



April 1, 2010 -TDK-EPC (magnetic group of TDK Corporation) announced the intention to discontinue the manufacture of all TDK Proprietary bobbins and mounting hardware supplied by MH&W International Corp. The bobbins and mounting hardware produced by Epcos Corp were not affected and in many cases MH&W offers Epcos bobbins and mounting hardware as the alternative product.

MH&W International continued to support the product for a period of 12 months from the announcement date above by giving our customers a last time buy and allowing the delivery of the product to be scheduled. TDK Corp agreed to allow MH&W International a last time buy on all active products

Recently, MH&W entered into a partnership with a Japanese company to act as our agent in Japan to locate bobbins and hardware and handle all negotiations as well as export control. We can now announce that with our partnership, MH&W has access to most of the original TDK tooling. We have identified the tooling that will be available for production. MH&W has obtained pricing and has started receiving the initial orders for the bobbins.

Below is the catalog of bobbins that MH&W has access to. These bobbins are all bobbins that are manufactured in accordance with the original TDK specifications.

All bobbins are certified to meet the requirements of RoHS. MH&W continues to add the ROHS to the part number to confirm that the parts meet RoHS requirements.

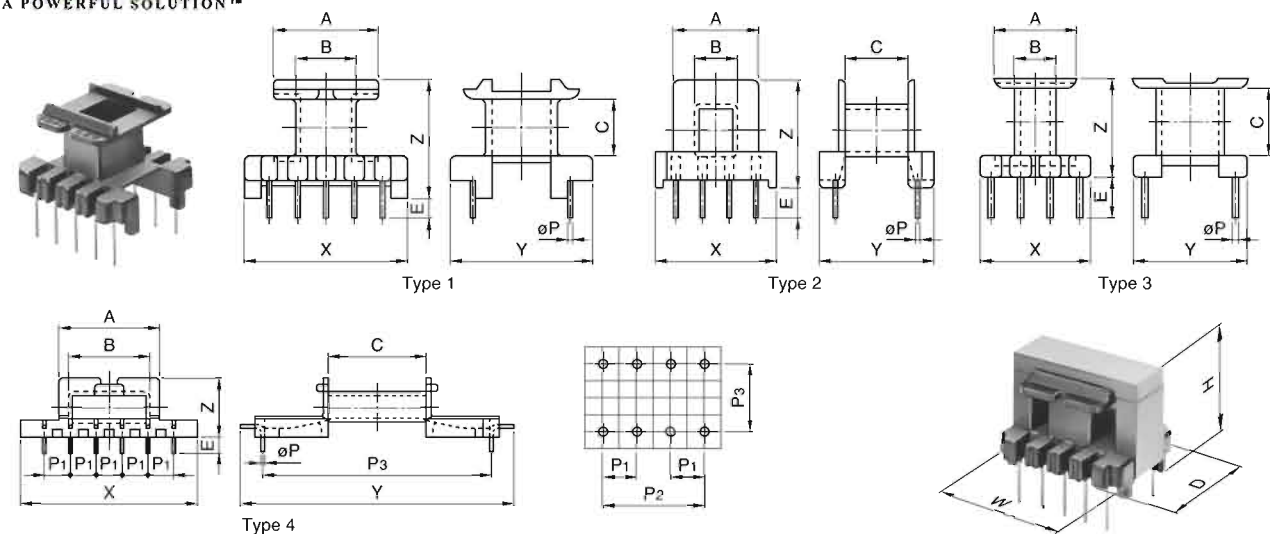
Included in this catalog is the list of materials for the bobbins and the pins.

## Content

| Bobbin shape                         | Page    |
|--------------------------------------|---------|
| EE - EI Bobbins Pinned BE8 - BE19    | 3       |
| EE - EI Bobbins Pinned BE22 - BE40   | 4       |
| EE - EI Bobbins Pinned BE50 - BE60   | 5       |
| EE - EI Bobbins Unpinned BE19 - BE60 | 6       |
| EER Bobbins Vertical & Horizontal    | 7 - 8   |
| EP Bobbins BEP7 - BEP20              | 9       |
| EPC Bobbin                           | 10 - 12 |
| EPC Clips                            | 13      |
| LP Bobbins                           | 14      |
| PQ Bobbins Phenolic Steel Wire Pin   | 15 - 16 |
| RM Bobbins                           | 17 - 18 |
| Surface Mount Bobbin                 | 18      |
| Bobbin & Pin Material                | 19 - 23 |

# MH&W International Corporation

## EE and EI Bobbin



| Part No.         | Type | Dimensions in |              | C            | E            | X             | Y             | Z             | t             |
|------------------|------|---------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
|                  |      | A             | B            |              |              |               |               |               |               |
| BE8-116CPHFR     | 2    | 5.75<br>.226  | 3.0<br>.118  | 4.78<br>.188 | 2.70<br>.106 | 8.00<br>.315  | 8.80<br>.346  | 8.40<br>.331  | 0.35<br>.014  |
| BE10-118CPSFR    | 3    | 7.2<br>.283   | 3.53<br>.139 | 6.6<br>.260  | 3.85<br>.152 | 10.15<br>.400 | 10.2<br>.402  | 9.0<br>.354   | 0.35<br>.014  |
| BE12.5-1110CPFR  | 1    | 8.5<br>.335   | 3.58<br>.141 | 3.5<br>.138  | 3.25<br>.128 | 12.35<br>.486 | 12.35<br>.486 | 8.3<br>.327   | 0.325<br>.013 |
| BE13-1110CPSFR   | 3    | 9.95<br>.392  | 4.05<br>.159 | 7.4<br>.291  | 3.7<br>.146  | 12.1<br>.476  | 12.6<br>.496  | 10.4<br>.409  | 0.40<br>.016  |
| BE16-116CPFR     | 3    | 11.48<br>.452 | 5.15<br>.203 | 8.5<br>.335  | 3.8<br>.150  | 11.48<br>.452 | 13.0<br>.512  | 11.5<br>.453  | 0.375<br>.015 |
| BE16-118CPHFR    | 2    | 11.4<br>.449  | 5.15<br>.203 | 8.6<br>.339  | 4.0<br>.157  | 15.0<br>.591  | 13.4<br>.528  | 13.30<br>.524 | 0.325<br>.013 |
| BE16-1110CPNFR   | 1    | 11.35<br>.447 | 5.65<br>.222 | 8.20<br>.323 | 3.8<br>.150  | 16.0<br>.630  | 13.0<br>.512  | 13.90<br>.547 | 0.55<br>.022  |
| BES-16-1110CPSFR | 3    | 12.2<br>.480  | 4.55<br>.179 | 8.7<br>.343  | 5.0<br>.197  | 15.9<br>.426  | 14.0<br>.551  | 11.7<br>.461  | 0.45<br>.018  |
| BE19-116CPFR     | 3    | 13.8<br>.543  | 5.8<br>.228  | 9.1<br>.358  | 5.0<br>.197  | 13.8<br>.543  | 16.5<br>.650  | 12.05<br>.474 | 0.35<br>.014  |
| BE19-118CPHFR    | 2    | 14.0<br>.551  | 6.65<br>.262 | 9.0<br>.354  | 6.0<br>.236  | 20.0<br>.787  | 16.2<br>.638  | 18.6<br>.732  | 0.80<br>.031  |

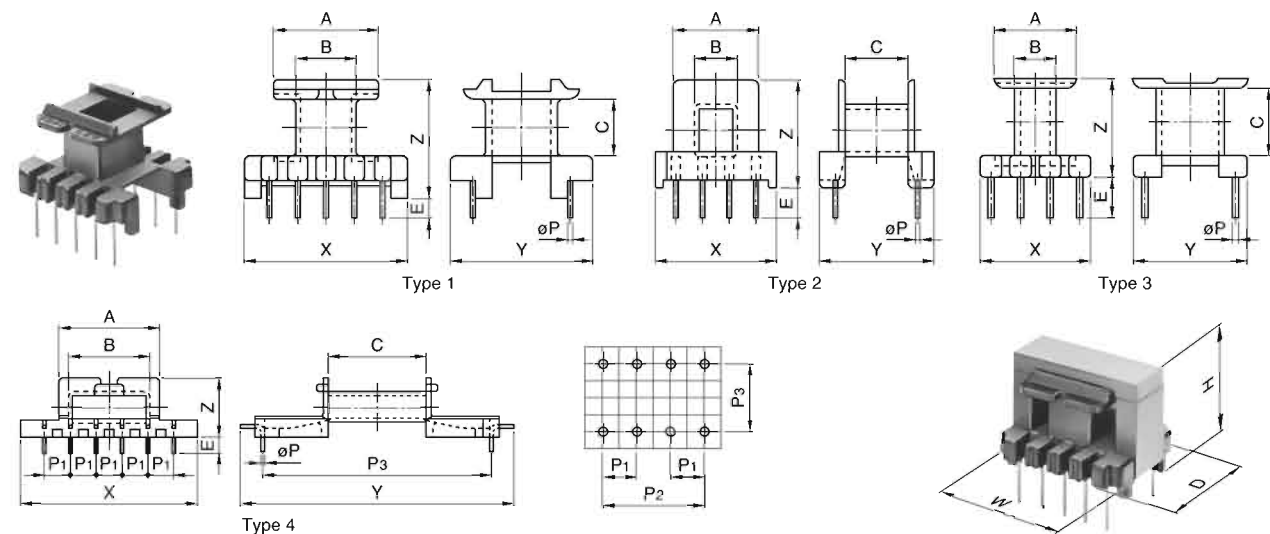
| Part No.         | Dimensions in mm |         |         |         | Terminal pins | W<br>D (mm)<br>H     | Parameter             |          | Wt (g) | Accessory item |
|------------------|------------------|---------|---------|---------|---------------|----------------------|-----------------------|----------|--------|----------------|
|                  | øP (mm)          | P1 (mm) | P2 (mm) | P3 (mm) |               |                      | Aw (mm <sup>2</sup> ) | ø w (mm) |        |                |
| BE8-116CPHFR     | 0.6              | 2.5     | 5.0     | 7.0     | 6             | 8.3<br>8.0<br>8.0    | 5.3                   | 19.9     | 0.26   | —              |
| BE10-118CPSFR    | 0.5              | 2.6     | 7.7     | 8.0     | 8             | 10.4<br>11.2<br>11.2 | 12.2                  | 23.8     | 0.34   | —              |
| BE12.5-1110CPFR  | 0.6              | 2.5     | 10.0    | 7.5     | 10            | 12.7<br>12.5<br>9.1  | 8.6                   | 27.2     | 0.64   | —              |
| BE13-1110CPSFR   | 0.6              | 2.5     | 10.0    | 8.6     | 10            | 13.2<br>12.7<br>12.3 | 22.2                  | 31.3     | 0.63   | —              |
| BE16-116CPFR     | 0.6              | 3.1     | 6.2     | 9.2     | 6             | 16.3<br>14.6<br>14.6 | 27.3                  | 32.5     | 0.63   | —              |
| BE16-118CPHFR    | 0.6              | 3.0     | 9.0     | 11.0    | 8             | 16.5<br>14.6<br>13.6 | 26.7                  | 33.1     | 0.84   | —              |
| BE16-1110CPNFR   | 0.6              | 3.25    | 13.0    | 10.5    | 10            | 16.3<br>15.1<br>15.6 | 23.2                  | 33.0     | 1.2    | —              |
| BES-16-1110CPSFR | 0.6              | 3.3     | 13.2    | 11.0    | 10            | 16.3<br>14.1<br>16.3 | 33.1                  | 37.1     | 1.0    | —              |
| BE19-116CPFR     | ø0.5             | 4.0     | 8.0     | 12.5    | 6             | 20.3<br>18.2<br>18.2 | 36.4                  | 36.8     | 0.95   | —              |
| BE19-118CPHFR    | 0.8              | 5.08    | 15.24   | 12.7    | 8             | 20.3<br>18.2<br>18.8 | 33.1                  | 39.1     | 2.4    | —              |

UL Grade: 94V-0, Material: FR phenol, Pin material: Steel wire (Solder plated)

Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

\* Minimum thickness of bobbin inside which core is placed, including flanges.

