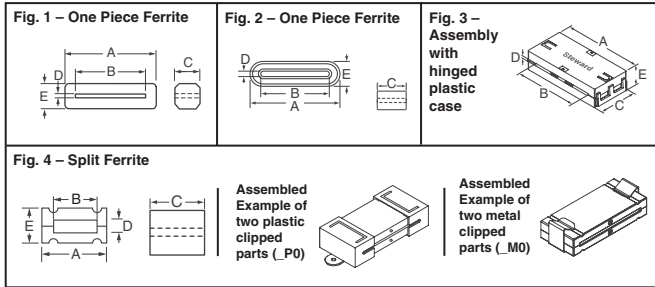
# Broad Band (30 MHz ~ 900 MHz Optimized) Ribbon and Flex Cable Ferrite Cores for EMI

**One Piece Ferrite EMI Cores for Flat Cables:** Cable must be inserted into the ferrite cores before cable ends are connected for figures 1 and 2. Parts made from high performance material.

**Split Ribbon Cable Core Assemblies with Hinged Plastic Cases:** Conveniently contain both ferrite core halves within the same fully assembled, hinged black plastic case. Order one part for each assembly

**Split Ribbon Cable Cores with Plastic End Clips:** Easy to use where assembled cable connectors prevent the use of one piece ferrite cores. White end clips provide secure closure of ferrite parts onto the flat cable. Tabs with screw holes for mounting the assembly included. Order two parts for each assembly.

**Split Ribbon Cable Cores with Metal Clips:** Split ferrite cores for flat ribbon cables clamp together with small metal clips that provide secure closure. Order two parts for each assembly.



