

# Specifications

|                     |                                 |           |                 |                   |                          |
|---------------------|---------------------------------|-----------|-----------------|-------------------|--------------------------|
| Product Name        | Neodymium $\Phi$ 19mmx11mm      |           |                 |                   |                          |
| Product Code        | ND0287                          |           |                 |                   |                          |
| Content             | Name                            | Symbol    | SI              |                   | CGS                      |
| Shape               | Diameter                        | D         | 19              | mm                | 1.9    cm                |
|                     | Height                          | H         | 11              | mm                | 1.1    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         | 445.9           | mT                | 4459    G                |
|                     | Attractive and Adsorptive Force | F         | 8.92            | kgf               | 8923    gf               |
|                     | Operating Point Flux Density    | Bd        | 738.9           | mT                | 7389    G                |
|                     | Total Flux                      | $\phi$ o  | 0.00020951      | Wb                | 20951    Mx              |
|                     | Permeance Coefficient           | Pc        | 1.7             | 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                             | 0.0233    | kg              | 23.3    g         |                          |
| Remarks             | REACH RoHS Directive            |           |                 |                   |                          |

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