Effective April 1, 2011. MH&W will import Bobbins and Accessories  
Manufactured from the Original TDK Tooling



| Part No.          | Type | Dimensions in |              | C            | E           | X             | Y             | Z             | t*           |
|-------------------|------|---------------|--------------|--------------|-------------|---------------|---------------|---------------|--------------|
|                   |      | A             | B            |              |             |               |               |               |              |
| BE22-118CPFR      | 1    | 12.5<br>.492  | 7.9<br>.311  | 8.45<br>.332 | 6.0<br>.236 | 22.0<br>.866  | 17.0<br>.669  | 17.3<br>.681  | 0.85<br>.033 |
| BE22/19/6-118CPFR | 1    | 15.2<br>.598  | 7.9<br>.311  | 8.45<br>.332 | 6.0<br>.236 | 22.0<br>.866  | 17.0<br>.669  | 17.3<br>.681  | 0.85<br>.033 |
| BE25-118CPFR      | 1    | 18.1<br>.713  | 9.1<br>.358  | 9.8<br>.386  | 6.0<br>.236 | 25.0<br>.984  | 18.0<br>.709  | 19.3<br>.760  | 0.90<br>.035 |
| BE28-1110CPLFR    | 1    | 18.1<br>.713  | 9.9<br>.390  | 9.6<br>.378  | 7.0<br>.276 | 28.0<br>1.102 | 25.0<br>.984  | 20.6<br>.811  | 0.90<br>.035 |
| BE30-1110CPFR     | 1    | 19.2<br>.756  | 13.1<br>.516 | 13.7<br>.539 | 7.0<br>.276 | 30.0<br>1.181 | 25.0<br>.984  | 24.65<br>.970 | 0.85<br>.033 |
| BE30-1112CPFR     | 1    | 19.4<br>.764  | 13.1<br>.516 | 13.7<br>.539 | 7.0<br>.276 | 30.0<br>1.181 | 25.0<br>.984  | 24.65<br>.970 | 0.70<br>.028 |
| BE33-1112CPLFR    | 1    | 23.1<br>.909  | 12.4<br>.488 | 16.6<br>.654 | 7.0<br>.276 | 33.0<br>1.299 | 28.0<br>1.102 | 28.6<br>1.126 | 0.90<br>.035 |
| BE35-1112CPLFR    | 1    | 24.0<br>.945  | 12.7<br>.500 | 15.7<br>.618 | 7.0<br>.276 | 35.0<br>1.378 | 25.0<br>.984  | 28.7<br>1.130 | 0.90<br>.035 |
| BE40-1112CPFR     | 1    | 26.5<br>1.043 | 14.0<br>.551 | 17.3<br>.681 | 7.0<br>.276 | 36.0<br>1.417 | 30.0<br>1.181 | 30.5<br>1.201 | 0.80<br>.031 |
| BE40-1112CPNFR    | 1    | 26.5<br>1.043 | 14.0<br>.551 | 17.3<br>.681 | 7.0<br>.276 | 36.0<br>1.417 | 30.0<br>1.181 | 30.5<br>1.201 | 0.80<br>.031 |

| Part No.          | Dimensions in mm |         |         |         |          | Terminal pins        | Parameter             |          | Wt (g) | Accessory item     |
|-------------------|------------------|---------|---------|---------|----------|----------------------|-----------------------|----------|--------|--------------------|
|                   | øP (mm)          | P1 (mm) | P2 (mm) | P3 (mm) | W D (mm) |                      | Aw (mm <sup>2</sup> ) | l w (mm) |        |                    |
| BE22-118CPFR      | 0.8              | 5.0     | 15.0    | 12.5    | 8        | 22.3<br>20.1         | 20.0                  | 38.6     | 2.3    | —                  |
| BE22/19/6-118CPFR | 0.8              | 5.0     | 15.0    | 12.5    | 8        | 22.4<br>17.1<br>19.1 | 31.5                  | 42.8     | 2.7    | —                  |
| BE25-118CPFR      | 0.8              | 5.0     | 15.0    | 12.5    | 8        | 25.8<br>18.1<br>20.5 | 42.5                  | 49.4     | 3.5    | —                  |
| BE28-1110CPLFR    | 0.8              | 5.0     | 20.0    | 17.5    | 10       | 28.5<br>25.1<br>22.7 | 39.4                  | 59.1     | 5.0    | —                  |
| BE30-1110CPFR     | 0.8              | 5.0     | 20.0    | 20.0    | 10       | 30.4<br>28.1<br>28.6 | 44.5                  | 61.0     | 4.9    | FE-30-F<br>FE-30-G |
| BE30-1112CPFR     | 0.8              | 5.0     | 25.0    | 20.0    | 12       | 30.4<br>28.6         | 43.2                  | 58.0     | 6.2    | —                  |
| BE33-1112CPLFR    | 0.8              | 5.0     | 25.0    | 22.5    | 12       | 33.5<br>28.1<br>31.2 | 88.8                  | 72.3     | 6.8    | —                  |
| BE35-1112CPLFR    | 0.8              | 5.0     | 25.0    | 20.0    | 12       | 35.5<br>30.9         | 88.7                  | 68.5     | 7.7    | —                  |
| BE40-1112CPFR     | 1.0              | 5.0     | 25.0    | 25.0    | 12       | 40.5<br>30.2<br>35.8 | 108.0                 | 76.0     | 9.7    | FE-40-F<br>FE-40-G |
| BE40-1112CPNFR    | 1.0              | 5.0     | 25.0    | 22.5    | 12       | 40.5<br>30.2<br>35.7 | 108.1                 | 75.6     | 9.8    | —                  |

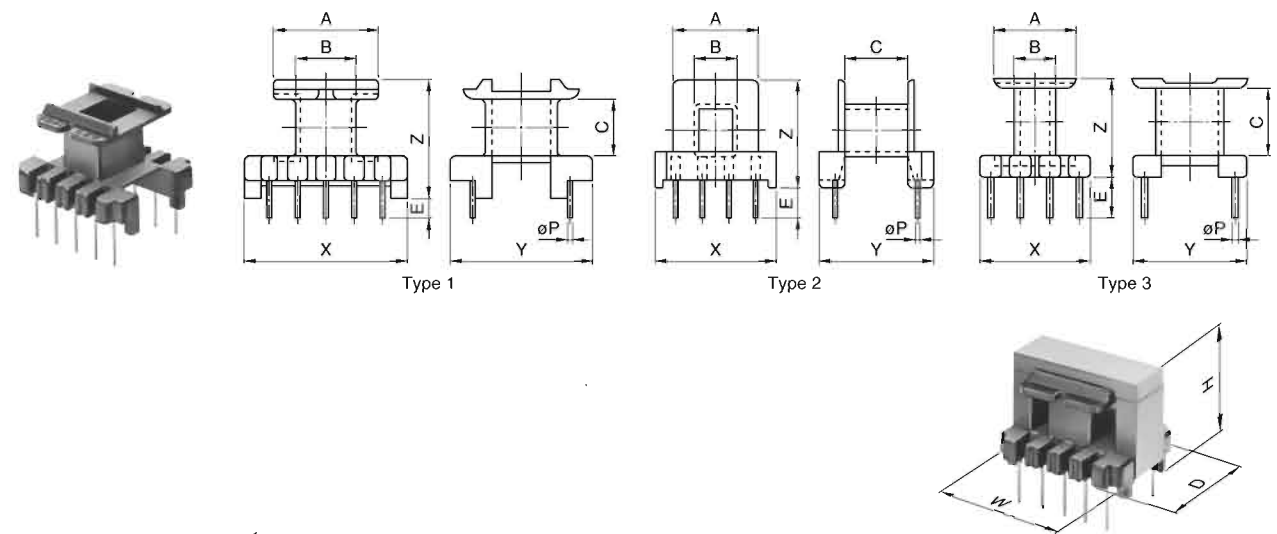
UL Grade: 94V-0, Material: FR phenol, Pin material: Steel wire (Solder plated)

Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

\* Minimum thickness of bobbin inside which core is placed, including flanges.

Effective April 1, 2011, MH&W will import Bobbins and Accessories  
Manufactured from the Original TDK Tooling

• All specifications are subject to change without notice.



| Part No.      | Type | Dimensions in |               | C            | E            | X             | Y             | Z              | t*           |
|---------------|------|---------------|---------------|--------------|--------------|---------------|---------------|----------------|--------------|
|               |      | A             | B             |              |              |               |               |                |              |
| BE50-1112CPFR | 1    | 33.2<br>1.307 | 17.2<br>.677  | 21.3<br>.839 | 9.0<br>.354  | 50.0<br>1.969 | 36.0<br>1.417 | 36.65<br>1.443 | 0.85<br>.033 |
| BE60-1112CPFR | 1    | 43.3<br>1.705 | 18.60<br>.732 | 23.8<br>.937 | 10.0<br>.394 | 56.0<br>2.205 | 45.0<br>1.772 | 38.9<br>1.531  | 0.95<br>.037 |

| Part No.      | Dimensions in mm |                        |                        |                        |                  | Parameter            |                          | Wt<br>(g)   | Accessory item           |
|---------------|------------------|------------------------|------------------------|------------------------|------------------|----------------------|--------------------------|-------------|--------------------------|
|               | ØP<br>(mm)       | P <sub>1</sub><br>(mm) | P <sub>2</sub><br>(mm) | P <sub>3</sub><br>(mm) | Terminal<br>pins | W<br>D (mm)<br>H     | Aw<br>(mm <sup>2</sup> ) | Ø w<br>(mm) |                          |
| BE50-1112CPFR | 1.0              | 7.5                    | 37.5                   | 27.5                   | 12               | 50.7<br>36.2<br>23.8 | 170.0                    | 94.0        | 17<br>FE-50-F<br>FE-50-G |
| BE60-1112CPFR | 1.0              | 7.5                    | 37.5                   | 35.0                   | 12               | 50.8<br>45.2<br>45.1 | 294.0                    | 113.0       | 29<br>FE-60-F<br>FE-60-G |

UL Grade: 94V-0, Material: FR phenol, Pin material: Steel wire (Solder plated)

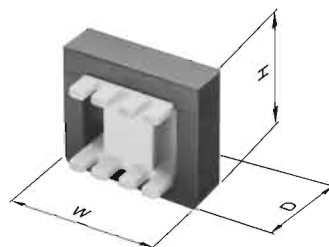
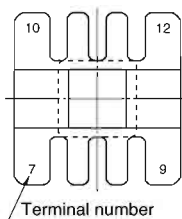
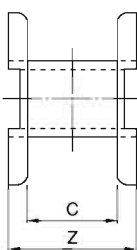
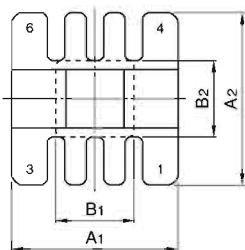
Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

\* Minimum thickness of bobbin inside which core is placed, including flanges.

Effective April 1, 2011, MH&W will import Bobbins and Accessories  
Manufactured from the Original TDK Tooling

# MH&W International Corporation

## EE and EI Bobbins



| Part No.   | Dimensions in  |                | B <sub>1</sub> | B <sub>2</sub> | C     | Z     | t*    | W<br>D (mm)<br>H |
|------------|----------------|----------------|----------------|----------------|-------|-------|-------|------------------|
|            | A <sub>1</sub> | A <sub>2</sub> |                |                |       |       |       |                  |
| BE-19-5116 | 13.7           | 14.8           | 6.4            | 7.15           | 9.33  | 11.93 | 0.60  | 20.3             |
|            | .539           | .583           | .252           | .281           | .367  | .470  | .024  | 14.9<br>16.2     |
| BE-22-5116 | 12.53          | 13.0           | 7.7            | 8.0            | 8.68  | 11.28 | 0.575 | 22.3             |
|            | .493           | .512           | .303           | .315           | .342  | .444  | .023  | 13.1<br>19.5     |
| BE-25-5116 | 18.1           | 19.1           | 8.7            | 9.2            | 10.13 | 14.6  | 0.725 | 25.8             |
|            | .713           | .752           | .343           | .362           | .399  | .575  | .029  | 19.2<br>18.7     |
| BE-30-5112 | 18.85          | 20.8           | 13.0           | 13.0           | 13.95 | 18.5  | 0.60  | 30.4             |
|            | .742           | .819           | .512           | .512           | .549  | .728  | .024  | 21.1<br>27.2     |
| BE-40-5112 | 26.35          | 29.1           | 14.4           | 15.4           | 17.6  | 23.55 | 0.80  | 40.5             |
|            | 1.037          | 1.146          | .567           | .606           | .693  | .927  | .031  | 29.4<br>35.3     |
| BE-50-5112 | 32.75          | 35.55          | 17.4           | 18.4           | 22.1  | 30.1  | 0.80  | 50.7             |
|            | 1.289          | 1.400          | .685           | .724           | .870  | 1.185 | .031  | 35.8<br>43.0     |
| BE-60-5112 | 42.75          | 45.75          | 19.5           | 20.5           | 24.1  | 34.1  | 1.30  | 60.8             |
|            | 1.683          | 1.801          | .768           | .807           | .949  | 1.343 | .051  | 46.0<br>45.0     |