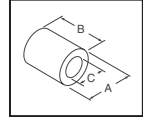
| Fig.                                                                                  | Dimensions - mm                                                              |       |       |       |       | Typical Impedance (Ω) |           | Digi-Key Part No. | Pricing     |      |       | Steward Part No. |        |             |             |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------|-------|-------|-------|-----------------------|-----------|-------------------|-------------|------|-------|------------------|--------|-------------|-------------|
|                                                                                       | A                                                                            | B     | C     | D     | E     | @ 100 MHz             | @ 300 MHz |                   | 1           | 2    | 10    |                  | 50     | 100         |             |
| <b>Rectangular Shaped One Piece Ferrite EMI Cores for Flat Cables</b>                 |                                                                              |       |       |       |       |                       |           |                   |             |      |       |                  |        |             |             |
| 1                                                                                     | 8.00                                                                         | 6.00  | 12.00 | 0.70  | 2.70  | 102                   | 250       | 240-2320-ND       | .12         | —    | 1.04  | 4.46             | 8.03   | 28R0315-200 |             |
|                                                                                       | 11.50                                                                        | 8.00  | 12.00 | 0.70  | 3.00  | 153                   | 335       | 240-2155-ND       | .14         | —    | 1.20  | 5.16             | 9.29   | 28R0453-200 |             |
|                                                                                       | 12.20                                                                        | 8.00  | 18.00 | 1.00  | 5.50  | 190                   | 320       | 240-2156-ND       | .25         | —    | 2.04  | 8.80             | 15.84  | 28R0480-000 |             |
|                                                                                       | 15.01                                                                        | 10.00 | 22.86 | 1.50  | 7.49  | 227                   | 370       | 240-2229-ND       | .41         | —    | 3.36  | 14.48            | 26.06  | 28R0592-010 |             |
|                                                                                       | 17.00                                                                        | 13.00 | 12.00 | 0.75  | 3.50  | 110                   | 270       | 240-2157-ND       | .18         | —    | 1.48  | 6.40             | 11.52  | 28R0669-000 |             |
|                                                                                       | 22.35                                                                        | 14.00 | 19.05 | 1.50  | 7.75  | 187                   | 356       | 240-2082-ND       | .51         | —    | 4.22  | 18.20            | 32.76  | 28R0880-200 |             |
|                                                                                       | 22.80                                                                        | 18.70 | 16.00 | 0.70  | 2.80  | 127                   | 280       | 240-2161-ND       | .21         | —    | 1.75  | 7.53             | 13.55  | 28R0898-000 |             |
|                                                                                       | 28.00                                                                        | 23.00 | 20.00 | 0.80  | 5.80  | 192                   | 380       | 240-2162-ND       | .50         | —    | 4.16  | 17.91            | 32.24  | 28R1102-100 |             |
|                                                                                       | 28.00                                                                        | 23.00 | 27.00 | 1.10  | 6.10  | 230                   | 480       | 240-2325-ND       | .65         | —    | 5.39  | 23.24            | 41.83  | 28R1103-000 |             |
|                                                                                       | 31.12                                                                        | 24.77 | 13.30 | 1.91  | 8.26  | 128                   | 300       | 240-2327-ND       | .49         | —    | 4.07  | 17.53            | 31.55  | 28R1227-100 |             |
|                                                                                       | 31.40                                                                        | 23.00 | 19.00 | 1.50  | 7.75  | 162                   | 370       | 240-2328-ND       | .66         | —    | 5.45  | 23.51            | 42.32  | 28R1236-000 |             |
|                                                                                       | 38.10                                                                        | 26.67 | 25.40 | 1.91  | 12.07 | 230                   | 520       | 240-2084-ND       | 1.58        | —    | 13.10 | 56.45            | 101.61 | 28R1517-000 |             |
|                                                                                       | 45.08                                                                        | 34.42 | 28.58 | 1.52  | 12.45 | 260                   | 530       | 240-2086-ND       | 2.17        | —    | 17.99 | 77.53            | 139.55 | 28R1775-000 |             |
|                                                                                       | 63.50                                                                        | 52.07 | 28.58 | 1.68  | 12.70 | 298                   | 588       | 240-2088-ND       | 3.03        | —    | 25.11 | 108.25           | 194.85 | 28R1779-000 |             |
|                                                                                       | 63.50                                                                        | 52.07 | 12.98 | 1.68  | 12.70 | 170                   | 375       | 240-2335-ND       | 1.42        | —    | 11.78 | 50.79            | 91.42  | 28R1779-100 |             |
|                                                                                       | 45.72                                                                        | 35.05 | 27.94 | 1.52  | 12.70 | 260                   | 555       | 240-2336-ND       | 2.20        | —    | 18.25 | 78.65            | 141.57 | 28R1800-010 |             |
|                                                                                       | 55.12                                                                        | 43.69 | 25.40 | 1.27  | 12.70 | 280                   | 550       | 240-2090-ND       | 2.42        | —    | 20.09 | 86.59            | 155.86 | 28R2170-000 |             |
|                                                                                       | 55.12                                                                        | 43.69 | 12.70 | 1.27  | 12.70 | 170                   | 370       | 240-2092-ND       | 1.25        | —    | 10.38 | 44.73            | 80.51  | 28R2170-100 |             |
|                                                                                       | 79.98                                                                        | 68.58 | 12.70 | 1.91  | 11.99 | 135                   | 318       | 240-2094-ND       | 1.59        | —    | 13.21 | 56.95            | 102.51 | 28R3149-000 |             |
|                                                                                       | <b>Oval Shaped One Piece Ferrite EMI Cores for Flat Cables</b>               |       |       |       |       |                       |           |                   |             |      |       |                  |        |             |             |
| 2                                                                                     | 15.50                                                                        | 13.50 | 10.00 | 1.40  | 3.40  | 80                    | 216       | 240-2322-ND       | .14         | —    | 1.17  | 5.03             | 9.05   | 28R0610-000 |             |
|                                                                                       | 19.20                                                                        | 15.00 | 10.00 | 1.15  | 5.35  | 107                   | 258       | 240-2323-ND       | .21         | —    | 1.73  | 7.48             | 13.46  | 28R0756-000 |             |
|                                                                                       | 19.20                                                                        | 15.00 | 16.00 | 1.15  | 5.35  | 140                   | 308       | 240-2159-ND       | .28         | —    | 2.30  | 9.93             | 17.87  | 28R0756-200 |             |
|                                                                                       | 25.00                                                                        | 18.00 | 24.00 | 0.90  | 7.70  | 220                   | 430       | 240-2160-ND       | .66         | —    | 5.46  | 23.54            | 42.37  | 28R0984-000 |             |
