

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


RoHS*
Available

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 $P_{25^{\circ}\text{C}}$ 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

HISTORICAL MODEL

2M50

RESISTANCE VALUE

15 %

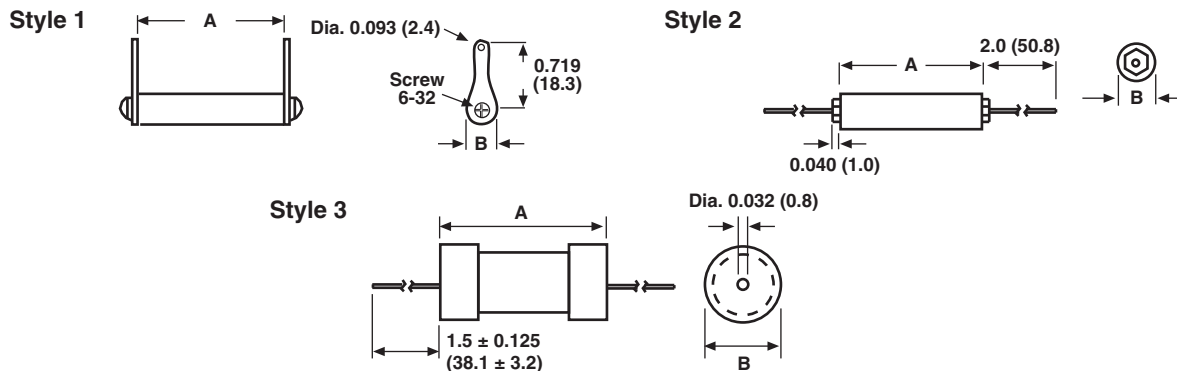
TOLERANCE CODE

F08

PACKAGING

Note

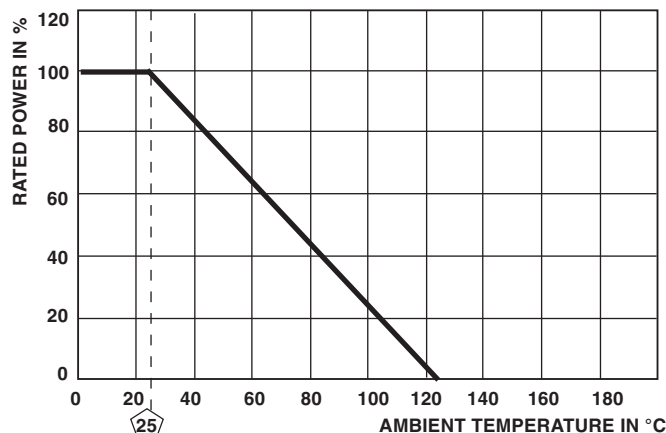
- For additional information on packaging, refer to the Through Hole Resistor Packaging document (www.vishay.com/doc?31544).

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 $\pm 0.016"$ [0.406 mm] or $\pm 1\%$, whichever is greater.

DERATING

MARKING

- DALE
- Model
- Value
- Tolerance
- Date code



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