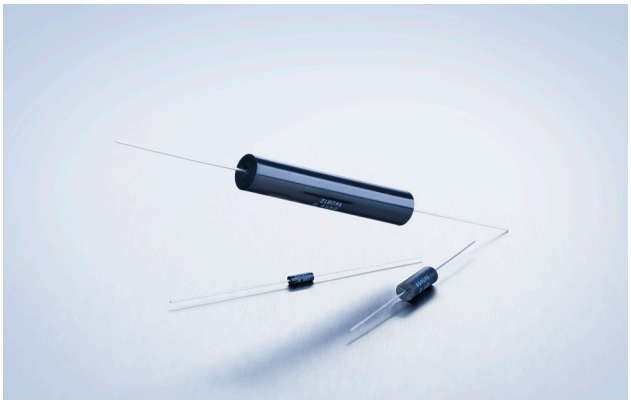
A Miba Group Company

# High Precision Metal Film Resistors

## Series EE

### Molded style

EBG Resistor´s EE series conform dimensionally to the RN series of MIL-R-10509 and the RNR series of MIL-R-55182. All of EBG`s Metal Film Resistor series offer performances that exceed the requirements of both of these specifications. EE series can be used for automatic insertion and/or encapsulation.



### Technical Specifications

| | |
|---|---|
| **Resistance value** | 10 Ω ≤ 10 MΩ (other values on special request) |
| **Resistance tolerance** | ±1 % to ±0.02 % |
| **Temperature coefficient** | ±5 ppm/°C to ±50 ppm/°C<br>TCR referenced to 25°C, ΔR taken at +25°C and +85°C (other TCR on special request) |
| | elements are produced and tested in accordance with MIL-R-150509, MIL-R-55182, MIL-STD-202 |
| **Special feature** | series UAR (ask for details) |

### Standard Specifications

| Model no. | Wattage 70°C | Max. continuous oper. Volt. | Resistance values | | Dimensions in millimeters (inches) | | |
|---|---|---|---|---|---|---|---|
| | | | Min. | Max. | L | D | A |
| **EE 1/20** | 0.125 | 200 | 10 Ω | 2 MΩ | 4.30 ± .30 (.169 ± .01) | 1.90 ± .40 (.075 ± .02) | .40 ± .05 (.016 ± .002) |
| **EE 1/10** | 0.250 | 200 | 10 Ω | 10 MΩ | 6.80 ± .30 (.268 ± .01) | 2.50 ± .40 (.169 ± .01) | .60 ± .05 (.024 ± .002) |
| **EE 1/8** | 0.500 | 250 | 10 Ω | 10 MΩ | 10.20 ± .30 (.402 ± .01) | 3.80 ± .30 (.149 ± .01) | .60 ± .05 (.024 ± .002) |
| **EE 1/4** | 0.750 | 300 | 10 Ω | 10 MΩ | 15.10 ± .30 (.594 ± .01) | 5.20 ± .30 (.205 ± .01) | .60 ± .05 (.024 ± .002) |
| **EE 1/2** | 1.000 | 350 | 10 Ω | 10 MΩ | 18.40 ± .30 (.724 ± .01) | 6.50 ± .30 (.256 ± .01) | .80 ± .05 (.031 ± .002) |

| **Type MIL-R-10509** | **EE 1/20 RN55** | **EE 1/10 RN55** | **EE 1/8 RN60** | **EE 1/4 RN65** | **EE 1/2 RN70** |
|---|---|---|---|---|---|
| **Power rating (W at 125°C)** | .05 | .10 | .125 | .25 | .50 |
| **Max. working voltage (V)** | 200 | 200 | 250 | 300 | 350 |

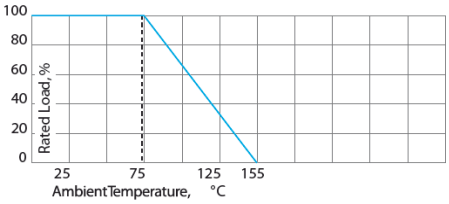
On special request, EBG Resistor will conduct a "burn-in" of these elements for ultimate stability. Please refer to the UAR (Ultra Accurate Resistor) series and ask for a detailed datasheet!

### Dimensions for EE / NE series

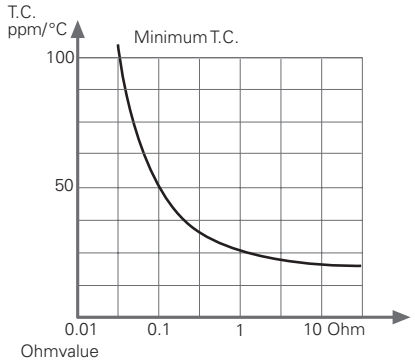

### How to make a request

**EE or NE-model. no_Ohmic value_Tolerance_TC**

**For example:**
EE 1/2 10M 0.1% 5ppm




### Temperature Coefficient




## Series NE

### Molded style

EBG Resistor´s NE series features extremely low ranges, so far unavailable in the industry. As a result of a special proprietary filming method, a nickel film is employed with controlled amounts of other metals, which results in fracturial resistance value availability, but with low temperature coefficient of resistance and high stability.

### Technical Specifications

| | |
|---|---|
| **Resistance value** | 0.05 Ω ≤ 10 Ω (other values on special request) |
| **Resistance tolerance** | ±5 % to ±0.05 % |
| **Temperature coefficient** | according to drawing |
| **Operating temperature** | -55°C to +155°C |
| **Insulation resistance** | 104 MΩ at 500 V DC |
| **Noise** | less than 0.05 µV/V |

### Standard Specifications

| Model no. | Wattage | Resistance values | | Dimensions in millimeters (inches) | | |
|---|---|---|---|---|---|---|
| | | Min. | Max. | L | D | A |
| **NE 1/10** | 0.25 | 0.05 Ω | 10 Ω | 6.80 ± .30 (.268 ± .01) | 2.50 ± .40 (.169 ± .01) | .60 ± .05 (.024 ± .002) |
| **NE 1/8** | 0.50 | 0.05 Ω | 10 Ω | 10.20 ± .30 (.402 ± .01) | 3.80 ± .30 (.149 ± .01) | .60 ± .05 (.024 ± .002) |
| **NE 1/4** | 1.00 | 0.05 Ω | 10 Ω | 15.10 ± .30 (.594 ± .01) | 5.20 ± .30 (.205 ± .01) | .60 ± .05 (.024 ± .002) |
| **NE 1/2** | 1.50 | 0.05 Ω | 10 Ω | 18.40 ± .30 (.724 ± .01) | 6.50 ± .30 (.256 ± .01) | .80 ± .05 (.031 ± .002) |

The above spec. sheet features our standard products. For further options please contact our local EBG representative or contact us directly.