

SMT Aluminum Electrolytic Capacitors - High Voltage, 105 °C

Low Impedance and Long Life for High Voltage, High Ripple Current Applications



Type AEB capacitors are it for high voltage applications like input bus capacitors in board mounted miniature AC/DC supplies. The AEB's low impedance in ratings up to 450 Vdc, and long life, make it ideal for power supply input and other high voltage applications. The vertical, cylindrical cases make easy automatic mounting and reflow soldering.

Highlights

- ◆ +105 °C, Up to 5000 Hour Load Life
- ◆ Capacitance Range: 2.2 μF to 100 μF
- ◆ Voltage Range: 160 Vdc to 450 Vdc

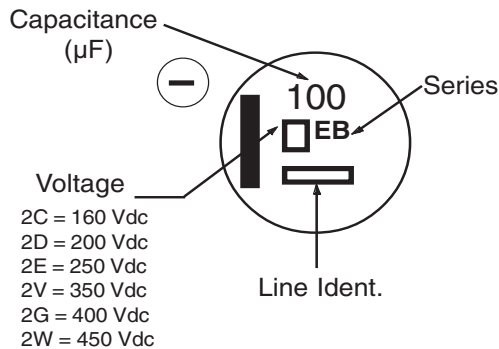
Specifications

| | |
|-------------------------------|----------------------------------|
| Operating Temperature: | -20 °C to +105 °C |
| Rated Voltage: | 160, 200, 250, 350, 400, 450 Vdc |
| Capacitance: | 2.2 μF to 100 μF |
| Capacitance Tolerance: | ±20% @ 120 Hz and +20 °C |

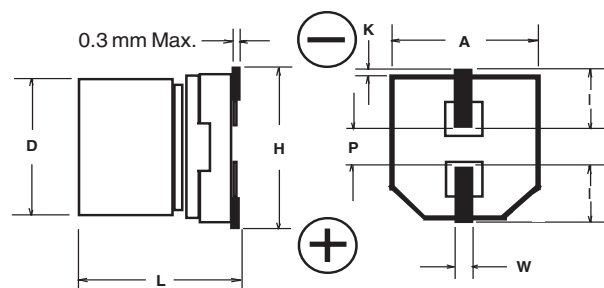
Life Test: 5000 h @ +105 °C, L — S Cases
 4000 h @ +105 °C, K Case
 3000 h @ +105 °C, J Case
 Δ Capacitance ±20%
 DF: ≤ 200% of limit
 DCL: ≤ 100% of limit

Shelf Test: 1000 h @ 105 °C
 Δ Capacitance ±20%
 DF: ≤ 200% of limit
 DCL: ≤ 100% of limit

EB Series Marking



Outline Drawing



Case Dimensions

| Case Code | D ±0.5 | L ±0.5 | A ±0.2 | H (max) | I (ref) | W | P (ref) | K (mm) |
|-----------|--------|--------|--------|---------|---------|----------|---------|----------|
| J | 10.0 | 13.5 | 10.3 | 12 | 3.5 | 0.9 ±0.2 | 4.6 | 0.7 ±0.2 |
| K | 10.0 | 16.5 | 10.3 | 12 | 3.5 | 0.9 ±0.2 | 4.6 | 0.7 ±0.2 |
| L | 12.5 | 16.5 | 13.5 | 15 | 4.7 | 0.9 ±0.3 | 4.4 | 0.7 ±0.3 |
| P | 16.0 | 16.5 | 17.0 | 19 | 6.7 | 1.2 ±0.3 | 6.7 | 0.7 ±0.3 |
| U | 16.0 | 21.5 | 17.0 | 19 | 6.7 | 1.2 ±0.3 | 6.7 | 0.7 ±0.3 |
| R | 18.0 | 16.5 | 19.0 | 21 | 6.7 | 1.2 ±0.3 | 6.7 | 0.7 ±0.3 |
| S | 18.0 | 21.5 | 19.0 | 21 | 6.7 | 1.2 ±0.3 | 6.7 | 0.7 ±0.3 |