|                                                                                       | 25.00                                                                        | 18.00 | 16.00 | 0.90  | 7.70  | 170                   | 370       | 240-2324-ND       | .47         | —    | 3.90  | 16.83            | 30.29  | 28R0984-200 |             |
|                                                                                       | 28.58                                                                        | 23.50 | 31.00 | 1.70  | 7.70  | 220                   | 430       | 240-2230-ND       | .86         | —    | 7.13  | 30.73            | 55.31  | 28R1127-000 |             |
|                                                                                       | 28.58                                                                        | 23.50 | 17.00 | 1.70  | 7.70  | 150                   | 330       | 240-2231-ND       | .51         | —    | 4.26  | 18.36            | 33.05  | 28R1127-400 |             |
|                                                                                       | 28.58                                                                        | 23.50 | 9.70  | 1.70  | 7.70  | 110                   | 265       | 240-2326-ND       | .33         | —    | 2.70  | 11.64            | 20.95  | 28R1127-500 |             |
|                                                                                       | 37.00                                                                        | 27.00 | 18.25 | 1.50  | 8.00  | 168                   | 380       | 240-2163-ND       | .72         | —    | 6.00  | 25.85            | 46.53  | 28R1141-010 |             |
|                                                                                       | 32.00                                                                        | 25.10 | 35.00 | 0.90  | 7.75  | 350                   | 700       | 240-2330-ND       | 1.16        | —    | 9.61  | 41.44            | 74.59  | 28R1261-100 |             |
|                                                                                       | 32.00                                                                        | 25.10 | 9.70  | 0.90  | 7.75  | 135                   | 310       | 240-2331-ND       | .39         | —    | 3.21  | 13.85            | 24.93  | 28R1261-200 |             |
|                                                                                       | 34.00                                                                        | 28.00 | 25.00 | 1.00  | 7.00  | 220                   | 449       | 240-2332-ND       | .82         | —    | 6.81  | 29.36            | 52.85  | 28R1340-200 |             |
|                                                                                       | 36.83                                                                        | 29.58 | 10.00 | 0.75  | 7.75  | 130                   | 290       | 240-2164-ND       | .45         | —    | 3.71  | 16.01            | 28.82  | 28R1450-100 |             |
|                                                                                       | 37.01                                                                        | 33.00 | 13.46 | 0.51  | 4.50  | 140                   | 310       | 240-2333-ND       | .39         | —    | 3.19  | 13.75            | 24.75  | 28R1457-400 |             |
|                                                                                       | 42.00                                                                        | 37.50 | 5.00  | 0.70  | 5.00  | 84                    | 200       | 240-2334-ND       | .22         | —    | 1.81  | 7.79             | 14.02  | 28R1654-010 |             |
|                                                                                       | 49.61                                                                        | 44.00 | 12.00 | 1.45  | 7.62  | 127                   | 300       | 240-2165-ND       | .60         | —    | 5.01  | 21.59            | 38.86  | 28R1953-000 |             |
|                                                                                       | <b>Split Ribbon Cable Core Assemblies with Hinged Plastic Cases</b>          |       |       |       |       |                       |           |                   |             |      |       |                  |        |             |             |
|                                                                                       | 3                                                                            | 67.08 | 53.75 | 27.53 | 1.91  | 16.66                 | 236       | 480               | 240-2341-ND | 2.75 | —     | 22.79            | 98.25  | 176.85      | 28S2001-2A2 |
|                                                                                       | <b>Split Ribbon Cable Cores with Plastic End Clips*</b>                      |       |       |       |       |                       |           |                   |             |      |       |                  |        |             |             |
|                                                                                       | 4                                                                            | 63.50 | 52.07 | 28.58 | .84   | 6.35                  | 280       | 590               | 240-2097-ND | —    | 3.26  | 13.49            | 58.13  | 104.63      | 28S2001-0P0 |
| 76.20                                                                                 |                                                                              | 65.28 | 28.58 | .84   | 6.35  | 280                   | 600       | 240-2099-ND       | —           | 3.38 | 14.00 | 60.34            | 108.61 | 28S2011-0P0 |             |
| 45.09                                                                                 |                                                                              | 34.42 | 28.58 | .84   | 6.35  | 250                   | 550       | 240-2103-ND       | —           | 2.39 | 9.90  | 42.66            | 76.79  | 28S2022-0P0 |             |
| <b>Split Ribbon Cable Cores with Metal End Clips (1 Set = 2 Filters and 2 Clips)*</b> |                                                                              |       |       |       |       |                       |           |                   |             |      |       |                  |        |             |             |
| 4                                                                                     | 63.50                                                                        | 52.07 | 28.58 | .84   | 6.35  | 280                   | 590       | 240-2096-ND       | —           | 3.26 | 13.49 | 58.13            | 104.63 | 28S2001-0M0 |             |
|                                                                                       | 76.20                                                                        | 65.28 | 28.58 | .84   | 6.35  | 280                   | 600       | 240-2098-ND       | —           | 3.38 | 14.00 | 60.34            | 108.61 | 28S2011-0M0 |             |
|                                                                                       | 88.90                                                                        | 78.23 | 28.58 | .84   | 6.35  | 240                   | 630       | 240-2100-ND       | —           | 4.52 | 18.74 | 80.79            | 145.42 | 28S2012-0M0 |             |
|                                                                                       | 45.09                                                                        | 34.42 | 28.58 | .84   | 6.35  | 250                   | 550       | 240-2102-ND       | —           | 2.39 | 9.90  | 42.66            | 76.79  | 28S2022-0M0 |             |
|                                                                                       | 38.10                                                                        | 26.67 | 25.40 | .84   | 6.35  | 250                   | 520       | 240-2104-ND       | —           | 2.06 | 8.55  | 36.84            | 66.31  | 28S2023-0M0 |             |
| <b>Extra Accessories</b>                                                              |                                                                              |       |       |       |       |                       |           |                   |             |      |       |                  |        |             |             |
| —                                                                                     | Extra Plastic End Clip with Mounting Hole for a Split Ribbon Cable Core..... |       |       |       |       |                       |           | 240-2345-ND       | .13         | —    | 1.04  | 4.49             | 8.08   | ASSE001-2   |             |
| —                                                                                     | Extra Metal End Clip for Split Ribbon Cable Core.....                        |       |       |       |       |                       |           | 240-2346-ND       | .14         | —    | 1.17  | 5.06             | 9.11   | ASSE017-2   |             |

