

# Specifications

|                     |                                 |           |                 |                   |                         |
|---------------------|---------------------------------|-----------|-----------------|-------------------|-------------------------|
| Product Name        | Neodymium $\Phi$ 10mmx15.5mm    |           |                 |                   |                         |
| Product Code        | ND0465                          |           |                 |                   |                         |
| Content             | Name                            | Symbol    | SI              |                   | CGS                     |
| Shape               | Diameter                        | D         | 10              | mm                | 1 cm                    |
|                     | Height                          | H         | 15.5            | mm                | 1.55 cm                 |
|                     | Dimensional tolerance<br>+/-    | D         | 0.1             | mm                | 0.01 cm                 |
|                     |                                 | H         | 0.1             | mm                | 0.01 cm                 |
|                     | Magnetization direction         | M         | Axial direction |                   |                         |
| Surface treatment   | NiCuNi                          | 12        | $\mu$ m         | -                 |                         |
| Magnetic Properties | Surface flux density            | B         | 522.6           | mT                | 5226 G                  |
|                     | Attractive and Adsorptive Force | F         | 3.9             | kgf               | 3908 gf                 |
|                     | Operating Point Flux Density    | Bd        | 1023.7          | mT                | 10237 G                 |
|                     | Total Flux                      | $\phi_o$  | 0.0000804       | Wb                | 8040 Mx                 |
|                     | Permeance Coefficient           | Pc        | 6.28            | Pc                | -                       |
|                     | Operating Temperature Limit     | Tw        | 135             | $^{\circ}$ C      | 275 $^{\circ}$ F        |
| Material Properties | Material Symbol                 | Neodymium | 35              |                   |                         |
|                     | Residual Flux Density           | Br        | 1170-1220       | mT                | 11.7-12.2 kG            |
|                     | Coercive Force                  | Hcb       | $\geq$ 868      | kA/m              | $\geq$ 10.9 kOe         |
|                     | Intrinsic coercive force        | Hcj       | $\geq$ 955      | kA/m              | $\geq$ 12 kOe           |
|                     | Maximum energy product          | BH        | 263-287         | kJ/m <sup>3</sup> | 33-36 MGOe              |
|                     | Temperature coefficient         | Br        | -0.12           | %/ $^{\circ}$ C   | 31.78 %/ $^{\circ}$ C   |
|                     |                                 | Hcj       | -0.55           | %/ $^{\circ}$ C   | 31.01 %/ $^{\circ}$ C   |
|                     | Heat resistance temperature     | Tw        | $\leq$ 80       | $^{\circ}$ C      | $\leq$ 176 $^{\circ}$ F |
|                     | Curie temperature               | Tc        | 310             | $^{\circ}$ C      | 590 $^{\circ}$ F        |
|                     | Density                         | $\rho$    | 7.5             | kg/m <sup>3</sup> | -                       |
| Weight              | Net                             | 0.00913   | kg              | 9.13 g            |                         |
| Remarks             | REACH RoHS Directive            |           |                 |                   |                         |

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