

# Specifications

|                      |                                 |           |                 |                   |                         |
|----------------------|---------------------------------|-----------|-----------------|-------------------|-------------------------|
| Product Name         | Neodymium $\Phi$ 4mmx1mm        |           |                 |                   |                         |
| Product Code         | ND0051                          |           |                 |                   |                         |
| Content              | Name                            | Symbol    | SI              |                   | CGS                     |
| Shape                | Diameter                        | D         | 4               | mm                | 0.4 cm                  |
|                      | Height                          | H         | 1               | mm                | 0.1 cm                  |
|                      | Dimensional tolerance<br>+/-    | D         | 0.1             | mm                | 0.01 cm                 |
|                      |                                 | H         | 0.1             | mm                | 0.01 cm                 |
|                      | Magnetization direction         | M         | Axial direction |                   |                         |
| Magnetic Properties  | Surface treatment               | NiCuNi    | 12              | $\mu$ m           | -                       |
|                      | Surface flux density            | B         | 209.8           | mT                | 2098 G                  |
|                      | Attractive and Adsorptive Force | F         | 0.204           | kgf               | 204 gf                  |
|                      | Operating Point Flux Density    | Bd        | 440.2           | mT                | 4402 G                  |
|                      | Total Flux                      | $\phi$ o  | 0.00000553      | Wb                | 553 Mx                  |
|                      | Permeance Coefficient           | Pc        | 0.61            | Pc                | -                       |
| Material Properties  | Operating Temperature Limit     | Tw        | 80              | $^{\circ}$ C      | 176 $^{\circ}$ F        |
|                      | 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        |
| Remarks              | Density                         | $\rho$    | 7.5             | kg/m <sup>3</sup> | -                       |
|                      | Weight                          | Net       | 0.0000942       | kg                | 0.0942 g                |
| REACH RoHS Directive |                                 |           |                 |                   |                         |

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