

Carbon Film Resistors, General Purpose, High Voltage



FEATURES

- Ratings to 10 W, 40 kV
- Available with either radial lugs or axial leads
- Epoxy/enamel coated, with additional Mylar® heat shrink sleeve 0.002" (0.051 mm) thick
- ± 20 % tolerance standard, tolerances of ± 15 %, ± 10 % and ± 5 % available
- See models D and G for special purpose high voltage carbon film resistors
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



Note

* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non-RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details.

STANDARD ELECTRICAL SPECIFICATIONS

| GLOBAL MODEL | POWER RATING $P_{25\text{ }^{\circ}\text{C}}$ W | MAXIMUM WORKING VOLTAGE ⁽¹⁾ V | RESISTANCE RANGE ⁽²⁾ Ω | TOLERANCE ⁽³⁾ ± % | STYLE |
|--------------|---|---|--------------------------------------|---------------------------------|-------|
| BAEW | 0.5 | 2.5K | 50K to 500M | 5, 10, 15, 20 | 2 |
| BAKW | 1 | 5K | 100K to 500M | 5, 10, 15, 20 | 2 |
| BBF | 1 | 3.5K | 50K to 500M | 5, 10, 15, 20 | 1 |
| BBFW | 1 | 3.5K | 50K to 500M | 5, 10, 15, 20 | 2 |
| BBM | 2 | 7.5K | 50K to 500M | 5, 10, 15, 20 | 1 |
| BBMW | 2 | 7.5K | 50K to 500M | 5, 10, 15, 20 | 2 |
| BBR | 3 | 15K | 100K to 500M | 5, 10, 15, 20 | 1 |
| BBRW | 3 | 15K | 100K to 500M | 5, 10, 15, 20 | 2 |
| BBV | 5 | 30K | 200K to 500M | 5, 10, 15, 20 | 1 |
| BFQ | 4 | 15K | 100K to 500M | 5, 10, 15, 20 | 1 |
| BFT | 6 | 25K | 200K to 500M | 5, 10, 15, 20 | 1 |
| BFW | 10 | 40K | 400K to 500M | 5, 10, 15, 20 | 1 |
| TAFW | 1 | 5K | 1M to 500M | 5, 10, 15, 20 | 3 |
| TAKW | 1.5 | 7.5K | 1M to 500M | 5, 10, 15, 20 | 3 |

Notes

- ⁽¹⁾ Continuous working voltage shall be $\sqrt{P \times R}$ or maximum working voltage, whichever is less.
- ⁽²⁾ All resistance values are calibrated at 100 V_{DC}-calibration at other voltages available on request. Contact factory for availability of values outside the listed range.
- ⁽³⁾ ± 20 % standard, ± 5 %, ± 10 %, and ± 15 % are available.

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: **BAEW2M50LF08** (preferred part numbering format)

B **A** **E** **W** **2** **M** **5** **0** **L** **F** **0** **8**

| GLOBAL MODEL (3 or 4 digits) (see Standard Electrical Specifications table) | RESISTANCE VALUE K = kΩ M = MΩ 50K0 = 50 kΩ 1M00 = 1 MΩ 500M = 500 MΩ | TOLERANCE CODE J = ± 5 % K = ± 10 % L = ± 15 % M = ± 20 % | PACKAGING E08 = Lead (Pb)-free, foam (B series only) E22 = Lead (Pb)-free, bulk (TAFW, TAKW only) F08 = Tin/lead, foam (B series only) B22 = Tin/lead, bulk (TAFW, TAKW only) | SPECIAL Blank = Standard (Dash Number) (up to 3 digits) From 1 to 999 as applicable |
|---|---|---|---|--|
|---|---|---|---|--|

