



# CROSS REFERENCE - MnZn

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## HIGH PERMEABILITY MATERIALS

| COSMO   | [°C]      | CF140          |                  |              | CF191          | CF195A<br>CF195B | CF265        | CF255        | CF190<br>CF190A | CF197<br>CF197A | CF275        | CF199<br>CF199A |                |               |
|---|-----------|----------------|------------------|--------------|----------------|------------------|--------------|--------------|-----------------|-----------------|--------------|-----------------|----------------|---------------|
| $\mu$   | 25        | 2500<br>±20%   | 4000<br>±25%     | 4000<br>±25% | 4300<br>±20%   | 5000<br>±20%     | 5000<br>±20% | 5500<br>±20% | 6000<br>±20%    | 7000<br>±20%    | 7000<br>±20% | 9000<br>±20%    |                |               |
| Tc [°C]   |           | ≥ 150          | ≥ 140            | ≥ 260        | ≥ 140          | ≥ 120            | ≥ 160        | ≥ 150        | ≥ 120           | ≥ 120           | ≥ 130        | ≥ 115           | ≥ 115          | ≥ 110         |
| Bs [mT]<br>(10kHz)                                    | 25<br>100 | 390<br>310     | 430<br>270       | 550<br>435   | 450<br>300     | 400<br>260       | 460<br>320   | 440<br>310   | 400<br>280      | 400<br>260      | 420<br>240   | 400<br>260      | 360            | 360           |
| $\tan \delta / \mu\text{i} \cdot 10^{-6}$<br>(10kHz)  | 25        |                | < 5              | <1.0         | ≤ 5.0          | ≤ 5.0            | ≤ 5.0        | ≤ 5.0        | ≤ 5.0           | ≤ 7.0           | ≤ 5.0        | ≤ 20            | ≤ 7.0          | ≤ 7.0         |
| $\tan \delta / \mu\text{i} \cdot 10^{-6}$<br>(100kHz) | 25        | <2.5           | < 70<br>(500kHz) | <2.0         | ≤ 20           | ≤ 20             | ≤ 25         | ≤ 15.0       | ≤ 40            | -               | ≤ 25.0       | -               | -              | -             |
| SDG   |           |                | GH5D             |              | GH5D           | GH5              | GH5          | GH6          | GH6             | GH7             | GH7A         | GH10<br>GH10A   | GH12<br>GH12A  | GH15          |
| $\mu$   |           |                | 4300<br>±25%     |              | 4300<br>±25%   | 5500<br>±25%     | 5500<br>±25% | 6000<br>±25% | 6000<br>±25%    | 7000<br>±25%    | 7500<br>±25% | 10000<br>±25%   | 12000<br>±25%  | 15000<br>±25% |
| Tc [°C]   |           |                | > 140            |              | > 140          | > 140            | > 140        | > 140        | > 140           | > 130           | > 130        | > 120           | > 115<br>> 120 | > 110         |
| Bs [mT]<br>(10kHz)                                    | 25        |                | 380              |              | 380            | 410              | 410          | 410          | 410             | 400             | 400          | 400             | 390            | 380           |
| $\tan \delta / \mu\text{i} \cdot 10^{-6}$<br>(10kHz)  |           |                |                  |              |                |                  |              |              |                 |                 | ≤ 7.0        | ≤ 7.0           | ≤ 7.0<br>GH12A | ≤ 7.0         |
| $\tan \delta / \mu\text{i} \cdot 10^{-6}$<br>(100kHz) |           |                | ≤ 15.0           |              | ≤ 15.0         | ≤ 15.0           | ≤ 15.0       | ≤ 15.0       | ≤ 15.0          | ≤ 7.0           |              |                 | ≤ 7.0<br>GH12  |               |
| INDUCTES  |           |                |                  |              | SH5            | SH5              | SH5          |              | SH7             | SH7             | SH10         |                 |                |               |
| TDG   |           | TH2            | TH4              | TD5B         | TH4            | TS5              | TS5          | TS5          | TS5             | TS7             | TS7          | TS10<br>TH10    | TL13           | TL15          |
| TDK-EPCOS   |           | N48            | T57              | N45          | N30            | T65              | T65          | T35          | T35             | T36             | T37          | T38             | T66            | T46           |
| TDK   |           | H6K            |                  |              | H5A            | H5S2<br>HP5      | H5S2<br>HP5  |              | H5B             | H5B2            | HS72<br>H5B2 | HS10<br>H5C2    | H5C4           | H5C3          |
| Ferroxcube  |           | 3H3<br>3B7     | 3S1              | 3S5          | 3C11           | 3E4              | 3E65         | 3E27         | 3E25            | 3E26            | 3E26         | 3E6<br>3E10     | 3E12           | 3E7<br>3E15   |
| Tridelta  |           | Mf183          |                  |              | Mf103<br>Mf193 |                  |              |              | Mf197           |                 |              | Mf199           |                |               |
| Iskra   |           | 26G            |                  | 27G          | 19G            | 23G              |              |              | 22G             | 42G             | 42G          | 12G             | 32G            | 52G           |
| Kaschke   |           | K2007<br>K2005 |                  |              | K4000          | K5500            | K5500        | K6001        | K6000           | K7000           | K8000        | K10000          | K12000         | K15000        |