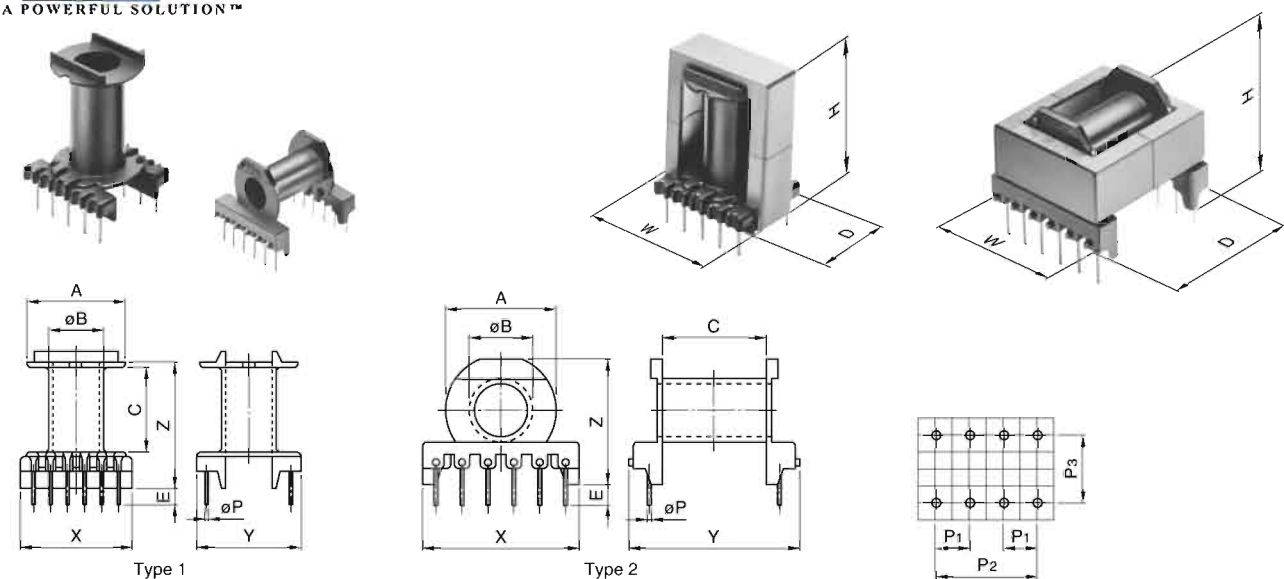
| Part No.   | Parameter                |             |           | Material | Accessory item     |
|------------|--------------------------|-------------|-----------|----------|--------------------|
|            | Aw<br>(mm <sup>2</sup> ) | ℓ w<br>(mm) | Wt<br>(g) |          |                    |
| BE-19-5116 | 35.7                     | 37.9        | 0.55      | 6-Nylon  |                    |
| BE-22-5116 | 21.7                     | 38.2        | 0.45      | 6-Nylon  |                    |
| BE-25-5116 | 47.6                     | 50.6        | 1.3       | 6-Nylon  |                    |
| BE-30-5112 | 47.6                     | 66.0        | 1.5       | 6-Nylon  | FE-30-F<br>FE-30-G |
| BE-40-5112 | 110.0                    | 85.0        | 3.8       | 6-Nylon  | FE-40-F<br>FE-40-G |
| BE-50-5112 | 178.0                    | 100.0       | 6.6       | 6-Nylon  | FE-50-F<br>FE-50-G |
| BE-60-5112 | 289.0                    | 128.0       | 15        | 6-Nylon  | FE-60-F<br>FE-60-G |

UL Grade: 94V-0

Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

\* Minimum thickness of bobbin inside which core is placed, including flanges.

Effective April 1, 2011, MH&W will import Bobbins and Accessories  
Manufactured from the Original TDK Tooling



| Part No.           | Type | Dimensions in mm<br>inches |               |               |             |               |               |                |              |
|--------------------|------|----------------------------|---------------|---------------|-------------|---------------|---------------|----------------|--------------|
|                    |      | A                          | øB            | C             | E           | X             | Y             | Z              | t*           |
| BEER25.5-118CPFR   | 1    | 19.53<br>.769              | 9.9<br>.390   | 10.05<br>.396 | 4.5<br>.177 | 22.0<br>.866  | 19.6<br>.772  | 16.95<br>.667  | 0.95<br>.037 |
| BEER28-1110CPFR    | 1    | 20.9<br>.823               | 12.3<br>.484  | 16.7<br>.657  | 4.5<br>.177 | 24.8<br>.976  | 23.0<br>.906  | 24.00<br>.945  | 0.95<br>.037 |
| BEER28L-1110CPFR   | 1    | 20.9<br>.823               | 12.3<br>.484  | 22.4<br>.882  | 4.5<br>.177 | 24.8<br>.976  | 23.0<br>.906  | 29.70<br>1.169 | 0.95<br>.037 |
| BEER35-1112CPFR    | 1    | 25.4<br>1.000              | 13.7<br>.539  | 26.1<br>1.028 | 5.5<br>.217 | 30.0<br>1.181 | 28.5<br>1.122 | 37.50<br>1.476 | 0.98<br>.039 |
| BEER40-1112CPFR    | 1    | 28.7<br>1.130              | 15.8<br>.622  | 27.5<br>1.083 | 5.0<br>.197 | 32.0<br>1.260 | 30.0<br>1.181 | 38.90<br>1.531 | 0.98<br>.039 |
| BEER42-1114CPFR    | 1    | 29.1<br>1.146              | 17.95<br>.707 | 27.5<br>1.083 | 5.0<br>.197 | 38.0<br>1.496 | 30.0<br>1.181 | 39.90<br>1.571 | 0.95<br>.037 |
| BEER42/20-1112CPFR | 1    | 31.5<br>1.240              | 19.85<br>.781 | 27.3<br>1.075 | 5.0<br>.197 | 43.5<br>1.713 | 37.0<br>1.457 | 39.70<br>1.563 | 0.95<br>.037 |

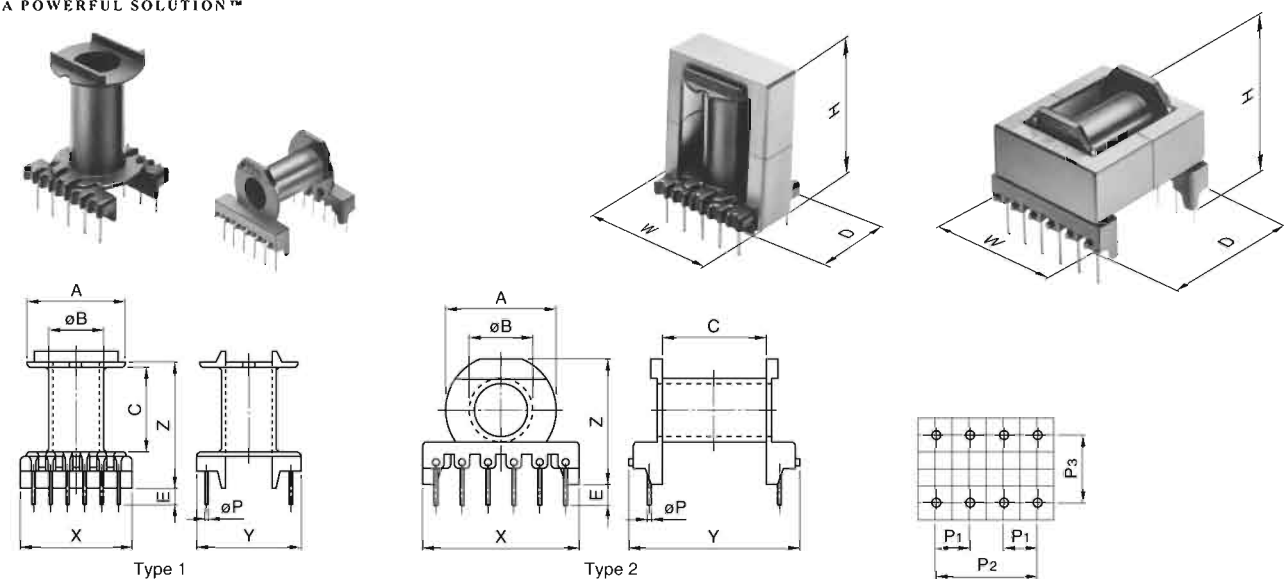
| Part No.           | Dimensions in mm |            |            |            |                  | Parameter        |             |             | Wt<br>(g) |
|--------------------|------------------|------------|------------|------------|------------------|------------------|-------------|-------------|-----------|
|                    | øP<br>(mm)       | P1<br>(mm) | P2<br>(mm) | P3<br>(mm) | Terminal<br>pins | W<br>D (mm)<br>H | Aw<br>(mm²) | ø w<br>(mm) |           |
| BEER25.5-118CPFR   | 0.8              | 5.0        | 15         | 12.5       | 8                | 26<br>20<br>21   | 48.4        | 46.2        | 2.7       |
| BEER28-1110CPFR    | 0.8              | 5.0        | 20         | 17.5       | 10               | 29<br>23<br>29   | 71.8        | 52.2        | 3.5       |
| BEER28L-1110CPFR   | 0.8              | 5.0        | 20         | 17.5       | 10               | 29<br>23<br>35   | 96.3        | 52.2        | 3.9       |
| BEER35-1112CPFR    | 1.0              | 5.0        | 25         | 22.5       | 12               | 36<br>29<br>44   | 152.7       | 61.4        | 7.7       |
| BEER40-1112CPFR    | 1.0              | 5.0        | 25         | 25         | 12               | 41<br>30<br>46   | 178.8       | 69.9        | 8.9       |
| BEER42-1114CPFR    | 1.0              | 5.0        | 30         | 25         | 14               | 43<br>30<br>47   | 153.3       | 73.9        | 9.8       |
| BEER42/20-1112CPFR | 1.0              | 7.5        | 37.5       | 30         | 12               | 43<br>37<br>46   | 159.7       | 80.6        | 12        |

UL Grade: 94V-0, Material: FR phenol, Pin material: Steel wire (Solder plated)

Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

\* Minimum thickness of bobbin inside which core is placed, including flanges.

Effective April 1, 2011, MH&W will import Bobbins and Accessories  
Manufactured from the Original TDK Tooling



| Part No.          | Type | Dimensions in |       | C     | E    | X     | Y     | Z     | t*   |
|-------------------|------|---------------|-------|-------|------|-------|-------|-------|------|
|                   |      | A             | øB    |       |      |       |       |       |      |
| BEER49-1118CPFR   | 1    | 35.95         | 20.3  | 21.45 | 4.5  | 49.0  | 37.0  | 34.95 | 1.05 |
|                   |      | 1.415         | .799  | .844  | .177 | 1.929 | 1.457 | 1.376 | .041 |
| BEER28-1112CPHFR  | 2    | 20.9          | 12.0  | 16.1  | 5.0  | 30.0  | 31.3  | 25.0  | 0.83 |
|                   |      | .823          | .472  | .634  | .197 | 1.181 | 1.232 | .984  | .033 |
| BEER28L-1112CPHFR | 2    | 20.9          | 12.0  | 21.8  | 5.0  | 30.0  | 37.0  | 25.0  | 0.83 |
|                   |      | .823          | .472  | .858  | .197 | 1.181 | 1.457 | .984  | .033 |
| BEER35-1116CPHFR  | 2    | 25.2          | 13.6  | 26.4  | 4.5  | 40.0  | 45.5  | 28.95 | 0.93 |
|                   |      | .992          | .535  | 1.039 | .177 | 1.575 | 1.791 | 1.140 | .037 |
| BEER40-1116CPHFR  | 2    | 28.6          | 15.7  | 27.5  | 4.2  | 40.0  | 44.0  | 31.75 | 0.93 |
|                   |      | 1.126         | .618  | 1.083 | .165 | 1.575 | 1.732 | 1.250 | .037 |
| BEER42-1116CPHFR  | 2    | 29.0          | 17.90 | 27.3  | 5.0  | 40.15 | 44.25 | 34.5  | 0.93 |
|                   |      | 1.142         | .705  | 1.075 | .197 | 1.581 | 1.742 | 1.358 | .037 |

