

# Split Round Cable EMI Suppression Cores

Suppression cores for round cables are available for a range of cable diameters. Installed around a cable, these 43 and 44 material cores, provide common-mode filtering for multi-strand cables and differential mode filtering for single conductors.

Polypropylene cases make the assembly of the core halves a snap. Cores are easily installed in equipment where a retrofit proves necessary. See page 101 for available cases.

- Cores are controlled for impedance limits only. Two cores making a set are tested for impedance with a single turn, using a Hewlett Packard HP 4193A Vector Impedance Meter.
- Cores are sold as pieces.
- For one piece round cable EMI suppression cores, see page 94.
- For split round cable EMI suppression cores assembled into cases, see page 101.
- For impedance vs. frequency curves, see Figures 3-12.
- For any split round cable EMI suppression core requirement not listed in the catalog, please contact our customer service group for availability and pricing.
- The Expanded Cable and Connector EMI Suppressor Kit (part number 0199000005) contains a selection of these suppression cores. See page 92.

**Dimensions** (Bold numbers are in millimeters, light numbers are nominal in inches.)

Typical Impedance( $\Omega$ )<sup>1</sup>

Part Number*	Fig.	Max. Cable Diameter	A	B	C	D	Wt (g)	25 MHz	100 MHz	Case P/N**	Case Fig.**	Z, R <sub>s</sub> , X <sub>L</sub> vs. Frequency Curve
<b>2643166751</b>	1	<b>2.5</b> .100	<b>7.65 - 0.25</b> .296	<b>2.3+0.25</b> .095	<b>7.8 - 0.5</b> .297	<b>3.9 - 0.25</b> .148	1.1	60	93	—	—	Figure 3
<b>2643165451</b>	1	<b>6.4</b> .250	<b>15.0±0.25</b> .590	<b>6.6±0.3</b> .260	<b>15.25±0.6</b> .600	<b>7.5±0.15</b> .295	7.3	94	155	—	—	Figure 4
<b>2643164251</b>	1	<b>6.4</b> .250	<b>15.0±0.25</b> .590	<b>6.6±0.3</b> .260	<b>28.6±0.8</b> 1.125	<b>7.5±0.15</b> .295	14	163	275	0199164251	1	Figure 5
<b>2643625006</b>	2	<b>7.6</b> .300	<b>15.9±0.4</b> .626	<b>7.9±0.3</b> .311	<b>14.3±0.4</b> .563	<b>7.95±0.2</b> .313	5.0	50	113	0199625006	2	Figure 6
<b>2643665806</b>	2	<b>9.3</b> .365	<b>17.5±0.5</b> .689	<b>9.5±0.3</b> .374	<b>12.7±0.4</b> .500	<b>8.75±0.25</b> .344	5.2	41	88	0199665806	2	Figure 7
<b>2643167251</b>	1	<b>10.0</b> .394	<b>18.65±0.4</b> .735	<b>10.15±0.3</b> .400	<b>28.6±0.8</b> 1.125	<b>9.4±0.15</b> .370	18	130	225	0199167251	1	Figure 8
<b>2643800506</b>	2	<b>12.7</b> .500	<b>21.0±0.5</b> .827	<b>13.2±0.4</b> .520	<b>11.9±0.4</b> .469	<b>10.5±0.25</b> .413	6.0	35	75	0199800506	2	Figure 9
<b>2643164151</b>	1	<b>12.7</b> .500	<b>25.9±0.5</b> 1.020	<b>13.05±0.3</b> .514	<b>28.6±0.8</b> 1.125	<b>12.95±0.25</b> .510	38	156	250	0199164151	1	Figure 10
<b>2643806406</b>	2	<b>15.0</b> .591	<b>25.4±0.6</b> 1.000	<b>15.5±0.5</b> .610	<b>12.7±0.4</b> .500	<b>12.7±0.3</b> .500	9.7	43	90	0199806406	2	Figure 11
<b>2644173551</b>	1	<b>19.0</b> .750	<b>25.9±0.5</b> 1.020	<b>18.8±0.3</b> .740	<b>38.9±0.4</b> 1.532	<b>13.0±0.25</b> .512	39	94	195	0199173551	1	Figure 12

\*Bold part numbers designate preferred parts.

<sup>1</sup> Guaranteed Z Min is Z Typ -20%

\*\*Refer to page 101 for dimensions and figures for split round cable EMI suppression core cases.