| ACME  |           | N4             |                  | N42          | A05            | A05              |              | A05          |                 | A07             | A07          | A10             | A121           | A151          |
| DMEGC   |           | DMR70          | DMR73            | DMR71        |                | R5K              | R5K          | R5K          | R5K             | R7K             | R7K          | R10K            | R12K           | R15K          |
| FDK – FUJI  |           | 3H20           |                  |              |                | 2H06             |              |              |                 | 2H07            | 2H07         |                 |                | 2H15          |
| FS  |           |                |                  |              |                | FH5K             |              | FH5K         |                 | FH7K            | FH7K         | FH10K           | FH13K          | FH15K         |
| Hitachi/ Nippon                                       |           |                |                  |              |                |                  |              |              |                 |                 |              | MD10T           |                |               |
| Magnet  |           | JL2            |                  |              |                | JH5              | JH5          | JH5A         |                 | JH7             | JH7A         | JH10            |                |               |
| Magnetics   |           | D, G           |                  |              | T              | N, J             | J            | J            |                 |                 |              | W               |                | H             |
| MMG   |           | P12            |                  |              | F9             | F9               | F9C          | F9C          | FT6             | F10             | F10          | F39             |                |               |
| Neosid  |           | P1             |                  |              |                | F9C              |              |              | F860            | F57             | F57          |                 |                | F942          |
| Pramet  |           |                |                  |              |                | H40              |              |              |                 | H60             | H60          |                 |                |               |
| Nicera  |           |                |                  | 3B           |                | NC-5Y            |              | NC-5Y        |                 | NC7             | NC7          | NC-10H          | 12H            | 15H           |
| SAMWHA  |           | SM23T          |                  |              | SM43T          | SM50             | SM50         |              | SM60            | SM70S           | SM70S        | SM100           |                | SM150         |
| Thomson, AVX  |           | S4, S3<br>A9   |                  |              | A6             | A5               | A5           |              | A4              | A3              | A3           | A2              |                |               |
| TSC Feriten   |           |                |                  |              |                | TSF5000          |              |              |                 | TSF010          | TSF010       |                 | TSF012         | TSF015        |
| VOGT  |           | Fi323          |                  |              |                | Fi340            |              |              | Fi360           |                 |              | Fi410           |                |               |

Note : This cross reference chart is indicative, and intended only to help the customer arrive at material grade nearest the grades of other manufacturers listed herein. We do not claim exact equivalence of our material grades to any other manufacturer's grades. Before confirming orders, customers are advised to refer to the "material information data sheet " listing the detailed magnetic and electrical specifications or get in touch with our sales department at [semic@semic.cz](mailto:semic@semic.cz)



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## POWER MATERIALS

| COSMO                            |     | [°C]         |              |                          | <u>CF292</u> | CF129        | <u>CF196</u>    | <u>CF138</u>   | <u>CF139</u>   | <u>CF297</u> | <u>CF124</u>             | <u>CF130</u><br><u>CF101</u> | <u>CF295</u> |
|----------------------------------|-----|--------------|--------------|--------------------------|--------------|--------------|-----------------|----------------|----------------|--------------|--------------------------|------------------------------|--------------|
| $\mu$ i (25°C)                   | 25  | 1400<br>±25% | 1500<br>±25% | 1800<br>±20%             | 1900<br>±20% | 2000<br>±20% | 2100<br>±20%    | 2100<br>±20%   | 2300<br>±20%   | 2500<br>±20% | 3000<br>±20%             | 3000<br>±20%                 |              |
| Tc [°C]                          |     | ≥ 240        | ≥ 285        | ≥ 240                    | ≥ 240        | ≥ 220        | ≥ 210           | ≥ 210          | ≥ 210          | ≥ 220        | ≥ 220                    | ≥ 220                        |              |
| Bs[mT]                           | 25  | 470          | 510          |                          | 510          | 500          | 480             | 490            | 510            | 490          | 520                      | 525                          |              |