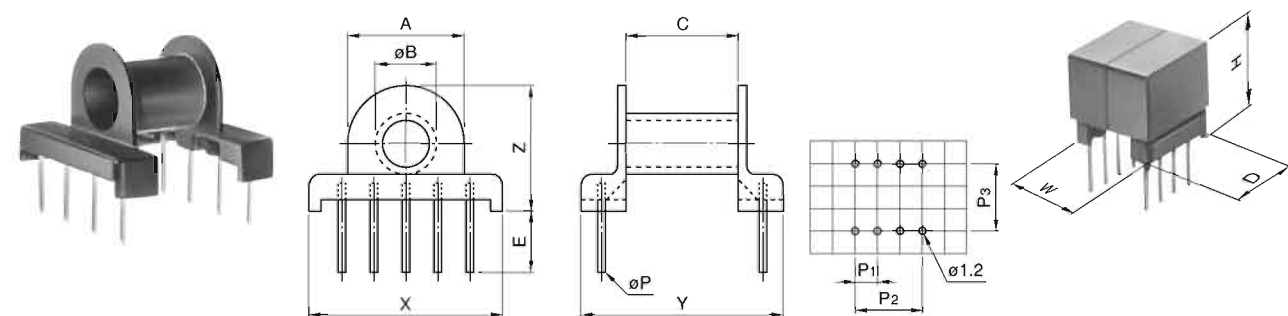
| Part No.          | Dimensions in mm |         |         |         | Terminal pins | W<br>D (mm)<br>H | Parameter |          | Wt (g) |
|-------------------|------------------|---------|---------|---------|---------------|------------------|-----------|----------|--------|
|                   | øP (mm)          | P1 (mm) | P2 (mm) | P3 (mm) |               |                  | Aw (mm²)  | ø w (mm) |        |
| BEER49-1118CPFR   | 0.8              | 5.0     | 40      | 30      | 18            | 50<br>37<br>43   | 167.8     | 88.4     | 15     |
| BEER28-1112CPHFR  | 0.8              | 5.0     | 25      | 25      | 12            | 31<br>32<br>26   | 71.6      | 51.6     | 5.2    |
| BEER28L-1112CPHFR | 0.8              | 5.0     | 25      | 30      | 12            | 31<br>38<br>26   | 97.0      | 51.7     | 5.5    |
| BEER35-1116CPHFR  | ø0.75            | 5.0     | 35      | 35      | 16            | 41<br>46<br>31   | 154.4     | 60.8     | 11     |
| BEER40-1116CPHFR  | 1.0              | 5.0     | 35      | 35      | 16            | 41<br>45<br>32   | 170.6     | 69.9     | 11     |
| BEER42-1116CPHFR  | 1.0              | 5.0     | 35      | 35      | 16            | 43<br>46<br>35   | 148.5     | 73.8     | 12     |

UL Grade: 94V-0, Material: FR phenol, Pin material: Steel wire (Solder plated)

Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

\* Minimum thickness of bobbin inside which core is placed, including flanges.

Effective April 1, 2011, MH&W will import Bobbins and Accessories  
Manufactured from the Original TDK Tooling



| Part No.      | Dimensions in |              | C            | E            | X            | Y            | Z            | t*           |
|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|               | A             | øB           |              |              |              |              |              |              |
| BEP7-316DFR   | 7.0<br>.276   | 4.5<br>.177  | 3.1<br>.122  | 3.25<br>.128 | 9.2<br>.362  | 7.4<br>.291  | 8.25<br>.325 | 0.25<br>.010 |
| BEP10-318DFR  | 8.8<br>.346   | 4.8<br>.189  | 5.6<br>.220  | 5.2<br>.205  | 11.0<br>.433 | 11.0<br>.433 | 10.2<br>.402 | 0.40<br>.016 |
| BEP13-3110DFR | 9.6<br>.378   | 5.7<br>.224  | 7.7<br>.303  | 5.3<br>.209  | 13.2<br>.520 | 13.5<br>.531 | 10.8<br>.425 | 0.38<br>.015 |
| BEP17-318DFR  | 11.4<br>.449  | 7.2<br>.283  | 9.4<br>.370  | 5.0<br>.197  | 19.0<br>.748 | 19.0<br>.748 | 13.2<br>.520 | 0.35<br>.014 |
| BEP20-8110DFR | 15.9<br>.626  | 10.2<br>.402 | 12.4<br>.488 | 5.0<br>.197  | 24.7<br>.972 | 21.5<br>.846 | 16.6<br>.654 | 0.43<br>.017 |

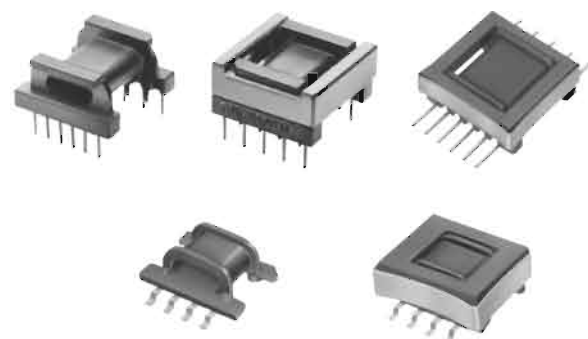
| Part No.      | Dimensions in mm |         |         |         | Terminal pins | W<br>D (mm)<br>H       | Parameter             |          | Wt (g) | Accessory item |
|---------------|------------------|---------|---------|---------|---------------|------------------------|-----------------------|----------|--------|----------------|
|               | øP (mm)          | P1 (mm) | P2 (mm) | P3 (mm) |               |                        | Aw (mm <sup>2</sup> ) | ø w (mm) |        |                |
| BEP7-316DFR   | 0.6              | 2.5     | 5.0     | 5.0     | 6             | 9.4<br>7.5<br>9.6      | 3.85                  | 18.1     | 0.3    | FEP-7-C        |
| BEP10-318DFR  | 0.6              | 2.5     | 7.5     | 7.5     | 8             | 11.8<br>11.2<br>11.8   | 11.7                  | 21.7     | 0.65   | FEP-10-C       |
| BEP13-3110DFR | 0.6              | 2.5     | 10.0    | 10.0    | 10            | 13.4<br>13.7<br>12.7   | 16.6                  | 23.9     | 0.74   | FEP-13-C       |
| BEP17-318DFR  | 0.6              | 5.0     | 15.0    | 15.0    | 8             | 19.25<br>19.25<br>15.7 | 19.0                  | 29.1     | 1.3    | FEP-17-C       |
| BEP20-8110DFR | 0.6              | 5.0     | 20.0    | 17.5    | 10            | 25.0<br>21.8<br>19.6   | 33.2                  | 40.8     | 1.8    | FEP-20-C       |

UL Grade: 94V-0, Material: FR phenol, Pin material: Phosphor bronze (Solder plated)

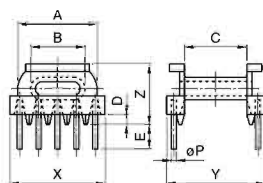
Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

\* Minimum thickness of bobbin inside which core is placed, including flanges

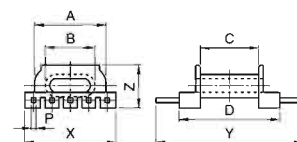
Effective April 1, 2011, MH&W will import Bobbins and Accessories  
Manufactured from the Original TDK Tooling



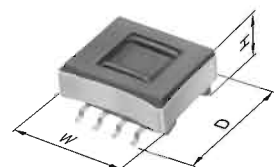
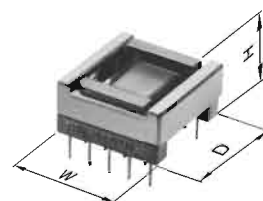
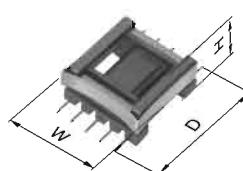
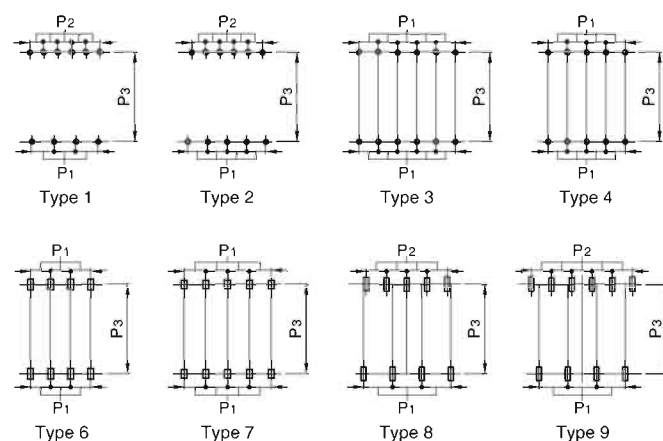
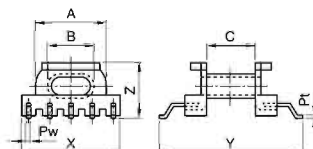
Lead through type



Drop in type



SMD type



Effective April 1, 2011, MH&W will import Bobbins and Accessories  
Manufactured from the Original TDK Tooling

### Lead through type

| Part No.          | Dimensions in<br>mm<br>inches |               |               |             |             |               |               |              |             |
|-------------------|-------------------------------|---------------|---------------|-------------|-------------|---------------|---------------|--------------|-------------|
|                   | A                             | B             | C             | D           | E           | X             | Y             | Z            | t*          |
| BEPC13-1110CPHFR  | 10.23<br>.403                 | 6.93<br>.273  | 6.88<br>.271  | 0.9<br>.035 | 2.5<br>.098 | 13.2<br>.520  | 13.2<br>.520  | 7.5<br>.295  | 0.5<br>.020 |
| BEPC17-1110CPHFR  | 14.07<br>.554                 | 9.88<br>.389  | 9.55<br>.376  | 2.5<br>.098 | 4.5<br>.177 | 17.2<br>.677  | 17.5<br>.689  | 11.9<br>.469 | 0.9<br>.035 |
| BEPC19-1111CPHFR  | 15.58<br>.613                 | 10.68<br>.420 | 12.04<br>.474 | 2.5<br>.098 | 4.5<br>.177 | 18.7<br>.736  | 19.0<br>.748  | 11.9<br>.469 | 0.9<br>.035 |
| BEPC25-1111CPHFR  | 20.39<br>.803                 | 13.73<br>.541 | 14.7<br>.579  | 3.0<br>.118 | 4.5<br>.177 | 25.0<br>.984  | 25.0<br>.984  | 16.0<br>.630 | 0.9<br>.035 |
| BEPC27-1111CPHFR  | 21.33<br>.840                 | 15.33<br>.604 | 20.7<br>.815  | 3.0<br>.118 | 4.5<br>.177 | 27.0<br>1.063 | 32.0<br>1.260 | 16.0<br>.630 | 0.8<br>.031 |
| BEPC27N-1114CPHFR | 20.5<br>.807                  | 15.9<br>.623  | 14.1<br>.555  | 0.3<br>.012 | 3.5<br>.138 | 28.2<br>1.110 | 29.8<br>1.173 | 8.7<br>.343  | 0.9<br>.035 |
| BEPC30-1112CPHFR  | 23.33<br>.919                 | 17.33<br>.682 | 22.7<br>.894  | 3.0<br>.118 | 4.5<br>.177 | 30.0<br>1.181 | 35.0<br>1.378 | 16.0<br>.630 | 0.9<br>.035 |

| Part No.          | Dimensions in mm |            |            |            |                  |                      | Parameter                |             | Wt<br>(g) | Connecting<br>pin pattern |
|-------------------|------------------|------------|------------|------------|------------------|----------------------|--------------------------|-------------|-----------|---------------------------|
|                   | øP<br>(mm)       | P1<br>(mm) | P2<br>(mm) | P3<br>(mm) | Terminal<br>pins | w<br>D (mm)<br>H     | Aw<br>(mm <sup>2</sup> ) | ℓ w<br>(mm) |           |                           |
| BEPC13-1110CPHFR  | ø0.49            | 2.5        | —          | 10.5       | 10               | 13.9<br>14.8<br>7.7  | 11.2                     | 23.0        | 0.57      | Type 4                    |
| BEPC17-1110CPHFR  | ø0.49            | 3.75       | 2.5        | 15.0       | 10               | 18.2<br>19.1<br>12.1 | 20.1                     | 32.1        | 1.5       | Type 1                    |
| BEPC19-1111CPHFR  | ø0.49            | 3.75       | 2.5        | 16.25      | 11               | 20.0<br>21.5<br>12.1 | 29.3                     | 34.4        | 1.6       | Type 2                    |
| BEPC25-1111CPHFR  | 0.8              | 5.0        | 3.75       | 20.0       | 11               | 26.1<br>27.0<br>16.2 | 54.4                     | 45.0        | 3.9       | Type 2                    |
| BEPC27-1111CPHFR  | 0.8              | 5.0        | 3.75       | 27.5       | 11               | 28.1<br>34.0<br>16.2 | 62.1                     | 47.2        | 4.7       | Type 2                    |
| BEPC27N-1114CPHFR | 0.8              | 3.75       | —          | 25.0       | 14               | 29.0<br>36.5<br>9.0  | 32.4                     | 43.7        | 3.1       | Type 3                    |
| BEPC30-1112CPHFR  | 1.0              | 5.1        | —          | 30.0       | 12               | 31.1<br>37.0<br>16.2 | 68.1                     | 51.1        | 6.0       | Type 3                    |

UL Grade: 94V-0, Material: FR phenol, Pin material: Steel wire (Solder plated), Phosphor bronze (Solder plated) for BEPC25B-1111GAFR only.  
Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

\* Minimum thickness of bobbin inside which core is placed, including flanges.