**Fair-Rite Products Corp.** P.O. Box J, One Commercial Row, Wallkill, NY 12589-0288

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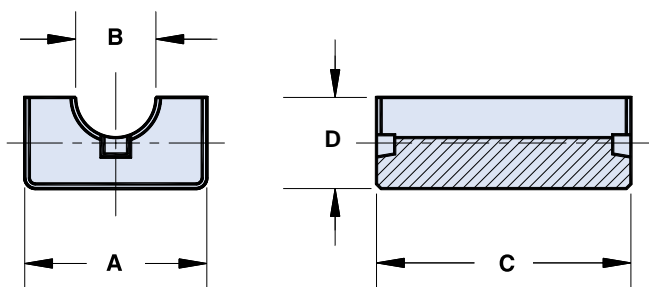


Figure 1

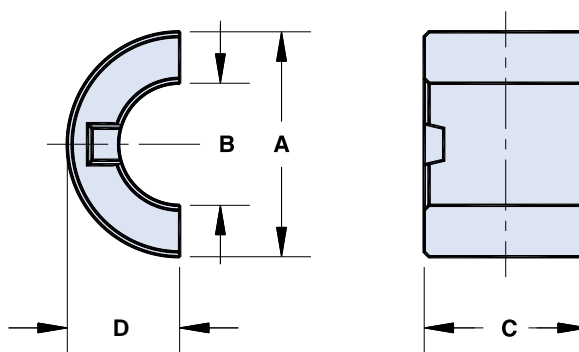


Figure 2

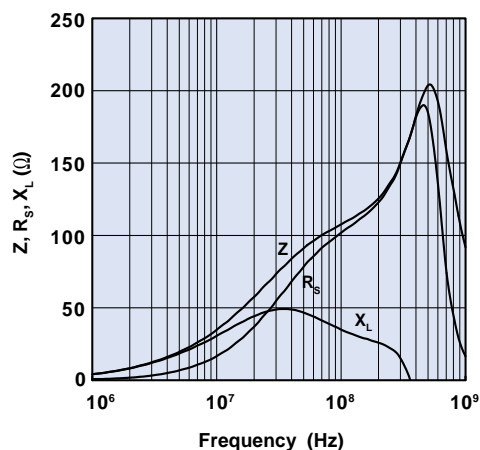


Figure 3 Impedance, Reactance, and Resistance vs. Frequency for 43 material split round cable EMI suppression core 2643166751.

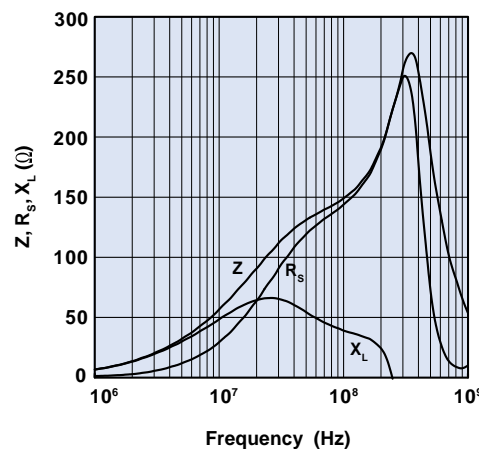


Figure 4 Impedance, Reactance, and Resistance vs. Frequency for 43 material split round cable EMI suppression core 2643165451.

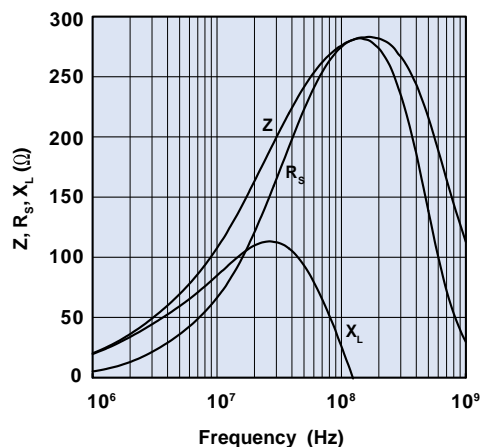


Figure 5 Impedance, Reactance, and Resistance vs. Frequency for 43 material split round cable EMI suppression core 2643164251.