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Ratings

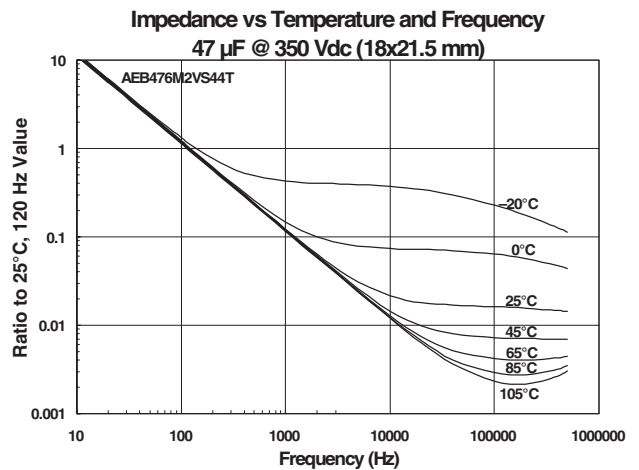
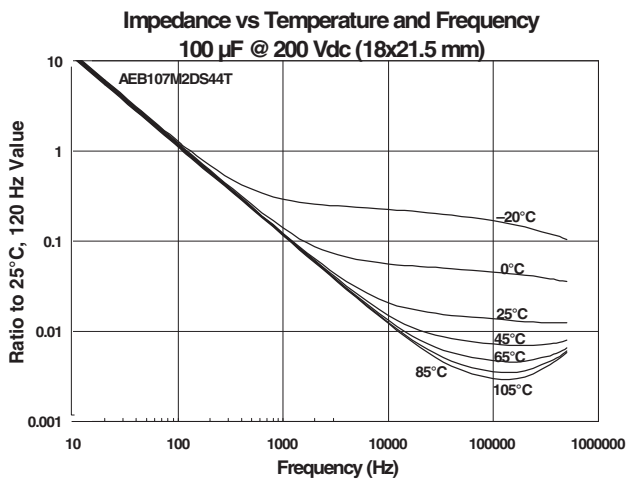
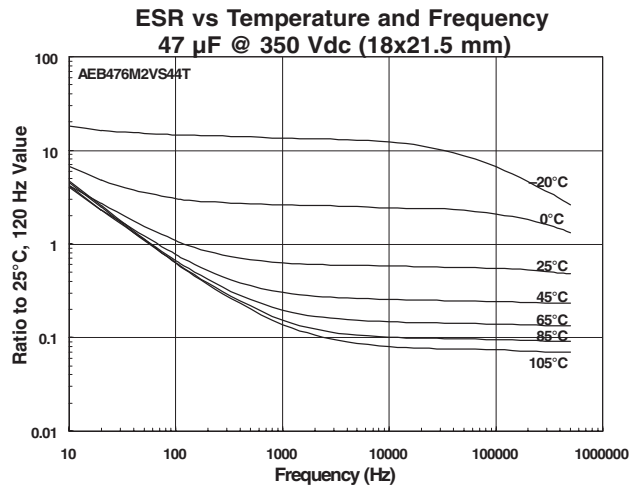
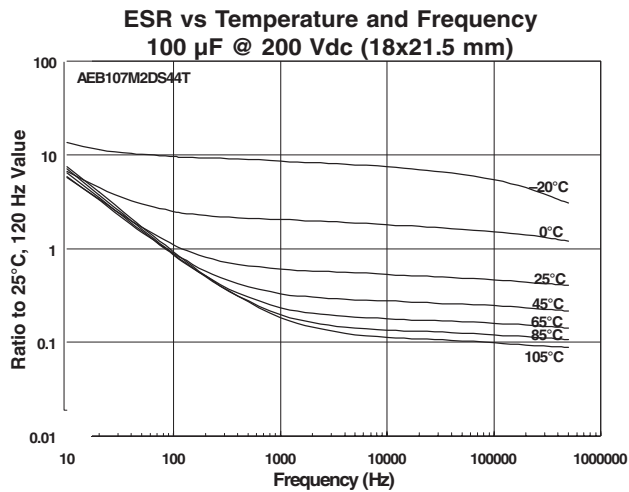
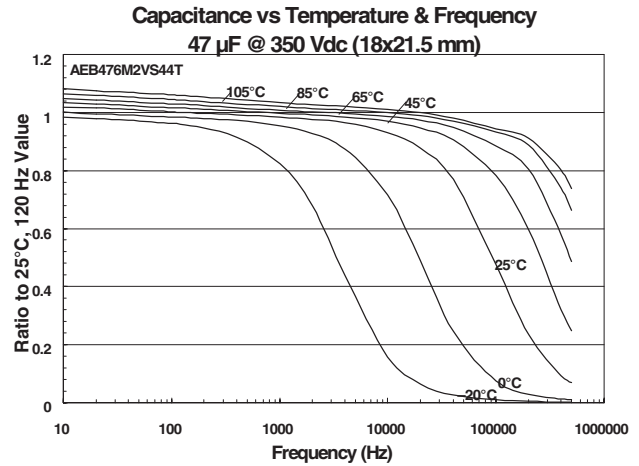
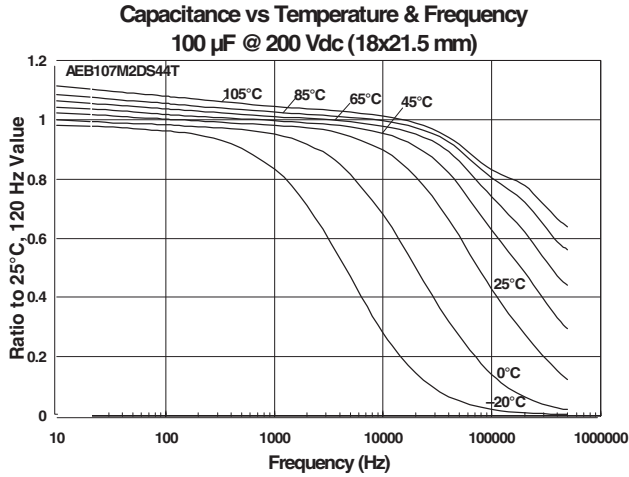
| Cap (μ F) | Catalog Part Number | Max. DCL 2 min (μ A) | Max. Dissipation Factor @ 120 Hz 20 °C | Max. Impedance @ 100 kHz 20 °C (Ω) | Max. Ripple Current @ 105 °C 100 kHz (mA) | Size (mm) D x L | Quantity Per Reel |
|-------------------|------------------------|------------------------------------|--|---|---|--------------------|-------------------------|
| 160 Vdc | | | | | | | |
| 10.0 | AEB106M2CJ32T | 106 | 0.15 | 3.00 | 70 | 10 x 13.5 | 250 |
| 33.0 | AEB336M2CL32T | 327 | 0.15 | 1.80 | 470 | 12.5 x 16.5 | 150 |
| 47.0 | AEB476M2CP44T | 461 | 0.15 | 1.40 | 600 | 16 x 16.5 | 125 |
| 68.0 | AEB686M2CU44T | 663 | 0.15 | 0.55 | 750 | 16 x 21.5 | 75 |
| 68.0 | AEB686M2CR44T | 663 | 0.15 | 0.80 | 750 | 18 x 16.5 | 125 |
| 100.0 | AEB107M2CS44T | 970 | 0.15 | 0.50 | 1060 | 18 x 21.5 | 75 |
| 200 Vdc | | | | | | | |
| 22.0 | AEB226M2DL32T | 274 | 0.15 | 1.80 | 470 | 12.5 x 16.5 | 150 |
| 33.0 | AEB336M2DP44T | 406 | 0.15 | 1.40 | 600 | 16 x 16.5 | 125 |
| 47.0 | AEB476M2DR44T | 574 | 0.15 | 0.80 | 600 | 18 x 16.5 | 125 |
| 68.0 | AEB686M2DU44T | 826 | 0.15 | 0.55 | 750 | 16 x 21.5 | 75 |