Effective April 1, 2011, MH&W will import Bobbins and Accessories  
Manufactured from the Original TDK Tooling

### SMD type

| Part No.         | Dimensions in |              | mm<br>inches |   |   |              |               |              |              |
|------------------|---------------|--------------|--------------|---|---|--------------|---------------|--------------|--------------|
|                  | A             | B            | C            | D | E | X            | Y             | Z            | t*           |
| BEPC10-118GAFR   | 7.5<br>.295   | 5.95<br>.234 | 3.9<br>.154  | — | — | 10.8<br>.425 | 11.5<br>.453  | 4.85<br>.193 | 0.35<br>.014 |
| BEPC13-1110GAFR  | 10.3<br>.406  | 6.93<br>.273 | 6.9<br>.272  | — | — | 14.0<br>.551 | 20.4<br>.803  | 7.02<br>.276 | 0.5<br>.020  |
| BEPC17-119GAFR   | 14.1<br>.555  | 9.9<br>.390  | 9.6<br>.378  | — | — | 17.5<br>.689 | 23.0<br>.906  | 9.8<br>.386  | 0.8<br>.031  |
| BEPC19-1110GAFR  | 15.4<br>.606  | 10.7<br>.421 | 12.0<br>.472 | — | — | 20.0<br>.787 | 25.0<br>.984  | 9.75<br>.384 | 0.8<br>.031  |
| BEPC25B-1111GAFR | 20.1<br>.791  | 15.7<br>.618 | 14.7<br>.579 | — | — | 25.0<br>.984 | 28.7<br>1.130 | 9.8<br>.386  | 0.8<br>.031  |

| Part No.         | Dimensions in mm |            |            |            |                  |                     | Parameter                |             | Wt<br>(g) | Connecting<br>pin pattern |
|------------------|------------------|------------|------------|------------|------------------|---------------------|--------------------------|-------------|-----------|---------------------------|
|                  | Pt×Pw<br>(mm)    | P1<br>(mm) | P2<br>(mm) | P3<br>(mm) | Terminal<br>pins | W<br>D (mm)<br>H    | Aw<br>(mm <sup>2</sup> ) | ℓ w<br>(mm) |           |                           |
| BEPC10-118GAFR   | 0.3×0.5          | 2.0        | —          | 10.8       | 8                | 11.0<br>11.7<br>5.2 | 3.2                      | 17.5        | 0.14      | Type 6                    |
| BEPC13-1110GAFR  | 0.4×0.7          | 3.0        | —          | 18.5       | 10               | 14.2<br>20.6<br>7.3 | 11.6                     | 23.1        | 0.6       | Type 7                    |
| BEPC17-119GAFR   | 0.4×0.7          | 5.0        | 3.5        | 21.8       | 9                | 18.2<br>23.2<br>9.9 | 20.1                     | 32.1        | 1.1       | Type 8                    |
| BEPC19-1110GAFR  | 0.4×0.7          | 5.0        | 3.5        | 23.8       | 10               | 20.2<br>25.2<br>9.9 | 28.2                     | 34.4        | 1.3       | Type 9                    |
| BEPC25B-1111GAFR | 0.4×0.8          | 5.0        | 3.5        | 27.5       | 11               | 26.1<br>28.9<br>9.9 | 32.3                     | 44.3        | 1.9       | Type 10                   |

UL Grade: 94V-0, Material: FR phenol, Pin material: Steel wire (Solder plated), Phosphor bronze (Solder plated) for BEPC25B-1111GAFR only.  
Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

\* Minimum thickness of bobbin inside which core is placed, including flanges.

### Drop in type

| Part No.        | Dimensions in |              | mm<br>inches |              |   |              |               |              |             |
|-----------------|---------------|--------------|--------------|--------------|---|--------------|---------------|--------------|-------------|
|                 | A             | B            | C            | D            | E | X            | Y             | Z            | t*          |
| BEPC19-1110SAFR | 15.6<br>.611  | 10.7<br>.413 | 12.0<br>.480 | 18.6<br>.835 | — | 20.0<br>.768 | 26.0<br>1.228 | 9.55<br>.337 | 0.8<br>.031 |
| BEPC25B-1111SFR | 20.1<br>.791  | 15.7<br>.618 | 14.7<br>.579 | 21.7<br>.854 | — | 25.0<br>.984 | 37.7<br>1.484 | 9.60<br>.378 | 0.8<br>.031 |

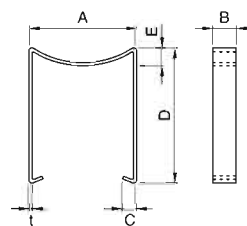
| Part No.        | Dimensions in mm |            |            |            |                  |                     | Parameter                |             | Wt<br>(g) | Connecting<br>pin pattern |
|-----------------|------------------|------------|------------|------------|------------------|---------------------|--------------------------|-------------|-----------|---------------------------|
|                 | Pt×Pw<br>(mm)    | P1<br>(mm) | P2<br>(mm) | P3<br>(mm) | Terminal<br>pins | W<br>D (mm)<br>H    | Aw<br>(mm <sup>2</sup> ) | ℓ w<br>(mm) |           |                           |
| BEPC19-1110SAFR | 0.4×0.7          | 5.0        | 3.5        | 22.3       | 10               | 20.2<br>26.2<br>9.8 | 28.2                     | 34.4        | 1.3       | Type 9                    |
| BEPC25B-1111SFR | 0.4×0.7          | 5.0        | 3.5        | 29.7       | 11               | 26.0<br>37.9<br>9.5 | 30.9                     | 50.5        | 2.1       | Type 10                   |

UL Grade: 94V-0, Material: FR phenol, Pin material: Steel wire (Solder plated), Phosphor bronze (Solder plated) for BEPC25B-1111GAFR only.  
Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

\* Minimum thickness of bobbin inside which core is placed, including flanges.

Effective April 1, 2011, MH&W will import Bobbins and Accessories  
Manufactured from the Original TDK Tooling

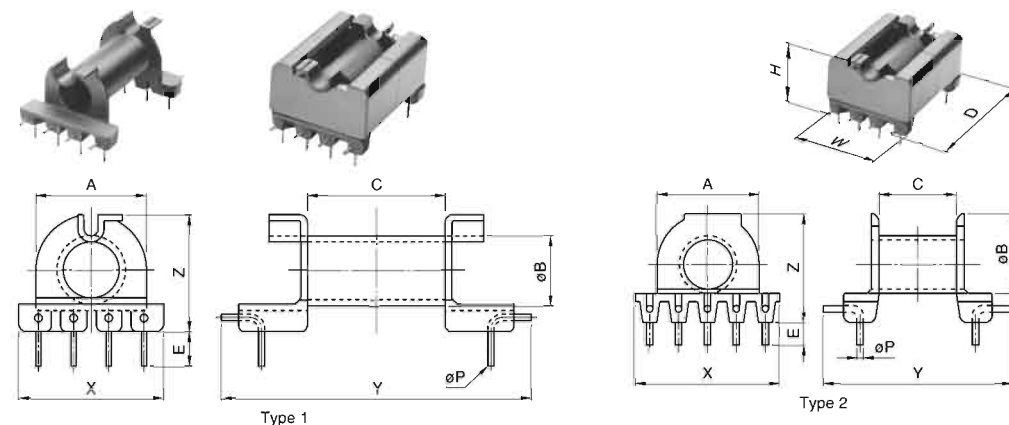
| Part No.   | Dimensions in |             | C           | D             | E            | t            | Material        |
|------------|---------------|-------------|-------------|---------------|--------------|--------------|-----------------|
|            | A             | B           |             |               |              |              |                 |
| FEPC-10-A  | 10.8<br>.425  | 2.8<br>.110 | 1.5<br>.059 | 8.0<br>.315   | 0.8<br>.031  | 0.2<br>.008  | Stainless steel |
| FEPC-13-A  | 13.7<br>.541  | 2.8<br>.110 | 2.9<br>.114 | 14.75<br>.581 | 2.65<br>.104 | 0.25<br>.010 | Stainless steel |
| FEPC-17-A  | 18.1<br>.713  | 3.8<br>.150 | 2.9<br>.114 | 19.1<br>.752  | 3.0<br>.118  | 0.3<br>.012  | Stainless steel |
| FEPC-19-A  | 19.9<br>.783  | 3.8<br>.150 | 2.9<br>.114 | 21.5<br>.846  | 3.0<br>.118  | 0.3<br>.012  | Stainless steel |
| FEPC-25-A  | 26.0<br>1.024 | 5.6<br>.220 | 2.9<br>.114 | 27.0<br>1.063 | 3.0<br>.118  | 0.3<br>.012  | Stainless steel |
| FEPC-25B-A | 26.0<br>1.024 | 5.0<br>.197 | 2.9<br>.114 | 24.5<br>.965  | 3.0<br>.118  | 0.3<br>.012  | Stainless steel |
| FEPC-27-A  | 28.0<br>1.102 | 5.6<br>.220 | 2.9<br>.114 | 34.0<br>1.339 | 3.0<br>.118  | 0.3<br>.012  | Stainless steel |
| FEPC-30-A  | 31.0<br>1.220 | 5.6<br>.220 | 2.9<br>.114 | 37.0<br>1.457 | 3.0<br>.118  | 0.3<br>.012  | Stainless steel |



Effective April 1, 2011, MH&W will import Bobbins and Accessories Manufactured from the Original TDK Tooling

# MH&W Internatinal Corporation

## Bobbins For Low Profile Cores



| Part No.            | Type | Dimensions in |               | C            | E           | X            | Y             | Z            | t**          |
|---------------------|------|---------------|---------------|--------------|-------------|--------------|---------------|--------------|--------------|
|                     |      | mm            | inches        |              |             |              |               |              |              |
| BLP23/8-018CPLFR    | 1    | 12.0<br>.472  | 7.7<br>.303   | 15.2<br>.598 | 4.0<br>.157 | 16.5<br>.650 | 34.0<br>1.358 | 12.5<br>.492 | 0.75<br>.030 |
| BLP22/13-018CPLFR   | 1    | 17.6<br>.693  | 10.7<br>.421  | 14.1<br>.555 | 4.0<br>.157 | 25.0<br>.984 | 31.5<br>1.240 | 17.6<br>.693 | 0.75<br>.030 |
| BLP22/13-1110CPLFR* | 2    | 17.6<br>.693  | 10.78<br>.424 | 13.4<br>.528 | 4.0<br>.157 | 25.0<br>.984 | 32.3<br>1.272 | 19.1<br>.752 | 0.8<br>.031  |
| BLP32/13-018CPLFR   | 1    | 17.6<br>.693  | 10.7<br>.421  | 21.8<br>.858 | 4.0<br>.157 | 25.0<br>.984 | 40.6<br>1.598 | 17.6<br>.693 | 0.75<br>.030 |
| BLP32/13-1110CPLFR* | 2    | 17.6<br>.693  | 10.78<br>.424 | 21.1<br>.835 | 4.0<br>.157 | 25.0<br>.984 | 40.6<br>1.598 | 19.1<br>.752 | 0.8<br>.031  |

| Part No.            | Dimensions in mm |               |                      | Parameter |          | Wt (g) | Material  | Clamp item |
|---------------------|------------------|---------------|----------------------|-----------|----------|--------|-----------|------------|
|                     | ØP (mm)          | Terminal pins | W D (mm) H           | Aw (mm²)  | Ø w (mm) |        |           |            |
| BLP23/8-018CPLFR    | 0.6              | 8             | 17.2<br>34.2<br>12.5 | 31.9      | 30.9     | 1.9    | PPS       | FLP23/8-A  |
| BLP22/13-018CPLFR   | 0.8              | 8             | 27<br>32<br>17.8     | 51.5      | 45.8     | 3.2    | PPS       | FLP22/13-A |
| BLP22/13-1110CPLFR* | 0.8              | 10            | 25.9<br>32.3<br>19.2 | 45.7      | 44.5     | 3.1    | FR Phenol | FLP22/13-A |
| BLP32/13-018CPLFR   | 0.8              | 8             | 27<br>41<br>17.8     | 79.6      | 45.8     | 3.7    | PPS       | FLP32/13-A |
| BLP32/13-1110CPLFR* | 0.8              | 10            | 25.9<br>40.6<br>19.2 | 72.0      | 44.5     | 3.7    | FR Phenol | FLP32/13-A |

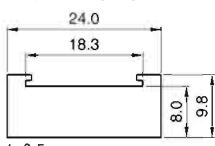
UL Grade: 94V-0, Pin material: Phosphor bronze wire/Steel wire for "-1110-CPLFR" (Solder plated), Insulating divider's material: NOMEX®  
Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

\* Include 2 pieces of insulating dividers.