\* Note: Split ribbon cable cores require two ferrite pieces per one complete assembly (except split cores in fully assembled hinged plastic cases).

240-2507-ND Ferrite EMI Cores for Flat Ribbon and Flex Cables (3-11 each of 36 different sizes)..... \$60.00

**Low Frequency (300kHz ~ 30MHz)  
Cores for Round Cables**

Steward LFB ferrite material provides excellent impedance at lower frequencies. Optimum EMI attenuation is between 300kHz and 30MHz, however, with additional wire turns, much broader EMI frequencies can be effectively attenuated.



Additional wire turns will multiply impedance.

| Dimensions - mm |       |       | Net Impedance (Ω) |                 |                 |                 |                 |                 | Digi-Key Part No. | Pricing |       |        |        |        | Steward Part No. |
|-----------------|-------|-------|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|---------|-------|--------|--------|--------|------------------|
|                 |       |       | @ 1MHz (1 Turn)   | @ 1MHz (2 Turn) | @ 1MHz (5 Turn) | @ 5MHz (1 Turn) | @ 5MHz (2 Turn) | @ 5MHz (5 Turn) |                   | 1       | 10    | 50     | 100    | 500    |                  |
| 9.00            | 7.00  | 5.00  | 21                | 90              | 558             | 36              | 140             | 867             | 240-2135-ND       | .15     | 1.26  | 5.44   | 9.79   | 39.15  | LFB090050-000    |
| 9.50            | 19.05 | 5.10  | 63                | 240             | 1464            | 86              | 332             | 2514            | 240-2277-ND       | .45     | 3.71  | 15.99  | 28.78  | 115.11 | LFB095051-000    |
| 12.70           | 7.00  | 7.92  | 16                | 70              | 436             | 25              | 102             | 593             | 240-2278-ND       | .19     | 1.55  | 6.66   | 11.99  | 47.97  | LFB127079-000    |
| 14.27           | 28.58 | 6.35  | 122               | 490             | 2842            | 120             | 480             | 2646            | 240-2279-ND       | 1.71    | 14.14 | 60.94  | 109.69 | 438.75 | LFB143064-000    |
| 14.27           | 13.46 | 6.35  | 57                | 220             | 1169            | 53              | 215             | 1552            | 240-2136-ND       | .79     | 6.57  | 28.30  | 50.94  | 203.76 | LFB143064-100    |
| 15.88           | 28.58 | 7.87  | 105               | 410             | 2615            | 100             | 390             | 2305            | 240-2281-ND       | 1.09    | 9.05  | 39.00  | 70.20  | 280.80 | LFB159079-000    |
| 17.40           | 28.58 | 9.50  | 91                | 350             | 2184            | 85              | 340             | 2044            | 240-2282-ND       | 2.16    | 17.92 | 77.25  | 139.05 | 556.20 | LFB174095-000    |
| 18.10           | 10.00 | 10.00 | 31                | 138             | 809             | 29              | 115             | 722             | 240-2283-ND       | .51     | 4.23  | 18.25  | 32.85  | 131.40 | LFB180100-000    |
| 18.70           | 28.58 | 10.16 | 91                | 350             | 1969            | 84              | 330             | 1863            | 240-2284-ND       | 2.34    | 19.36 | 83.44  | 150.19 | 600.75 | LFB187102-000    |
| 22.10           | 12.70 | 14.00 | 30                | 30              | 818             | 28              | 110             | 699             | 240-2137-ND       | .65     | 5.41  | 23.30  | 41.94  | 167.76 | LFB220140-000    |
| 25.00           | 13.00 | 15.00 | 34                | 136             | 850             | 26              | 80              | 624             | 240-2285-ND       | .92     | 7.66  | 33.00  | 59.40  | 237.60 | LFB250150-000    |
| 25.91           | 28.58 | 12.83 | 106               | 420             | 2647            | 62              | 240             | 1487            | 240-2138-ND       | 3.30    | 27.37 | 117.96 | 212.33 | 849.33 | LFB259128-000    |
| 28.98           | 15.21 | 19.05 | 34                | 155             | 963             | 22              | 70              | 573             | 240-2286-ND       | 1.47    | 12.16 | 52.41  | 94.34  | 377.37 | LFB290190-000    |
| 31.00           | 13.00 | 19.00 | 33                | 143             | 845             | 22              | 88              | 554             | 240-2139-ND       | 1.45    | 11.98 | 51.63  | 92.93  | 371.70 | LFB310190-000    |
| 36.00           | 15.00 | 23.00 | 27                | 110             | 653             | 19              | 75              | 438             | 240-2287-ND       | 2.80    | 23.18 | 99.90  | 179.82 | 719.28 | LFB360230-300    |

§ 240-2508-ND Ferrite Low Frequency EMI Cores for Round Cables and Wire Bundles Sample Kit (4-16 each of parts denoted) ..... \$60.00

**E**

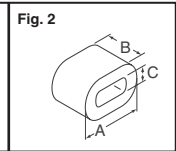
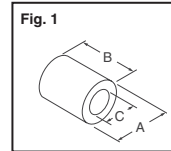
**Ferrite Cylinders and Toroids for Electromagnetic Interference (EMI)**



**Broad Band (optimized 30MHz ~ 800MHz +)  
Bead Cores for Round Cables and Wire Bundles**

One-piece ferrite tubular bead cores for effectively attenuating a broad range of conducted and radiated electromagnetic interference (EMI). Install over round cables or wire bundles. Ferrite beads can be over molded or covered with heat shrink coating if desired. Additional wire turns will multiply impedance. Steward's cylindrical beads for round cables in Broad Band 28 material provide

the smallest and most cost effective EMI solution when filtering both common mode and differential mode EMI on internal and external cable assemblies. By using Steward's high performance material, one is able to use the smallest and lowest weight core size possible with the highest EMI attenuation performance available.