| 100.0 | AEB107M2DS44T | 1210 | 0.15 | 0.50 | 1060 | 18 x 21.5 | 75 |
| 250 Vdc | | | | | | | |
| 10.0 | AEB106M2EK32T | 160 | 0.15 | 2.50 | 88 | 10 x 16.5 | 200 |
| 22.0 | AEB226M2EP44T | 340 | 0.15 | 1.60 | 560 | 16 x 16.5 | 125 |
| 33.0 | AEB336M2ER44T | 505 | 0.15 | 0.85 | 560 | 18 x 16.5 | 125 |
| 47.0 | AEB476M2EU44T | 715 | 0.15 | 0.70 | 710 | 16 x 21.5 | 75 |
| 68.0 | AEB686M2ES44T | 1030 | 0.15 | 0.60 | 990 | 18 x 21.5 | 75 |
| 350 Vdc | | | | | | | |
| 10.0 | AEB106M2VP44T | 220 | 0.20 | 3.20 | 270 | 16 x 16.5 | 125 |
| 22.0 | AEB226M2VR44T | 472 | 0.20 | 1.60 | 350 | 18 x 16.5 | 125 |
| 33.0 | AEB336M2VU44T | 703 | 0.20 | 1.20 | 480 | 16 x 21.5 | 75 |
| 47.0 | AEB476M2VS44T | 997 | 0.20 | 1.00 | 670 | 18 x 21.5 | 75 |
| 400 Vdc | | | | | | | |
| 3.3 | AEB335M2GJ32T | 89 | 0.24 | 8.00 | 40 | 10 x 13.5 | 250 |
| 4.7 | AEB475M2GK32T | 123 | 0.24 | 5.50 | 50 | 10 x 16.5 | 200 |
| 10.0 | AEB106M2GP44T | 250 | 0.24 | 3.60 | 250 | 16 x 16.5 | 125 |
| 22.0 | AEB226M2GU44T | 538 | 0.24 | 2.20 | 410 | 16 x 21.5 | 75 |
| 33.0 | AEB336M2GS44T | 802 | 0.24 | 1.20 | 600 | 18 x 21.5 | 75 |
| 450 Vdc | | | | | | | |
| 2.2 | AEB225M2WJ32T | 69 | 0.24 | 11.00 | 29 | 10 x 13.5 | 250 |
| 3.3 | AEB335M2WK32T | 99 | 0.24 | 7.00 | 41 | 10 x 16.5 | 200 |
| 4.7 | AEB475M2WL32T | 137 | 0.24 | 4.80 | 49 | 12.5 x 16.5 | 150 |
| 10.0 | AEB106M2WR44T | 280 | 0.24 | 3.00 | 310 | 18 x 16.5 | 125 |
| 22.0 | AEB226M2WS44T | 604 | 0.24 | 1.80 | 560 | 18 x 21.5 | 75 |