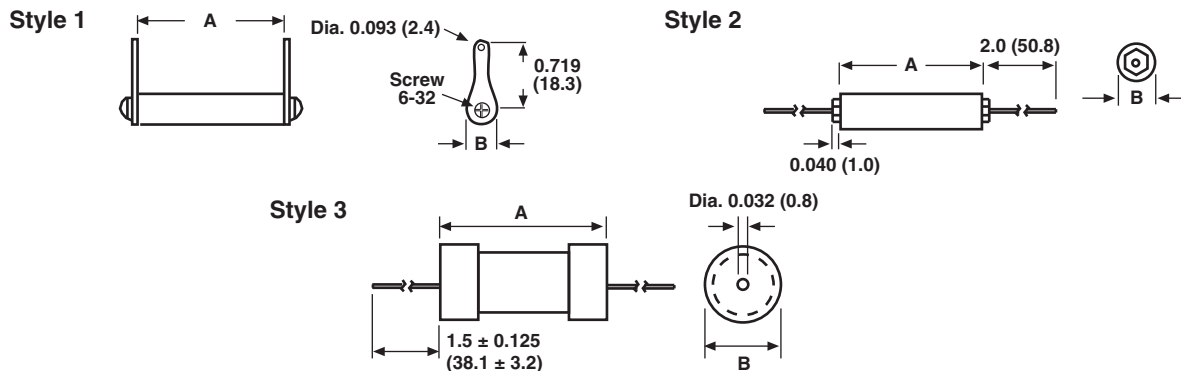
Historical Part Number example: **BAEW 2M50 15 %** (will continue to be accepted)

| | | | |
|------------------|------------------|----------------|------------|
| BAEW | 2M50 | 15 % | F08 |
| HISTORICAL MODEL | RESISTANCE VALUE | TOLERANCE CODE | PACKAGING |

Note

- For additional information on packaging, refer to the Through Hole Resistor Packaging document (www.vishay.com/doc?31544).

DIMENSIONS in inches (millimeters)

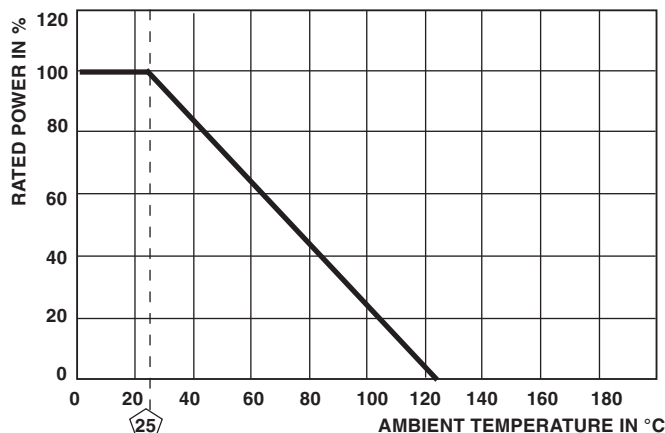


| GLOBAL MODEL | STYLE | A | B |
|--------------|-------|----------------------------|-----------------------------|
| BAEW | 2 | 0.75 (19.05) | 0.250 (6.35) |
| BAKW | 2 | 1.50 (38.10) | 0.250 (6.35) |
| BBF | 1 | 1.00 (25.40) | 0.313 (7.95) |
| BBFW | 2 | 1.00 (25.40) | 0.313 (7.95) |
| BBM | 1 | 1.75 (44.45) | 0.313 (7.95) |
| BBMW | 2 | 1.75 (44.45) | 0.313 (7.95) |
| BBR | 1 | 3.00 (76.20) | 0.313 (7.95) |
| BBRW | 2 | 3.00 (76.20) | 0.313 (7.95) |
| BBV | 1 | 5.50 (139.70) | 0.313 (7.95) |
| BFQ | 1 | 2.50 (63.50) | 0.563 (14.30) |
| BFT | 1 | 4.00 (101.60) | 0.563 (14.30) |
| BFW | 1 | 6.50 (165.10) | 0.563 (14.30) |
| TAFW | 3 | 1.05 ± 0.05 (26.70 ± 1.30) | 0.275 ± 0.020 (7.00 ± 0.50) |
| TAKW | 3 | 1.55 ± 0.05 (39.40 ± 1.30) | 0.275 ± 0.020 (7.00 ± 0.50) |

Note

- Models B axial leads are #20 AWG tinned copper. All other dimensional tolerances for styles 1 and 2, unless otherwise specified are ± 0.016" [0.406 mm] or ± 1 %, whichever is greater.

DERATING



| MARKING |
|--|
| <ul style="list-style-type: none"> - DALE - Model - Value - Tolerance - Date code |



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