

# Specifications

|                     |                                 |           |                 |                   |             |                 |
|---------------------|---------------------------------|-----------|-----------------|-------------------|-------------|-----------------|
| Product Name        | Neodymium $\Phi$ 5mmx4mm        |           |                 |                   |             |                 |
| Product Code        | ND0057                          |           |                 |                   |             |                 |
| Content             | Name                            | Symbol    | SI              |                   | CGS         |                 |
| Shape               | Diameter                        | D         | 5               | mm                | 0.5         | 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         | 412.9           | mT                | 4129        | G               |
|                     | Attractive and Adsorptive Force | F         | 0.775           | kgf               | 775         | gf              |
|                     | Operating Point Flux Density    | Bd        | 849.3           | mT                | 8493        | G               |
|                     | Total Flux                      | $\phi$ o  | 0.00001667      | Wb                | 1667        | Mx              |
|                     | Permeance Coefficient           | Pc        | 2.58            | Pc                | -           |                 |
|                     | Operating Temperature Limit     | Tw        | 100             | $^{\circ}$ C      | 212         | $^{\circ}$ 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                             | 0.000589  | kg              | 0.589             | g           |                 |
| Remarks             | REACH RoHS Directive            |           |                 |                   |             |                 |

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