Insulating divider for BLP22/13-1110CPLFR  
Part No.: ILP22/13



Insulating divider for BLP32/13-1110CPLFR  
Part No.: ILP32/13

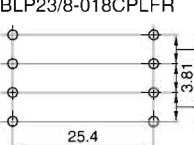
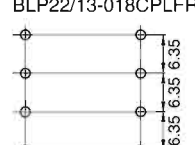
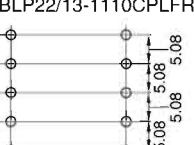
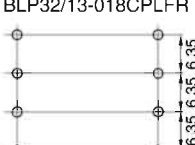
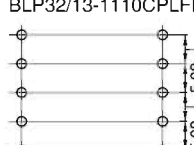


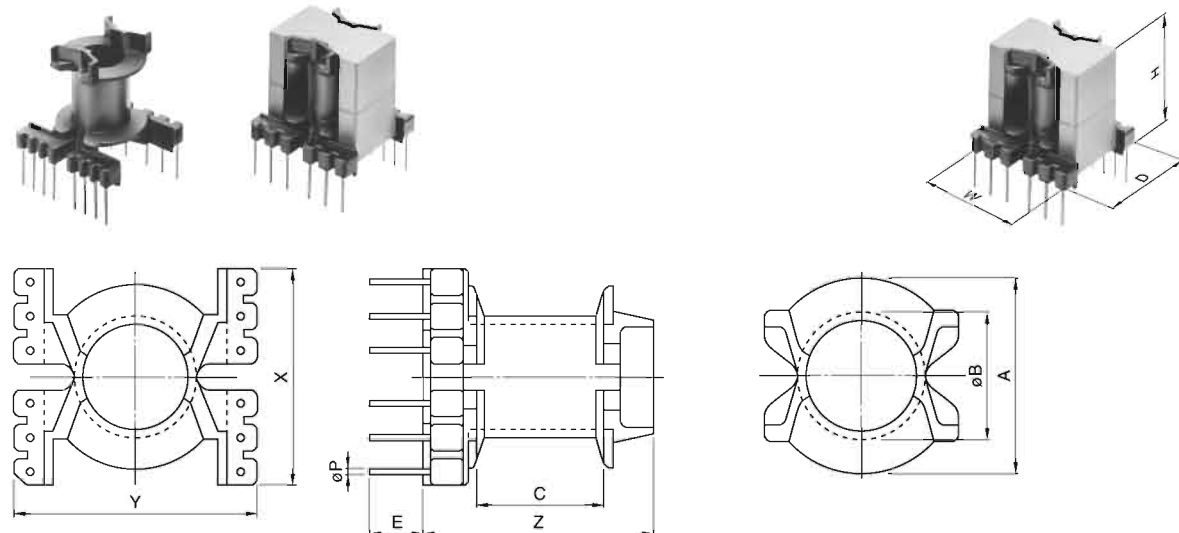
Dimensions in mm



\*\* Minimum thickness of bobbin inside which core is placed, including flanges.

### PIN LAYOUT

|                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                      |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| BLP23/8-018CPLFR                                                                   | BLP22/13-018CPLFR                                                                   | BLP22/13-1110CPLFR                                                                  | BLP32/13-018CPLFR                                                                   | BLP32/13-1110CPLFR                                                                   |
|  |  |  |  |  |
| Dimensions in mm                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                      |



| Part No.          | Dimensions in mm<br>inches |               |               |              |               |               |               |             |
|-------------------|----------------------------|---------------|---------------|--------------|---------------|---------------|---------------|-------------|
|                   | A                          | øB            | C             | E            | X             | Y             | Z             | t           |
| BPQ20/16-1114CPFR | 17.2<br>.677               | 10.95<br>.431 | 8.0<br>.315   | 6.5<br>.256  | 23.0<br>.906  | 23.0<br>.906  | 18.3<br>.720  | 0.8<br>.031 |
| BPQ20/20-1114CPFR | 17.2<br>.677               | 10.95<br>.431 | 12.0<br>.472  | 6.5<br>.256  | 23.0<br>.906  | 23.0<br>.906  | 21.3<br>.839  | 0.8<br>.031 |
| BPQ26/20-1112CPFR | 21.6<br>.850               | 14.3<br>.563  | 9.2<br>.362   | 6.5<br>.256  | 26.5<br>1.043 | 29.3<br>1.154 | 21.5<br>.846  | 0.8<br>.031 |
| BPQ26/25-1112CPFR | 21.6<br>.850               | 14.3<br>.563  | 13.8<br>.543  | 3.5<br>.138  | 26.5<br>1.043 | 29.3<br>1.154 | 25.1<br>.988  | 0.8<br>.031 |
| BPQ32/20-1112CPFR | 26.6<br>1.047              | 16.0<br>.630  | 8.98<br>.354  | 7.0<br>.276  | 32.0<br>1.260 | 34.0<br>1.339 | 22.48<br>.885 | 0.9<br>.035 |
| BPQ32/30-1112CPFR | 26.6<br>1.047              | 16.0<br>.630  | 18.6<br>.732  | 7.0<br>.276  | 32.0<br>1.260 | 34.0<br>1.339 | 32.1<br>1.264 | 0.9<br>.035 |
| BPQ35/35-1112CPFR | 31.1<br>1.224              | 16.9<br>.665  | 22.50<br>.886 | 7.5<br>.295  | 35.0<br>1.378 | 39.0<br>1.535 | 37.4<br>1.472 | 0.9<br>.035 |
| BPQ40/40-1112CPFR | 36.0<br>1.417              | 17.5<br>.689  | 26.8<br>1.055 | 6.5<br>.256  | 40.0<br>1.575 | 42.0<br>1.654 | 44.8<br>1.764 | 0.9<br>.035 |
| BPQ50/50-1112CPFR | 42.9<br>1.689              | 23.2<br>.913  | 30.4<br>1.197 | 10.0<br>.394 | 51.0<br>2.008 | 51.0<br>2.008 | 52.0<br>2.047 | 1.0<br>.039 |

| Part No.          | Dimensions in mm |                  |                      | Parameter   |             | Wt<br>(g) | Accessory item |
|-------------------|------------------|------------------|----------------------|-------------|-------------|-----------|----------------|
|                   | øP<br>(mm)       | Terminal<br>pins | W<br>D (mm)<br>H     | Aw<br>(mm²) | ℓ w<br>(mm) |           |                |
| BPQ20/16-1114CPFR | 0.6              | 14               | 23.0<br>23.0<br>18.3 | 23.4        | 44          | 2.7       | FPQ20/16-A     |
| BPQ20/20-1114CPFR | 0.6              | 14               | 23.0<br>23.0<br>22.3 | 36.2        | 44          | 2.8       | FPQ20/20-A     |
| BPQ26/20-1112CPFR | 0.8              | 12               | 26.5<br>26.5<br>21.5 | 30.7        | 56.2        | 4.3       | FPQ26/20-A     |
| BPQ26/25-1112CPFR | 0.8              | 12               | 26.5<br>26.5<br>29.1 | 47.7        | 56.2        | 4.9       | FPQ26/25-A     |
| BPQ32/20-1112CPFR | 1.0              | 12               | 32.0<br>34.0<br>22.5 | 42.9        | 67.1        | 6.6       | FPQ32/20-A     |
| BPQ32/30-1112CPFR | 1.0              | 12               | 32.0<br>34.0<br>32.1 | 95.3        | 67.1        | 7.4       | FPQ32/30-A     |
| BPQ35/35-1112CPFR | 1.0              | 12               | 35.0<br>39.0<br>37.4 | 154.2       | 75.2        | 11        | FPQ35/35-A     |
| BPQ40/40-1112CPFR | 1.0              | 12               | 40.0<br>42.0<br>44.8 | 240.0       | 83.9        | 14        | FPQ40/40-A     |
| BPQ50/50-1112CPFR | 1.2              | 12               | 51.0<br>51.0<br>52.0 | 313.0       | 104         | 22        | FPQ50/50-B     |

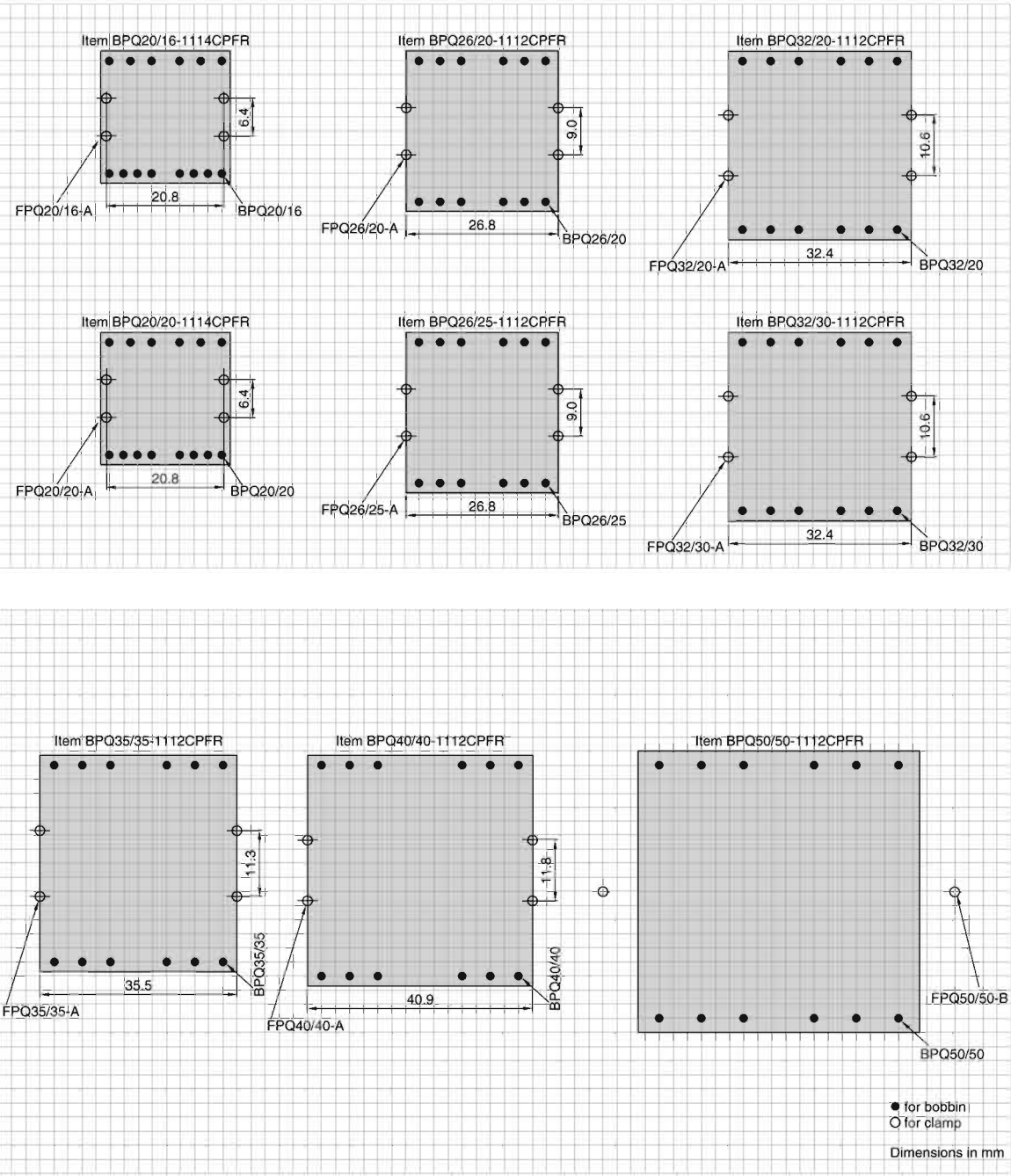
UL Grade: 94V-0, Material: FR phenol, Pin material: Steel wire (Solder plated)

Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

\* Minimum thickness of bobbin inside which core is placed, including flanges.