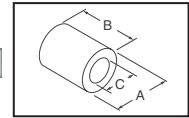


| Fig.  | Dimensions - mm |       |       | Typical Impedance Ω |          |             | Digi-Key Part No. | Pricing |        |        |         |             | Steward Part No. |
|-------|-----------------|-------|-------|---------------------|----------|-------------|-------------------|---------|--------|--------|---------|-------------|------------------|
|       | A               | B     | C     | @ 50MHz             | @ 100MHz | @ 300MHz    |                   | 1       | 10     | 50     | 100     | 500         |                  |
| 1     | 6.35            | 15.88 | 3.18  | 131                 | 182      | 300         | 240-2289-ND       | .14     | 1.17   | 5.04   | 9.07    | 36.27       | 28B0250-100      |
|       | 6.78            | 14.22 | 3.99  | 100                 | 138      | 260         | 240-2112-ND       | .14     | 1.12   | 4.83   | 8.69    | 34.74       | 28B0268-000      |
|       | 7.00            | 13.50 | 3.80  | 84                  | 146      | 268         | 240-2290-ND       | .14     | 1.16   | 4.99   | 8.98    | 35.91       | 28B0275-000      |
|       | 8.00            | 4.78  | 3.17  | 69                  | 100      | 220         | 240-2291-ND       | .12     | .97    | 4.19   | 7.54    | 30.15       | 28B0315-000      |
|       | 8.00            | 10.06 | 3.17  | 112                 | 158      | 281         | 240-2292-ND       | .15     | 1.22   | 5.26   | 9.47    | 37.89       | 28B0315-100      |
|       | 8.60            | 10.00 | 3.80  | 85                  | 143      | 264         | 240-2293-ND       | .15     | 1.27   | 5.46   | 9.83    | 39.33       | 28B0339-000      |
|       | 9.00            | 20.00 | 4.75  | 148                 | 205      | 360         | 240-2295-ND       | .21     | 1.76   | 7.58   | 13.64   | 54.54       | 28B0355-000      |
|       | 9.53            | 14.48 | 5.08  | 114                 | 154      | 282         | 240-2067-ND       | .19     | 1.55   | 6.69   | 12.04   | 48.15       | 28B0375-100      |
|       | 9.53            | 19.05 | 5.08  | 146                 | 194      | 310         | 240-2113-ND       | .22     | 1.82   | 7.86   | 14.15   | 56.61       | 28B0375-300      |
|       | 9.53            | 4.83  | 5.08  | 52                  | 81       | 200         | 240-2296-ND       | .12     | 1.02   | 4.39   | 7.90    | 31.59       | 28B0375-400      |
|       | 9.75            | 10.00 | 3.80  | 125                 | 159      | 286         | 240-2297-ND       | .18     | 1.45   | 6.26   | 11.27   | 45.09       | 28B0384-000      |
|       | 9.75            | 25.00 | 3.80  | 254                 | 322      | 473         | 240-2298-ND       | .30     | 2.51   | 10.84  | 19.51   | 78.03       | 28B0384-200      |
| 9.91  | 15.00           | 6.35  | 88    | 128                 | 248      | 240-2299-ND | .18               | 1.50    | 6.46   | 11.63  | 46.53   | 28B0390-200 |                  |
| 12.00 | 10.00           | 3.55  | 152   | 195                 | 320      | 240-2240-ND | .23               | 1.87    | 8.08   | 14.54  | 58.14   | 28B0473-000 |                  |
| 12.00 | 25.00           | 3.55  | 318   | 424                 | 558      | 240-2241-ND | .43               | 3.60    | 15.51  | 27.92  | 111.69  | 28B0473-200 |                  |
| 12.32 | 25.40           | 4.88  | 253   | 320                 | 450      | 240-2114-ND | .43               | 3.60    | 15.50  | 27.90  | 111.60  | 28B0485-000 |                  |
| 12.70 | 6.35            | 7.92  | 52    | 83                  | 200      | 240-2301-ND | .16               | 1.29    | 5.58   | 10.04  | 40.14   | 28B0500-100 |                  |
| 14.27 | 10.16           | 6.35  | 101   | 145                 | 270      | 240-2302-ND | .26               | 2.18    | 9.38   | 16.88  | 67.50   | 28B0562-000 |                  |
| 14.27 | 28.58           | 6.35  | 262   | 317                 | 470      | 240-2078-ND | .58               | 4.81    | 20.74  | 37.33  | 149.31  | 28B0562-200 |                  |
| 14.27 | 15.24           | 7.26  | 121   | 173                 | 295      | 240-2303-ND | .33               | 2.76    | 11.91  | 21.44  | 85.77   | 28B0563-000 |                  |
| 14.27 | 28.57           | 7.26  | 197   | 287                 | 406      | 240-2304-ND | .55               | 4.53    | 19.54  | 35.17  | 140.67  | 28B0563-200 |                  |
| 14.48 | 5.51            | 8.51  | 51    | 82                  | 200      | 240-2305-ND | .17               | 1.41    | 6.06   | 10.91  | 43.65   | 28B0570-000 |                  |
| 15.00 | 35.00           | 5.90  | 348   | 450                 | 580      | 240-2242-ND | .79               | 6.57    | 28.31  | 50.96  | 203.85  | 28B0591-200 |                  |
| 15.65 | 28.58           | 7.00  | 232   | 310                 | 450      | 240-2306-ND | .68               | 5.64    | 24.30  | 43.74  | 174.96  | 28B0616-000 |                  |
| 15.88 | 14.27           | 7.87  | 87    | 163                 | 273      | 240-2307-ND | .38               | 3.11    | 13.43  | 24.17  | 96.66   | 28B0625-000 |                  |
| 15.88 | 28.58           | 7.87  | 209   | 280                 | 400      | 240-2115-ND | .66               | 5.49    | 23.65  | 42.57  | 170.28  | 28B0625-100 |                  |
| 16.00 | 28.00           | 9.25  | 171   | 243                 | 370      | 240-2308-ND | .60               | 4.94    | 21.29  | 38.32  | 153.27  | 28B0631-100 |                  |
| 17.42 | 6.35            | 9.52  | 61    | 91                  | 214      | 240-2310-ND | .23               | 1.93    | 8.30   | 14.94  | 59.76   | 28B0686-000 |                  |
| 17.42 | 28.57           | 9.52  | 191   | 242                 | 390      | 240-2079-ND | .73               | 6.06    | 26.11  | 47.00  | 188.01  | 28B0686-200 |                  |
| 18.67 | 28.58           | 10.16 | 197   | 250                 | 400      | 240-2080-ND | .83               | 6.88    | 29.66  | 53.39  | 213.57  | 28B0735-000 |                  |
| 18.67 | 14.27           | 10.16 | 108   | 150                 | 270      | 240-2311-ND | .46               | 3.79    | 16.35  | 29.43  | 117.72  | 28B0735-300 |                  |
| 22.10 | 6.35            | 13.72 | 53    | 85                  | 205      | 240-2312-ND | .29               | 2.41    | 10.39  | 18.70  | 74.79   | 28B0870-000 |                  |
| 22.10 | 12.70           | 13.72 | 80    | 122                 | 236      | 240-2116-ND | .49               | 4.05    | 17.46  | 31.43  | 125.73  | 28B0870-100 |                  |
| 25.40 | 12.70           | 15.49 | 83    | 122                 | 247      | 240-2313-ND | .63               | 5.21    | 22.45  | 40.41  | 161.64  | 28B0999-000 |                  |
| 25.40 | 12.70           | 12.70 | 106   | 151                 | 278      | 240-2117-ND | .74               | 6.10    | 26.29  | 47.32  | 189.27  | 28B1000-000 |                  |
| 25.91 | 28.58           | 12.83 | 104   | 276                 | 412      | 240-2081-ND | 1.62              | 13.40   | 57.78  | 104.00 | 415.98  | 28B1020-100 |                  |
| 28.50 | 28.58           | 13.77 | 218   | 307                 | 440      | 240-2243-ND | 1.96              | 16.21   | 69.89  | 125.80 | 503.19  | 28B1122-100 |                  |
| 29.01 | 7.49            | 19.00 | 53    | 85                  | 200      | 240-2118-ND | .47               | 3.87    | 16.68  | 30.02  | 120.06  | 28B1142-000 |                  |
| 29.01 | 13.84           | 19.00 | 77    | 114                 | 235      | 240-2314-ND | .79               | 6.55    | 28.23  | 50.81  | 203.22  | 28B1142-100 |                  |
| 31.12 | 15.93           | 19.05 | 100   | 140                 | 270      | 240-2315-ND | 1.10              | 9.15    | 39.43  | 70.97  | 283.86  | 28B1225-000 |                  |
| 31.75 | 22.22           | 19.05 | 134   | 186                 | 292      | 240-2119-ND | 1.60              | 13.28   | 57.24  | 103.03 | 412.11  | 28B1250-000 |                  |
| 36.00 | 12.70           | 23.00 | 78    | 115                 | 230      | 240-2317-ND | 1.11              | 9.22    | 39.76  | 71.57  | 286.29  | 28B1417-200 |                  |
| 39.12 | 22.22           | 16.76 | 204   | 254                 | 405      | 240-2319-ND | 3.03              | 25.07   | 108.05 | 194.49 | 777.96  | 28B1540-000 |                  |
| 50.80 | 28.70           | 25.40 | 218   | 305                 | 442      | 240-2244-ND | 5.97              | 49.46   | 213.20 | 383.76 | 1535.04 | 28B2000-100 |                  |
| 60.96 | 12.70           | 35.56 | 90    | 135                 | 285      | 240-2120-ND | 3.07              | 25.46   | 109.75 | 197.55 | 790.20  | 28B2400-000 |                  |
| 2     | 38.86           | 28.58 | 12.95 | 161                 | 210      | 347         | 240-2318-ND       | 2.25    | 18.66  | 80.43  | 144.77  | 579.06      | 28B1531-000      |
|       | 19.64           | 12.70 | 5.10  | 100                 | 141      | 273         | 240-2497-ND       | .67     | 5.54   | 23.90  | 43.02   | 172.08      | 28B0773-050      |