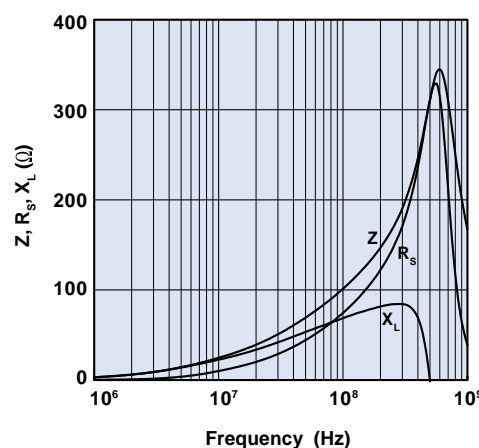
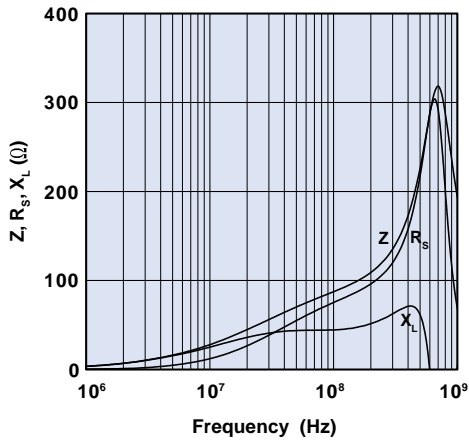
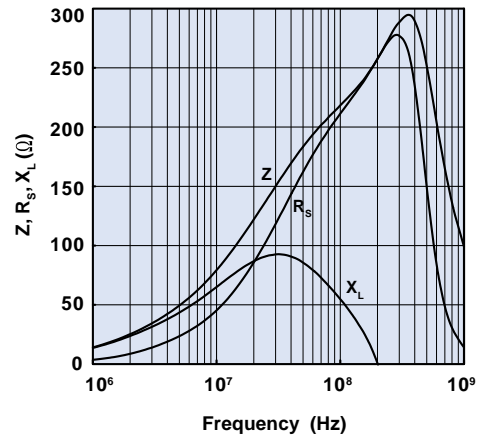


Figure 6 Impedance, Reactance, and Resistance vs. Frequency for 43 material split round cable EMI suppression core 2643625006.

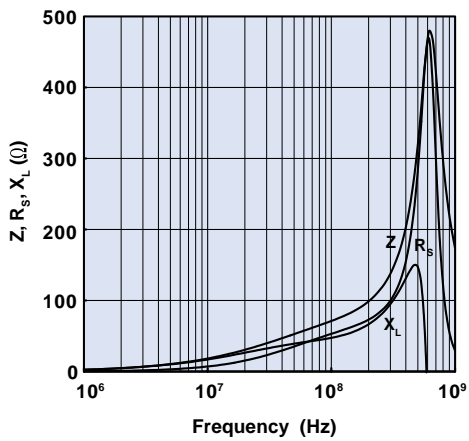
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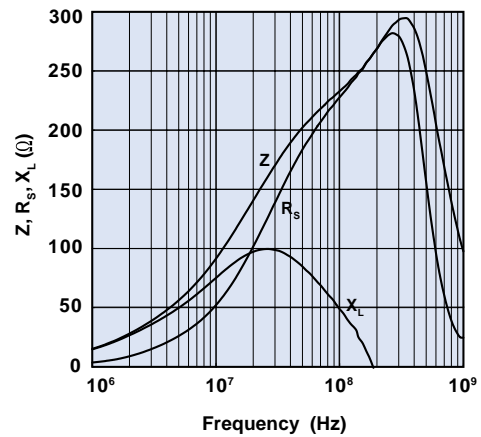
**Figure 7** Impedance, Reactance, and Resistance vs. Frequency for 43 material split round cable EMI suppression core 2643665806.



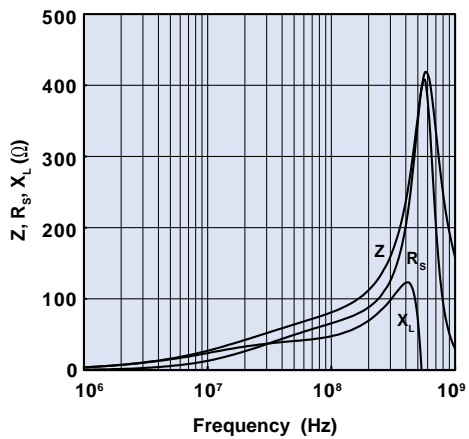
**Figure 8** Impedance, Reactance, and Resistance vs. Frequency for 43 material split round cable EMI suppression core 2643167251.