Effective April 1, 2011, MH&W will import Bobbins and Accessories  
Manufactured from the Original TDK Tooling

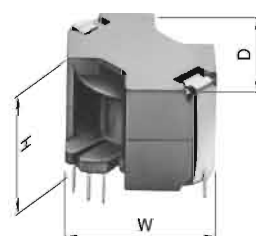
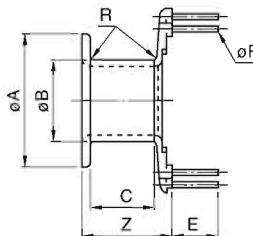
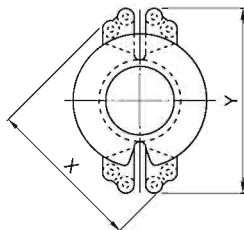
Connecting Pin Patterns (2.54mm/0.1 inch grids) View in mounting direction



• All specifications are subject to change without notice.

# MH&W International Corporation

## RM Bobbins



| Part No.       | Dimensions in  |               |               |              |                |                |               |               |
|----------------|----------------|---------------|---------------|--------------|----------------|----------------|---------------|---------------|
|                | mm             | inches        |               |              |                |                |               |               |
|                | øA             | øB            | C             | E            | X              | Y              | Z             | t*            |
| BRM4-716SDFR   | 7.75<br>.305   | 4.85<br>.191  | 5.55<br>.219  | 4.40<br>.207 | 9.52<br>.375   | 4.3<br>.169    | 7.55<br>.297  | 0.25<br>.010  |
| BRM5-716CPFR   | 10.00<br>.394  | 5.90<br>.232  | 4.88<br>.192  | 5.00<br>.197 | 12.5<br>.492   | 16.2<br>.638   | 7.9<br>.311   | 0.35<br>.014  |
| BRM6-716CPFR   | 12.20<br>.480  | 7.35<br>.289  | 6.35<br>.250  | 4.50<br>.177 | 15.0<br>.591   | 20.0<br>.787   | 9.6<br>.378   | 0.3<br>.012   |
| BRM8-718CPFR   | 16.80<br>.661  | 9.85<br>.388  | 9.05<br>.356  | 5.60<br>.220 | 20.24<br>.797  | 24.6<br>.967   | 12.7<br>.500  | 0.425<br>.017 |
| BRM10-7112SDFR | 20.90<br>.823  | 12.40<br>.488 | 10.60<br>.417 | 4.78<br>.188 | 22.5<br>.886   | 27.75<br>1.093 | 13.40<br>.528 | 0.5<br>.020   |
| BRM12-7112CPFR | 24.60<br>.969  | 14.40<br>.567 | 14.70<br>.579 | 6.35<br>.250 | 30.0<br>1.181  | 38.00<br>1.496 | 18.9<br>.744  | 0.55<br>.022  |
| BRM14-7112CPFR | 28.70<br>1.130 | 16.70<br>.657 | 18.55<br>.730 | 6.35<br>.250 | 35.56<br>1.400 | 41.90<br>1.650 | 22.9<br>.902  | 0.6<br>.024   |

| Part No.       | Dimensions in mm |                  |                      | Parameter                |             | Wt<br>(g) | Other bobbins'<br>item |
|----------------|------------------|------------------|----------------------|--------------------------|-------------|-----------|------------------------|
|                | øP<br>(mm)       | Terminal<br>pins | W<br>D (mm)<br>H     | Aw<br>(mm <sup>2</sup> ) | l w<br>(mm) |           |                        |
| BRM4-716SDFR   | ø0.45            | 6                | 10.0<br>10.0<br>10.5 | 8.05                     | 19.8        | 0.23      | BRM4-714SDFR           |
| BRM5-716CPFR   | 0.50             | 6                | 12.5<br>12.5<br>10.5 | 10.1                     | 25          | 0.26      | BRM5-714CPFR           |
| BRM6-716CPFR   | 0.60             | 6                | 15.0<br>15.0<br>12.5 | 15.5                     | 31          | 0.43      | BRM6-714CPFR           |
| BRM8-718CPFR   | 0.60             | 8                | 20.0<br>20.0<br>16.5 | 31.0                     | 42          | 1.00      | BRM8-7112CPFR          |
| BRM10-7112SDFR | ø0.51            | 12               | 24.7<br>24.7<br>18.7 | 45.7                     | 53          | 1.6       | BRM10-7110SDNFR        |
| BRM12-7112CPFR | 0.80             | 12               | 30.0<br>30.0<br>23.6 | 75.5                     | 55          | 2.7       | BRM12-7111CPFR         |
| BRM14-7112CPFR | 0.80             | 12               | 35.6<br>35.6<br>29.0 | 113                      | 72          | 3.8       | BRM14-7110CPFR         |

UL Grade: 94V-0, Material: FR phenol

Pin material: CPFR type is steel wire (solder plated)

SDFR and SDNFR types are phosphor bronze wire (solder plated)

Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

\* Minimum thickness of bobbin inside which core is placed, including flanges.

Effective April 1, 2011, MH&W will import Bobbins and Accessories  
Manufactured from the Original TDK Tooling

# Connecting Pin Patterns (2.54mm/0.1 inch grids) View in mounting direction

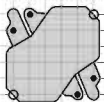
BRM4-714SDFR



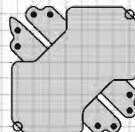
BRM5-714CPFR



BRM6-714CPFR



BRM8-718CPFR



BRM4-716SDFR



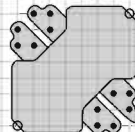
BRM5-716CPFR



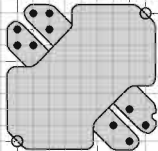
BRM6-716CPFR



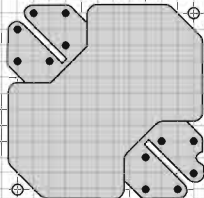
BRM8-7112CPFR



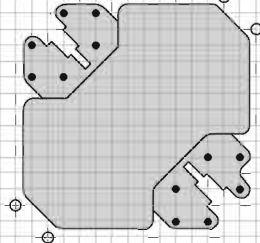
BRM10-7110SDNFR



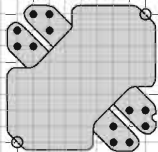
BRM12-7112CPFR



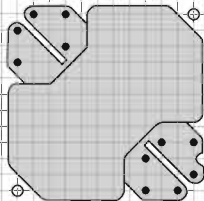
BRM14-7112CPFR



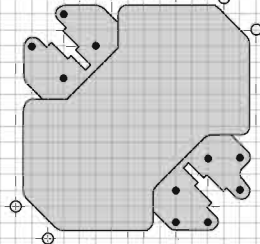
BRM10-7112SDFR



BRM12-7111CPFR



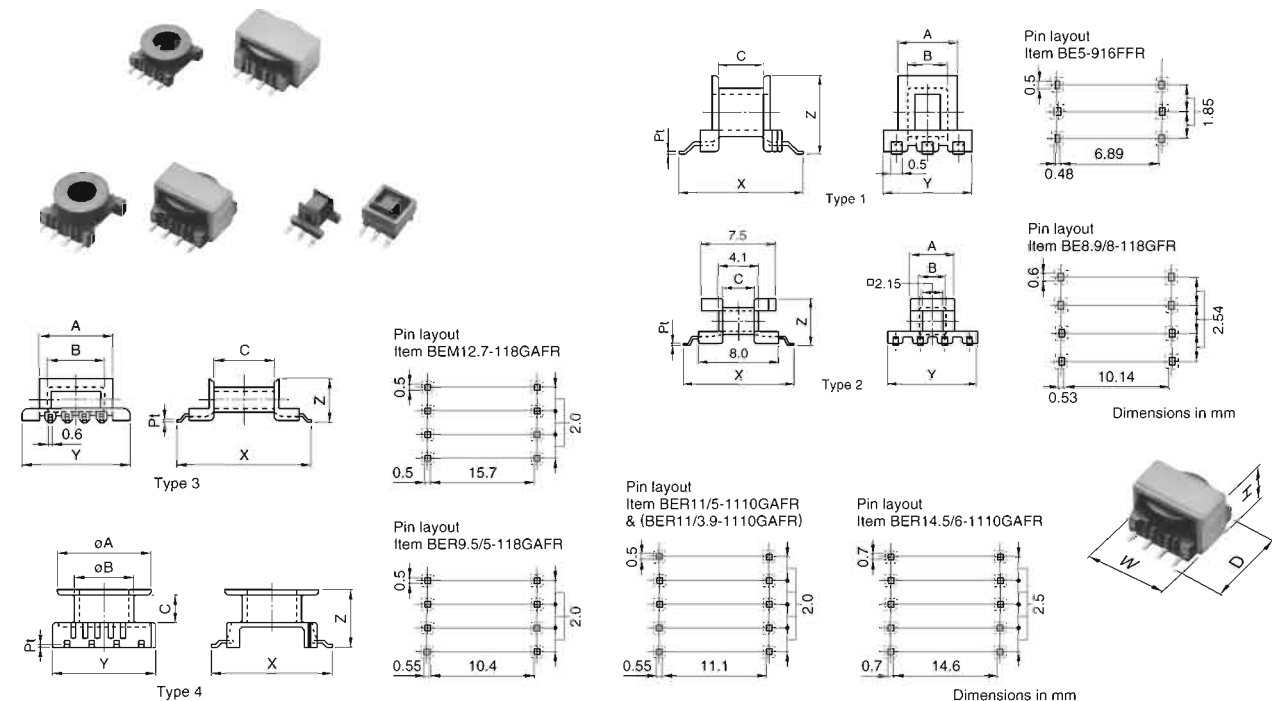
BRM14-7110CPFR



● for bobbin  
○ for clip

# MH&W Internatinal Cororations

## ER and EEM Bobbins



| Part No.                  | Type | Dimensions in mm |              | C            | X             | Y             | Z            | t*            |
|---------------------------|------|------------------|--------------|--------------|---------------|---------------|--------------|---------------|
|                           |      | A                | B            |              |               |               |              |               |
| BE5-916FFR<br>BE5-926F1FR | 1    | 3.50<br>.138     | 2.30<br>.091 | 2.70<br>.106 | 7.85<br>.309  | 5.20<br>.205  | 4.70<br>.185 | 0.35<br>.014  |
| BE8.9/8-118GFR            | 2    | 4.50<br>.177     | 2.70<br>.106 | 3.10<br>.122 | 11.20<br>.441 | 9.20<br>.362  | 4.78<br>.188 | 0.225<br>.009 |
| BEM12.7-118GAFR           | 3    | 8.90<br>.350     | 6.90<br>.272 | 7.50<br>.295 | 16.70<br>.657 | 12.80<br>.504 | 4.90<br>.193 | 0.30<br>.012  |
| BER9.5/5-118GAFR          | 4    | 7.30<br>.287     | 4.45<br>.175 | 2.15<br>.085 | 11.50<br>.453 | 8.2<br>.323   | 4.45<br>.175 | 0.35<br>.014  |
| BER11/3.9-1110GAFR        | 4    | 8.50<br>.335     | 5.20<br>.205 | 1.05<br>.041 | 12.45<br>.490 | 10.50<br>.413 | 3.55<br>.140 | 0.35<br>.014  |
| BER11/5-1110GAFR          | 4    | 8.50<br>.335     | 5.20<br>.205 | 1.95<br>.077 | 12.20<br>.480 | 10.50<br>.413 | 4.70<br>.185 | 0.35<br>.014  |
| BER14.5/6-1110GAFR        | 4    | 11.40<br>.449    | 5.90<br>.232 | 2.00<br>.079 | 16.00<br>.630 | 14.00<br>.551 | 5.85<br>.230 | 0.30<br>.012  |

| Part No.                  | Dimensions in mm |               |                     | Parameter |          | Material          | Wt (g)       | Accessory item |
|---------------------------|------------------|---------------|---------------------|-----------|----------|-------------------|--------------|----------------|
|                           | Pt×Pw (mm)       | Terminal pins | W D (mm) H          | Aw (mm²)  | Ø w (mm) |                   |              |                |
| BE5-916FFR<br>BE5-926F1FR | 0.2×0.5          | 6             | 5.7<br>11.3<br>4.8  | 1.62      | 12.4     | Diallyl Phthalate | 0.03<br>0.07 | FE-5-A         |
| BE8.9/8-118GFR            | 0.2×0.6          | 8             | 9.3<br>18.6<br>4.8  | 2.79      | 14.4     | FR Phenol         | 0.17         | —              |
| BEM12.7-118GAFR           | 0.3×0.5          | 8             | 13.6<br>27.2<br>5.0 | 7.5       | 22.4     | FR Phenol         | 0.31         | FEM12.7/13.7-A |
| BER9.5/5-118GAFR          | 0.3×0.5          | 8             | 9.9<br>19.8<br>5.9  | 3.06      | 18.5     | FR Phenol         | 0.16         | FER9.5/5-A     |
| BER11/3.9-1110GAFR        | 0.3×0.5          | 10            | 11.0<br>22.0<br>4.7 | 1.73      | 21.5     | FR Phenol         | 0.21         | FER11/3.9-A    |
| BER11/5-1110GAFR          | 0.3×0.5          | 10            | 11.5<br>23.0<br>6.4 | 3.22      | 21.5     | FR Phenol         | 0.21         | FER11/5-A      |
| BER14.5/6-1110GAFR        | 0.4×0.7          | 10            | 15.1<br>30.2<br>7.3 | 5.5       | 27.2     | FR Phenol         | 0.55         | FER14.5/6-A    |

UL Grade: 94V-0, Material of pins: F, G types are Phosphor bronze wire (Solder plated), GA type is Steel wire (Solder plated).