240-2505-ND Ferrite Broad Band EMI Cores for Round Cables and Wire Bundles Sample Kit (1-12 each of 36 part sizes) ..... \$60.00

(Continued)

**More Product Available Online: [www.digikey.com](http://www.digikey.com)**



**High Frequency (300MHz ~ 2GHz) Cylindrical Cores for Round Cables**

Made from special high frequency material, these ferrite cylinders and toroids have EMI attenuation (impedance) that peaks above 1GHz for most part sizes. Also available in split clamp-on shapes (in plastic cases) listed at the bottom of this page. Size and shape of the part can affect performance and frequency response.

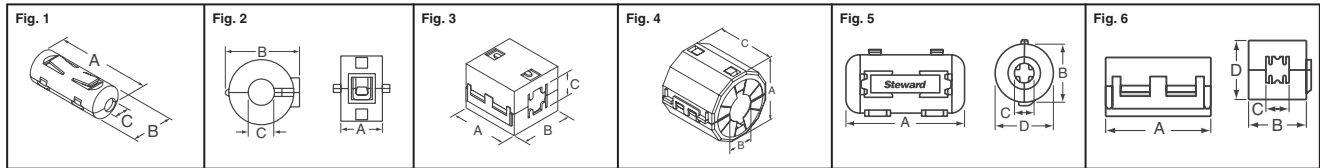
| Dimensions - mm |       |       | Net Impedance (Ω) |          | Digi-Key Part No. | 1    | 10    | Pricing |        |         | Steward Part No. |
|-----------------|-------|-------|-------------------|----------|-------------------|------|-------|---------|--------|---------|------------------|
| A               | B     | C     | @ 500MHz          | @ 800MHz |                   |      |       | 50      | 100    | 500     |                  |
| 7.52            | 10.00 | 2.39  | 136               | 138      | 240-2146-ND       | .25  | 2.04  | 8.80    | 15.84  | 63.36   | HFB075024-000    |
| 9.52            | 10.00 | 5.08  | 74                | 85       | 240-2145-ND       | .29  | 2.41  | 10.40   | 18.72  | 74.88   | HFB095051-100    |
| 9.52            | 19.00 | 5.08  | 135               | 183      | 240-2140-ND       | .48  | 3.95  | 17.03   | 30.65  | 122.58  | HFB095051-200    |
| 12.32           | 5.00  | 4.88  | 56                | 62       | 240-2269-ND       | .29  | 2.39  | 10.29   | 18.52  | 74.07   | HFB123049-000    |
| 12.32           | 10.00 | 4.88  | 110               | 127      | 240-2149-ND       | .49  | 4.10  | 17.66   | 31.79  | 127.17  | HFB123049-100    |
| 12.32           | 25.40 | 4.88  | 287               | 305      | 240-2270-ND       | 1.13 | 9.39  | 40.46   | 72.83  | 291.33  | HFB123049-300    |
| 14.27           | 10.00 | 6.35  | 100               | 113      | 240-2147-ND       | .60  | 4.93  | 21.25   | 38.25  | 153.00  | HFB143064-100    |
| 14.27           | 28.58 | 6.35  | 315               | 306      | 240-2148-ND       | 1.56 | 12.94 | 55.76   | 100.37 | 401.49  | HFB143064-300    |
| 15.24           | 10.00 | 3.38  | 190               | 189      | 240-2151-ND       | .78  | 6.48  | 27.91   | 50.24  | 200.97  | HFB152034-000    |
| 15.65           | 20.00 | 6.99  | 200               | 216      | 240-2273-ND       | 1.32 | 10.94 | 47.16   | 84.89  | 339.57  | HFB157070-000    |
| 15.88           | 28.58 | 7.87  | 290               | 302      | 240-2142-ND       | 1.83 | 15.13 | 65.23   | 117.41 | 469.62  | HFB159079-100    |
| 16.00           | 19.00 | 9.25  | 145               | 155      | 240-2274-ND       | 1.11 | 9.23  | 39.79   | 71.62  | 286.47  | HFB160093-200    |
| 16.00           | 27.99 | 9.25  | 198               | 261      | 240-2152-ND       | 1.60 | 13.28 | 57.25   | 103.05 | 412.20  | HFB160093-300    |
| 16.99           | 10.00 | 7.01  | 115               | 127      | 240-2153-ND       | .84  | 6.96  | 30.00   | 54.00  | 216.00  | HFB170070-000    |
| 16.99           | 20.00 | 7.01  | 215               | 234      | 240-2275-ND       | 1.59 | 13.21 | 56.93   | 102.47 | 409.86  | HFB170070-100    |
| 18.67           | 30.00 | 10.16 | 250               | 276      | 240-2143-ND       | 2.40 | 19.91 | 85.81   | 154.46 | 617.85  | HFB187102-100    |
| 25.91           | 28.58 | 12.83 | 246               | 268      | 240-2154-ND       | 4.67 | 38.67 | 166.66  | 299.99 | 1199.97 | HFB259128-100    |