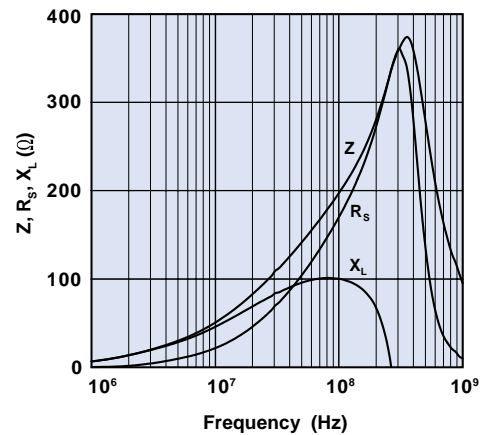
**Figure 9** Impedance, Reactance, and Resistance vs. Frequency for 43 material split round cable EMI suppression core 2643800506.



**Figure 10** Impedance, Reactance, and Resistance vs. Frequency for 43 material split round cable EMI suppression core 2643164151.



**Figure 11** Impedance, Reactance, and Resistance vs. Frequency for 43 material split round cable EMI suppression core 2643806406.



**Figure 12** Impedance, Reactance, and Resistance vs. Frequency for 44 material split round cable EMI suppression core 2644173551.

# Split Round Cable EMI Suppression Cores

Several cases are available which makes the assembly of the core halves a snap. The polypropylene cases have a flammability rating of UL 94-V0.

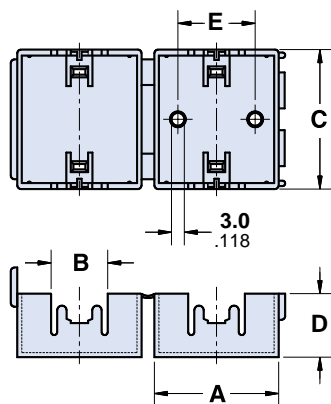


Figure 1

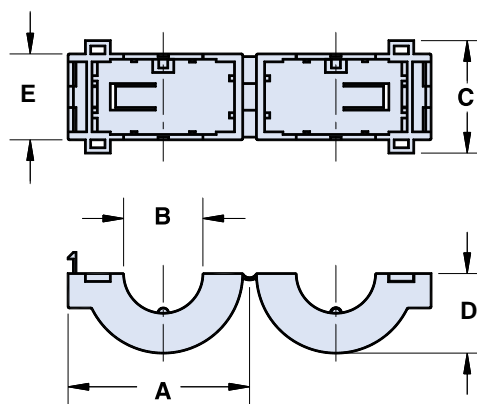


Figure 2

**Dimensions** (Bold numbers are in millimeters, light numbers are nominal in inches.)

Part Number Case	Fig.	A	B	C	D	E	Part Number* Case & 2 Ferrite Parts
0199164251	1	<b>17.9</b> .705	<b>7.0</b> .275	<b>32.3</b> 1.272	<b>9.2</b> .362	<b>9.0</b> .354	0443164251
0199625006	2	<b>24.7</b> .972	<b>7.9</b> .311	<b>22.8</b> .898	<b>10.2</b> .402	<b>17.8</b> .701	0443625006
0199665806	2	<b>26.3</b> 1.035	<b>9.2</b> .362	<b>21.4</b> .843	<b>11.0</b> .433	<b>16.4</b> .646	0443665806
0199167251	1	<b>22.1</b> .870	<b>10.2</b> .402	<b>32.3</b> 1.272	<b>11.0</b> .433	<b>9.0</b> .354	0443167251
0199800506 <sup>+</sup>	2	<b>29.7</b> 1.169	<b>12.8</b> .504	<b>20.6</b> .811	<b>12.7</b> .500	<b>15.6</b> .614	0443800506
0199164151	1	<b>29.0</b> 1.142	<b>13.4</b> .528	<b>32.5</b> 1.280	<b>14.8</b> .583	<b>18.0</b> .709	0443164151
0199806406	2	<b>34.3</b> 1.350	<b>15.0</b> .591	<b>21.2</b> .835	<b>15.0</b> .591	<b>16.2</b> .638	0443806406
0199173551	1	<b>29.2</b> 1.150	<b>19.4</b> .764	<b>42.0</b> 1.654	<b>14.7</b> .579	-	0444173551

\* See page 102.

<sup>+</sup> Case is Nylon 6/6 - Flammability rating UL94-V2.