Maximum number of turns N that can be wound on bobbins, see section of "Maximum number of Turns on Bobbins".

\* Minimum thickness of bobbin.

\*\* 8-pin is available (Part No. BER11/5-118GAFR).

Effective April 1, 2011, MH&W will import Bobbins and Accessories Manufactured from the Original TDK Tooling

## List Of Bobbin and Pin Materials

| TDK P/N            | Material Vendor   | Bobbin Material | UL file # | Pin Material    | Pin Plating  |
|--------------------|-------------------|-----------------|-----------|-----------------|--------------|
| BE05-916FFR        | Sumitomo Bakelite | AM-113          | E41429    | Phospher Bronz  | CuSn (~2%Cu) |
| BE05-926F1FR       | Sumitomo Bakelite | AM-113          | E41429    | Phospher Bronz  | CuSn (~2%Cu) |
| BE08.9/8-118GFR    | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE08-116CPHFR      | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE10-118CPSFR      | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE12.5-1110CPFR    | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE12.5-1110CPLFR   | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE13-1110CPSFR     | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE16-1110CPNFR     | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE16-116CPFR       | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE16-118CPHFR      | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE19-116CPFR       | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE19-118CPHFR      | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE22/19/6-118CPFR  | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE22-1110CPFR      | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE22-118CPFR       | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE25-118CPFR       | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE28-1110CPFR      | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE28-1110CPLFR     | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE30-1110CPFR      | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE30-1112CPFR      | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE33-1112CPLFR     | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE35-1112CPLFR     | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE40-1112CPFR      | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE40-1112CPNFR     | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE50-1112CPFR      | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BE60-1112CPFR      | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEER25.5-118CPFR   | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEER28-1110CPFR    | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEER28-1110CPSFR   | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEER28-1112CPHFR   | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEER28L-1110CPFR   | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEER28L-1112CPHFR  | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEER35-1112CPFR    | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEER35-1116CPHFR   | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEER40-1112CPFR    | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEER40-1116CPHFR   | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEER42/20-1112CPFR | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEER42-1114CPFR    | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEER42-1116CPHFR   | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEER49-1118CPFR    | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEM12.7-118GAFR    | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEP07-316DFR       | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEP07-326SDFR      | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEP10-318DFR       | Sumitomo Bakelite | PM-9630         | E41429    | Phospher Bronze | CuSn (~2%Cu) |

## List Of Bobbin and Pin Materials

| TDK P/N            | Material Vendor   | Bobbin Material | UL file # | Pin Material    | Pin Plating  |
|--------------------|-------------------|-----------------|-----------|-----------------|--------------|
| BEP13-3110DFR      | Sumitomo Bakelite | PM-9630         | E41429    | Phospher Bronze | CuSn (~2%Cu) |
| BEP13-316DFR       | Sumitomo Bakelite | PM-9630         | E41429    | Phospher Bronze | CuSn (~2%Cu) |
| BEP17-3114DFR      | Sumitomo Bakelite | PM-9630         | E41429    | Phospher Bronze | CuSn (~2%Cu) |
| BEP17-318DFR       | Sumitomo Bakelite | PM-9630         | E41429    | Phospher Bronze | CuSn (~2%Cu) |
| BEP17-328DFR       | Sumitomo Bakelite | PM-9630         | E41429    | Phospher Bronze | CuSn (~2%Cu) |
| BEP20-8110DFR      | Sumitomo Bakelite | PM-9630         | E41429    | Phospher Bronze | CuSn (~2%Cu) |
| BEP20-8210DFR      | Sumitomo Bakelite | PM-9630         | E41429    | Phospher Bronze | CuSn (~2%Cu) |
| BEPC10-118GAFR     | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEPC13-1110CPHFR   | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEPC13-1110GAFR    | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEPC17-119GAFR     | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEPC19-1110GAFR    | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEPC19-1111CPHFR   | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEPC25-1111CPHFR   | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEPC25B-1111GAFR   | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEPC27-1111CPHFR   | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BEPC27N-1114CPHFR  | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BER09.5/5-118GAFR  | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BER11/3.9-1110GAFR | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BER11/5-1110GAFR   | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BER11/5-1110SAFR   | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BER11/5-118GAFR    | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BER14.5/6-1110GAFR | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BER14.5/6-1110SAFR | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BES16-1110CPSFR    | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BLP22/13-018CPLFR  | Toray Industries  | AR04            | E41797    | Steel Wire      | CuSn (~2%Cu) |
| BLP22/13-018PSFR   | Toray Industries  | AR04            | E41797    | Phospher Bronz  | CuSn (~2%Cu) |
| BLP22/13-018PSSFR  | Toray Industries  | AR04            | E41797    | Phospher Bronz  | CuSn (~2%Cu) |
| BLP22/13-1110CPLFR | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BLP23/8-018CPLFR   | Toray Industries  | AR04            | E41797    | Steel Wire      | CuSn (~2%Cu) |
| BLP23/8-018PFR     | Toray Industries  | AR04            | E41797    | Phospher Bronz  | CuSn (~2%Cu) |
| BLP32/13-018CPLFR  | Toray Industries  | AR04            | E41797    | Steel Wire      | CuSn (~2%Cu) |
| BLP32/13-018PSFR   | Toray Industries  | AR04            | E41797    | Phospher Bronz  | CuSn (~2%Cu) |
| BLP32/13-018PSSFR  | Toray Industries  | AR04            | E41797    | Phospher Bronz  | CuSn (~2%Cu) |
| BLP32/13-1110CPLFR | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire      | CuSn (~2%Cu) |
| BP05.8/3.3-612     | E I Dupont        | 500             | E66288    | N/A             |              |
| BP07/4-612         | E I Dupont        | 500             | E66288    | N/A             |              |
| BP09/4-012         | Toray Industries  | AR04            | E41797    | N/A             |              |
| BP09/5-612         | E I Dupont        | 500             | E66288    | N/A             |              |
| BP11/7-612         | E I Dupont        | 500             | E66288    | N/A             |              |
| BP11/7-622         | E I Dupont        | 500             | E66288    | N/A             |              |
| BP14/8-612         | E I Dupont        | 500             | E66288    | N/A             |              |
| BP14/8-622         | E I Dupont        | 500             | E66288    | N/A             |              |
| BP18/11-612        | E I Dupont        | 500             | E66288    | N/A             |              |
| BP18/11-622        | E I Dupont        | 500             | E66288    | N/A             |              |

## List Of Bobbin and Pin Materials

| TDK P/N           | Material Vendor   | Bobbin Material | UL file # | Pin Material   | Pin Plating  |
|-------------------|-------------------|-----------------|-----------|----------------|--------------|
| BP18/11-632       | E I Dupont        | 500             | E66288    | N/A            |              |
| BP18/11-714PFR    | Sumitomo Bakelite | PM-9630         | E41429    | Phospher Bronz | CuSn (~2%Cu) |
| BP18/14-612       | E I Dupont        | 500             | E66288    | N/A            |              |
| BP18/14-622       | E I Dupont        | 500             | E66288    | N/A            |              |
| BP18/14-714PFR    | Sumitomo Bakelite | PM-9630         | E41429    | Phospher Bronz | CuSn (~2%Cu) |
| BP18/14-724PFR    | Sumitomo Bakelite | PM-9630         | E41429    | Phospher Bronz | CuSn (~2%Cu) |
| BP22/13-612       | E I Dupont        | 500             | E66288    | N/A            |              |
| BP22/13-622       | E I Dupont        | 500             | E66288    | N/A            |              |
| BP22/13-632       | E I Dupont        | 500             | E66288    | N/A            |              |
| BP22/13-714PFR    | Sumitomo Bakelite | PM-9630         | E41429    | Phospher Bronz | CuSn (~2%Cu) |
| BP26/16-612       | E I Dupont        | 500             | E66288    | N/A            |              |
| BP26/16-622       | E I Dupont        | 500             | E66288    | N/A            |              |
| BP26/16-632       | E I Dupont        | 500             | E66288    | N/A            |              |
| BP26/16-714PFR    | Sumitomo Bakelite | PM-9630         | E41429    | Phospher Bronz | CuSn (~2%Cu) |
| BP30/19-612       | E I Dupont        | 500             | E66288    | N/A            |              |
| BP30/19-622       | E I Dupont        | 500             | E66288    | N/A            |              |
| BP30/19-632       | E I Dupont        | 500             | E66288    | N/A            |              |
| BP30/19-714PFR    | Sumitomo Bakelite | PM-9630         | E41429    | Phospher Bronz | CuSn (~2%Cu) |
| BP30/19-724PFR    | Sumitomo Bakelite | PM-9630         | E41429    | Phospher Bronz | CuSn (~2%Cu) |
| BP36/22-612       | E I Dupont        | 500             | E66288    | N/A            |              |
| BP36/22-622       | E I Dupont        | 500             | E66288    | N/A            |              |
| BP45/29-112B      | Sumitomo Bakelite | PM-9630         | E41429    | N/A            |              |
| BPQ20/16-0114DSFR | Toray Industries  | AR04            | E41797    | Phospher Bronz | CuSn (~2%Cu) |
| BPQ20/16-1114CPFR | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BPQ20/20-0114DSFR | Toray Industries  | AR04            | E41797    | Phospher Bronz | CuSn (~2%Cu) |
| BPQ20/20-1114CPFR | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BPQ26/20-0112DSFR | Toray Industries  | AR04            | E41797    | Phospher Bronz | CuSn (~2%Cu) |
| BPQ26/20-1112CPFR | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BPQ26/25-0112DSFR | Toray Industries  | AR04            | E41797    | Phospher Bronz | CuSn (~2%Cu) |
| BPQ26/25-1112CPFR | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BPQ32/20-0112DSFR | Toray Industries  | AR04            | E41797    | Phospher Bronz | CuSn (~2%Cu) |
| BPQ32/20-1112CPFR | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BPQ32/30-0112DSFR | Toray Industries  | AR04            | E41797    | Phospher Bronz | CuSn (~2%Cu) |
| BPQ32/30-1112CPFR | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BPQ35/35-0112DSFR | Toray Industries  | AR04            | E41797    | Phospher Bronz | CuSn (~2%Cu) |
| BPQ35/35-1112CPFR | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BPQ40/40-0112DSFR | Toray Industries  | AR04            | E41797    | Phospher Bronz | CuSn (~2%Cu) |
| BPQ40/40-1112CPFR | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BPQ50/50-1112CPFR | Sumitomo Bakelite | PM-9750         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BRM04-716SDFR     | Sumitomo Bakelite | PM-9630         | E41429    | Phospher Bronz | CuSn (~2%Cu) |
| BRM05-714CPFR     | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BRM05-715CPFR     | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BRM05-716CPFR     | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BRM05-718CPFR     | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BRM06-714CPFR     | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire     | CuSn (~2%Cu) |

## List Of Bobbin and Pin Materials

| TDK P/N         | Material Vendor   | Bobbin Material | UL file # | Pin Material   | Pin Plating  |
|-----------------|-------------------|-----------------|-----------|----------------|--------------|
| BRM06-715CPFR   | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BRM06-716CPFR   | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BRM06-724CPFR   | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BRM06-726CPFR   | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BRM08-7112CPFR  | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BRM08-718CPFR   | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BRM08-728CPFR   | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BRM10-7110SDNFR | Sumitomo Bakelite | PM-9630         | E41429    | Phosphor Bronz | CuSn (~2%Cu) |
| BRM10-7112SDFR  | Sumitomo Bakelite | PM-9630         | E41429    | Phosphor Bronz | CuSn (~2%Cu) |
| BRM12-7112CPFR  | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire     | CuSn (~2%Cu) |
| BRM14-7112CPFR  | Sumitomo Bakelite | PM-9630         | E41429    | Steel Wire     | CuSn (~2%Cu) |