240-2225-ND High Frequency Ferrite Clamp-On and Solid Cylinder Core Sample Kit for Round Cables (one each of 18 different sizes) ..... \$30.00

**Clamp-On, Split Ferrite Cores in Plastic Cases for Round Cables and Wire Bundles**



Split ferrite bead cores in clamp-on (or snap-on) plastic cases can be easily used for EMI attenuation where one-piece cores cannot be installed. Clamp-on cores are also convenient for use during EMI testing. Cylinder, round and box shaped plastic cased part shapes available. Additional wire turns will multiply impedance. High performance material.



**Broad Band Plastic Clamp-On Cores Optimized for 30MHz ~ 800MHz +**

| Fig.                             | Case Color | Plastic Case Dimensions - mm |       |       | Max. Cable Diameter mm | Typical Impedance (Ω) |                | Digi-Key Part No. | Price Each |      |      |             | Steward Part No. |
|----------------------------------|------------|------------------------------|-------|-------|------------------------|-----------------------|----------------|-------------------|------------|------|------|-------------|------------------|
|                                  |            | A                            | B     | C     |                        | 100MHz                | 300MHz         |                   | 1          | 10   | 50   | 100         |                  |
| <b>Cylinder Clamp-On Ferrite</b> |            |                              |       |       |                        |                       |                |                   |            |      |      |             |                  |
| 1                                | Black      | 25.20                        | 13.00 | 3.50  | 3.50                   | 240                   | 400            | 240-2233-ND\$‡    | 1.37       | 1.14 | .98  | .89         | 28A0350-0B2      |
|                                  | White      | 29.08                        | 12.80 | 5.44  | 4.65                   | 170                   | 320            | 240-2068-ND       | .94        | .79  | .68  | .61         | 28A0392-0A0      |
|                                  | Black      | 29.08                        | 12.80 | 5.44  | 4.65                   | 170                   | 320            | 240-2070-ND\$‡    | .94        | .79  | .68  | .61         | 28A0392-0A2      |
|                                  | Black      | 42.55                        | 14.30 | 5.35  | 5.10                   | 277                   | 449            | 240-2344-ND\$‡    | 1.17       | .97  | .84  | .76         | 28A0434-0A2      |
|                                  | Black      | 53.39                        | 18.75 | 4.80  | 4.50                   | 572                   | 688            | 240-2245-ND\$‡    | 1.76       | 1.46 | 1.26 | 1.13        | 28A0592-0A2      |
|                                  | Black      | 53.39                        | 18.75 | 6.60  | 6.55                   | 471                   | 575            | 240-2246-ND\$‡    | 1.80       | 1.49 | 1.29 | 1.16        | 28A0593-0A2      |
|                                  | White      | 40.36                        | 19.10 | 9.09  | 8.95                   | 240                   | 390            | 240-2065-ND       | 1.30       | 1.08 | .94  | .84         | 28A0640-0A0      |
|                                  | Black      | 40.36                        | 19.10 | 9.09  | 8.95                   | 240                   | 390            | 240-2066-ND\$‡    | 1.30       | 1.08 | .94  | .84         | 28A0640-0A2      |
|                                  | Black      | 55.91                        | 24.82 | 10.00 | 10.00                  | 348                   | 514            | 240-2580-ND       | 3.68       | 3.05 | 2.63 | 2.37        | 28A0807-0A2      |
|                                  | Black      | 41.68                        | 21.03 | 7.00  | 6.35                   | 270                   | 460            | 240-2122-ND\$‡    | 1.36       | 1.13 | .98  | .88         | 28A2026-0A2      |
| Black                            | 35.10      | 18.00                        | 9.00  | 9.00  | 220                    | 360                   | 240-2124-ND\$‡ | 1.16              | .96        | .83  | .75  | 28A2736-0A2 |                  |
| Black                            | 33.70      | 30.00                        | 13.00 | 12.85 | 260                    | 410                   | 240-2127-ND\$‡ | 6.08              | 5.04       | 4.34 | 3.91 | 28A3851-0A2 |                  |
| <b>Round Clamp-On Ferrite</b>    |            |                              |       |       |                        |                       |                |                   |            |      |      |             |                  |
| 2                                | Black      | 19.90                        | 19.20 | 8.20  | 8.13                   | 160                   | 300            | 240-2123-ND\$‡    | 1.86       | 1.55 | 1.33 | 1.20        | 28A2432-0A2      |
|                                  | Black      | 13.60                        | 24.55 | 10.20 | 10.19                  | 130                   | 250            | 240-2125-ND‡      | 1.96       | 1.63 | 1.40 | 1.26        | 28A3039-0A2      |
|                                  | Black      | 15.40                        | 28.80 | 13.60 | 13.55                  | 120                   | 230            | 240-2128-ND‡      | 2.25       | 1.87 | 1.61 | 1.45        | 28A4155-0A2      |
| <b>Box Clamp-On Ferrite</b>      |            |                              |       |       |                        |                       |                |                   |            |      |      |             |                  |
| 3                                | White      | 32.50                        | 29.00 | 13.00 | 12.70                  | 280                   | 440            | 240-2072-ND       | 2.92       | 2.43 | 2.09 | 1.88        | 28A2024-0A0      |
|                                  | Black      | 32.50                        | 29.00 | 13.00 | 12.70                  | 280                   | 440            | 240-2073-ND\$‡    | 2.92       | 2.43 | 2.09 | 1.88        | 28A2024-0A2      |
|                                  | White      | 32.03                        | 17.58 | 7.26  | 6.35                   | 320                   | 510            | 240-2074-ND       | 1.28       | 1.06 | .92  | .83         | 28A2025-0A0      |
|                                  | Black      | 32.03                        | 17.58 | 7.26  | 6.35                   | 320                   | 510            | 240-2075-ND\$‡    | 1.28       | 1.06 | .92  | .83         | 28A2025-0A2      |
|                                  | White      | 32.84                        | 21.77 | 10.00 | 9.91                   | 250                   | 420            | 240-2076-ND       | 1.67       | 1.39 | 1.20 | 1.08        | 28A2029-0A0      |
|                                  | Black      | 32.84                        | 21.77 | 10.00 | 9.91                   | 250                   | 420            | 240-2077-ND\$‡    | 1.67       | 1.39 | 1.20 | 1.08        | 28A2029-0A2      |
| Black                            | 42.00      | 29.20                        | 19.30 | 18.80 | 210                    | 360                   | 240-2121-ND\$‡ | 7.15              | 5.93       | 5.11 | 4.60 | 28A5776-0A2 |                  |
| <b>Large Round Clamp-On</b>      |            |                              |       |       |                        |                       |                |                   |            |      |      |             |                  |
| 4                                | Black      | 56.64                        | 19.50 | 45.00 | 25.40                  | 425                   | 533            | 240-2199-ND       | 9.87       | 8.18 | 7.05 | 6.35        | 28A5131-0A2      |