|                                  | 100 | 380          | 440          | 440                      | 410          | 400          | 380             | 390            | 410            | 390          | 410                      | 410                          |              |
| Pcv [kW/m³]- 16kHz<br>(200mT)    | 25  |              |              |                          |              | < 120        |                 |                |                | < 100        | < 55                     |                              |              |
|                                  | 100 |              |              |                          | < 60         | < 110        |                 |                |                | < 90         | < 130                    |                              |              |
| Pcv [kW/m³] - 25kHz<br>(200mT)   | 25  |              |              |                          |              | < 160        |                 |                |                | < 150        |                          |                              |              |
|                                  | 100 |              |              | < 70                     | < 95         | < 140        |                 | < 60           | < 50           | < 130        |                          |                              |              |
| Pcv [kW/m³] - 100 kHz<br>(200mT) | 25  |              |              |                          |              |              |                 |                |                |              | < 390                    | < 400                        |              |
|                                  | 100 |              | < 480        | < 410                    |              |              | < 450           | < 380          | < 350          | < 540        | < 800                    | < 350                        |              |
| Pcv [kW/m³] - 300kHz<br>(100mT)  | 25  |              |              |                          |              |              |                 |                |                |              |                          |                              |              |
|                                  | 100 |              |              | < 410                    | < 750        | < 900        |                 | < 390          | < 340          | < 500        |                          | < 410                        |              |
| Pcv [kW/m³] - 500kHz<br>(50mT)   | 25  |              |              |                          |              |              |                 |                |                |              |                          |                              |              |
|                                  | 100 | < 80         |              | 230                      |              |              |                 | < 215          | < 220          |              |                          | < 250                        |              |
| SDG                              |     |              | <u>GP4C</u>  | <u>GP4C</u>              | <u>GP4B</u>  | <u>GP90</u>  | <u>GP4</u>      | <u>GP4</u>     | <u>GP44</u>    | <u>GP44</u>  | <u>GP5</u>               | <u>GP4A</u>                  | <u>GP95</u>  |
| $\mu$ i (25°C)                   | 25  | 1500<br>±25% | 1500<br>±25% | 1800<br>±25%             | 2200<br>±25% | 2300<br>±25% | 2300<br>±25%    | 2400<br>±25%   | 2400<br>±25%   | 2900<br>±25% | 2800<br>±25%             | 3300<br>±25%                 |              |
| Tc [°C]                          |     | > 245        | > 245        | > 225                    | > 250        | > 215        | > 215           | > 215          | > 215          | > 215        | > 215                    | ≥ 215                        |              |
| Bs[mT]                           | 25  | 475          | 475          | 510                      | 540          | 500          | 500             | 500            | 500            | 500          | 500                      | 510                          |              |
|                                  | 100 | 400          | 400          | 410                      | 450          | 380          | 380             | 390            | 390            | 380          | 380                      | 400                          |              |
| Pcv [kW/m³] - 100 kHz<br>(200mT) | 25  | 1100         | 1100         | 660                      | 680          | 600          | 600             | 600            | 600            | 480          | 580                      | 380                          |              |
|                                  | 100 | 550          | 550          | 440                      | 320          | 410          | 410             | 300            | 300            | 500          | 480                      | 320                          |              |
| INDUCTES                         |     |              | <u>SH50</u>  |                          | <u>SH36</u>  | <u>SH30</u>  | <u>SH40</u>     | <u>SH40</u>    | <u>SH44</u>    | <u>SH44</u>  |                          | <u>SH95</u>                  |              |
| TDG                              |     | TP5          | TP4E         | TP4E                     |              | TP3          | TP4             | TP4A           | TP4S           | TP4          | TP4B<br>TP4C             | TP4W<br>TPW33                |              |
