

# Specifications

|                     |                                 |           |                 |                   |                         |
|---------------------|---------------------------------|-----------|-----------------|-------------------|-------------------------|
| Product Name        | Neodymium $\Phi$ 9mmx4mm        |           |                 |                   |                         |
| Product Code        | ND0181                          |           |                 |                   |                         |
| Content             | Name                            | Symbol    | SI              |                   | CGS                     |
| Shape               | Diameter                        | D         | 9               | mm                | 0.9 cm                  |
|                     | Height                          | H         | 4               | mm                | 0.4 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         | 360             | mT                | 3600 G                  |
|                     | Attractive and Adsorptive Force | F         | 1.54            | kgf               | 1542 gf                 |
|                     | Operating Point Flux Density    | Bd        | 642.7           | mT                | 6427 G                  |
|                     | Total Flux                      | $\phi_o$  | 0.00004088      | Wb                | 4088 Mx                 |
|                     | Permeance Coefficient           | Pc        | 1.22            | Pc                | -                       |
|                     | Operating Temperature Limit     | Tw        | 90              | $^{\circ}$ C      | 194 $^{\circ}$ 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                             | 0.0019    | kg              | 1.9 g             |                         |
| Remarks             | REACH RoHS Directive            |           |                 |                   |                         |

All magnetic property values are for reference only. Please use them only as reference values when referring to actual magnetic application products or for research and development. We are not responsible for any liability resulting from the use of reference values. The contents of this document are subject to change without notice due to improvements or other reasons.