§ 240-2224-ND Split Clamp-On Broad Band EMI Ferrite Cores Small Sample Kit for Round Cables (one each of parts denoted) ..... \$30.00  
 ‡ 240-2506-ND Split Clamp-On Broad Band EMI Ferrite Cores Large Sample Kit for Round Cables (1-12 each of parts denoted) ..... \$60.00

**High Frequency (300MHz ~ 2GHz) Clamp-On Ferrite Cores**

| Fig.                             | Case Color | Plastic Case Dimensions - mm |       |       |       | Max. Cable Diameter mm | Net Impedance (Ω) |        | Digi-Key Part No. | 1    | Price Each |      |      | Steward Part No. |
|----------------------------------|------------|------------------------------|-------|-------|-------|------------------------|-------------------|--------|-------------------|------|------------|------|------|------------------|
|                                  |            | A                            | B     | C     | D     |                        | 500MHz            | 800MHz |                   |      | 10         | 50   | 100  |                  |
| <b>Cylinder Clamp-On Ferrite</b> |            |                              |       |       |       |                        |                   |        |                   |      |            |      |      |                  |
| 5                                | Black      | 29.30                        | 12.80 | 5.30  | 12.40 | 4.65                   | 152               | 168    | 240-2129-ND       | 1.11 | .92        | .80  | .72  | HFA100049-0A2    |
|                                  |            | 41.68                        | 21.03 | 8.13  | 21.03 | 6.35                   | 340               | 281    | 240-2132-ND       | 2.63 | 2.19       | 1.89 | 1.70 | HFA150068-0A2    |
|                                  |            | 40.36                        | 19.10 | 9.09  | 20.80 | 8.95                   | 260               | 262    | 240-2130-ND       | 2.42 | 2.01       | 1.73 | 1.56 | HFA163090-0A2    |
| <b>Box Clamp-On Ferrite</b>      |            |                              |       |       |       |                        |                   |        |                   |      |            |      |      |                  |
| 6                                | Black      | 32.50                        | 17.88 | 7.00  | 18.39 | 6.35                   | 350               | 339    | 240-2131-ND       | 2.66 | 2.21       | 1.90 | 1.71 | HFA150066-0A2    |
|                                  |            | 32.64                        | 21.77 | 10.00 | 21.84 | 9.91                   | 290               | 280    | 240-2133-ND       | 3.60 | 2.99       | 2.58 | 2.32 | HFA187102-0A2    |
|                                  |            | 32.51                        | 29.01 | 13.00 | 29.60 | 12.70                  | 315               | 275    | 240-2134-ND       | 6.64 | 5.51       | 4.75 | 4.28 | HFA259131-0A2    |

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