| TDK-EPCOS                        |     | <u>N49</u>   | <u>N92</u>   | <u>N92</u><br><u>N88</u> | <u>N88</u>   | <u>N27</u>   | <u>N67</u>      | <u>N87</u>     | <u>N97</u>     | <u>N72</u>   | <u>N41</u><br><u>N51</u> | <u>N95</u>                   |              |
| TDK                              |     | PC50         | PC33         | HV22<br>PE22             | PC90         | PC30         | PC40            | PC44           | PC47           |              | PC46                     | PC95                         |              |
| Ferroxcube                       |     | 3F35         | 3C92         | 3C92<br>3C93             |              | 3C80<br>3C81 | 3C90            | 3C94<br>3F3    | 3C96<br>3C97   | 3C98         | 3C91<br>3C81             | 3C95<br>3C95A                |              |
| Tridelta                         |     |              | Mf114        | Mf104                    | Mf104        | Mf196        | Mf198A          | Mf102          | Mf106          |              | Mf196B                   | Mf95                         |              |
| Iskra                            |     | 75G          | 75 G         | 55G                      |              | 15G          | 35G             | 45G            | 65G            |              | 25G                      |                              |              |
| Kaschke                          |     | <u>K2001</u> | <u>K2024</u> | <u>K2026</u>             |              | <u>K2004</u> | <u>K2006</u>    | <u>K2008</u>   | <u>K2010</u>   | <u>K2500</u> | <u>K2500</u>             | <u>K2500</u>                 |              |
| ACME                             |     | P51          | P42          | P42                      | P49          | P-5          | P4              | P41            | P48            | N-4          | P2<br>P16                | P46                          |              |
| DMEGC                            |     | DMR50        | DMR21        | DMR24<br>DMR25           |              | DMR30        | DMR40           | DMR44<br>DMR55 | DMR47<br>DMR90 |              | DMR46                    | DMR95                        |              |
| FDK – FUJI                       |     | 7H10         | 7H10         | 7H10                     |              | 5H20         | 6H20            | 6H40           | 6H41<br>7H10   |              | 6H10                     | 6H42                         |              |
| FS                               |     |              |              |                          |              |              | <u>FP40</u>     | <u>FP44</u>    | FP44           |              | <u>FP95</u>              |                              |              |
| HITACHI / NIPPON                 |     | ML14D        | ML14D        | ML14D                    | MB19D        | SB-3L        | ML-240<br>SB-7C | SB-9C          | ML-25D         | ML-24D       | MT-30D                   | MB28D<br>ML-32D              |              |
| Magnet                           |     | JP5          |              |                          |              | JP3          | JP4             | JP4A           | JP4B           |              |                          | JP2                          |              |
| Magnetics                        |     | K            | H            | H                        |              |              | P               | R              | P              | P            | F                        |                              |              |
| MMG / Neosid                     |     | F49          | F49          | F49                      |              | F5           | F44             | F48            | F48            | F5A          | F5C                      | F63                          |              |
| Nicera                           |     | 5M           | BM29         | BM27                     |              |              |                 | NC2H           | 2HM5           |              | NC1L                     |                              |              |
| Pramet                           |     |              |              |                          |              | H21,H22      | H24             |                |                |              |                          |                              |              |
| SAMWHA                           |     | PL-F1        |              |                          |              | SM19B        | PL5<br>SM19C    | PL7            | PL11           | PL5          | SM19D                    |                              |              |
| Thomson, AVX                     |     |              | B5           | B5                       |              | B3           | B2              | F2             |                | B4           | B1                       |                              |              |
| NEC / TOKIN                      |     | B40          | B40          | BH3                      |              | B2500        | BH2             | BH1            | B40            |              | B3100                    |                              |              |
| TSC Feriten                      |     |              |              |                          |              | TSF-7070     | TSF-7099        | TSF-5080       |                | TSF7070      |                          |                              |              |
| VOGT                             |     |              | Fi328        |                          |              | Fi322        | Fi324           | Fi325          | Fi325          |              | Fi323                    |                              |              |