Part Numbering System

| | | | | | |
|-------------|--|----------------------------------|---|----------------------|--|
| AEB | 106 | M | 2C | 2J | 32T |
| | | | | | |
| Type | Capacitance | Capacitance Tolerance | Voltage Code | Case Code | Packaging Information |
| | 105 = 1.0 μ F 106 = 10.0 μ F 107 = 100.0 μ F | M = \pm 20% | 2C = 160 Vdc 2V = 350 Vdc 2D = 200 Vdc 2G = 400 Vdc 2E = 250 Vdc 2W = 450 Vdc | | 32 = Carrier tape Width (mm) T = Tape & Reel B = bulk |

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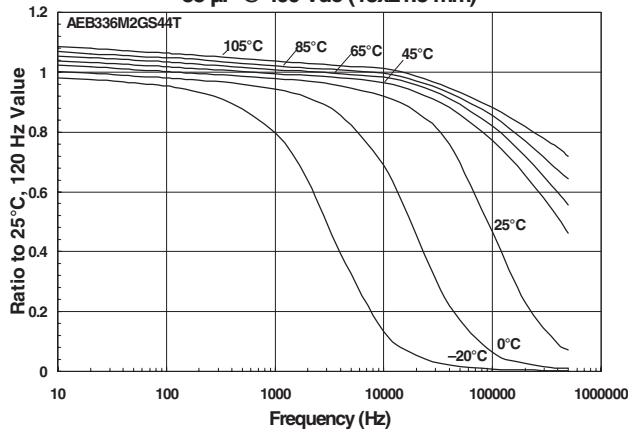
Typical Performance Curves



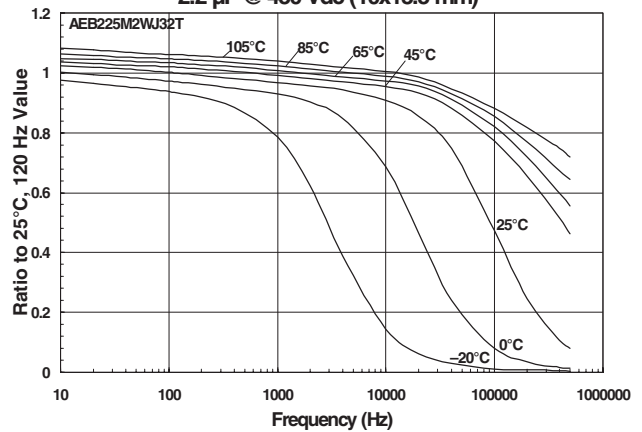
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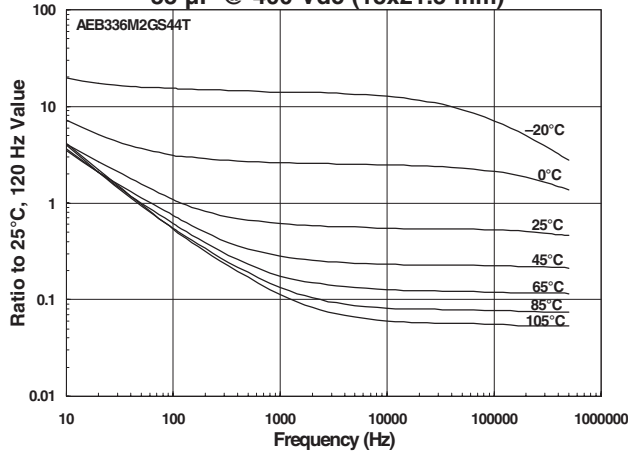
Capacitance vs Temperature & Frequency
33 μ F @ 400 Vdc (18x21.5 mm)



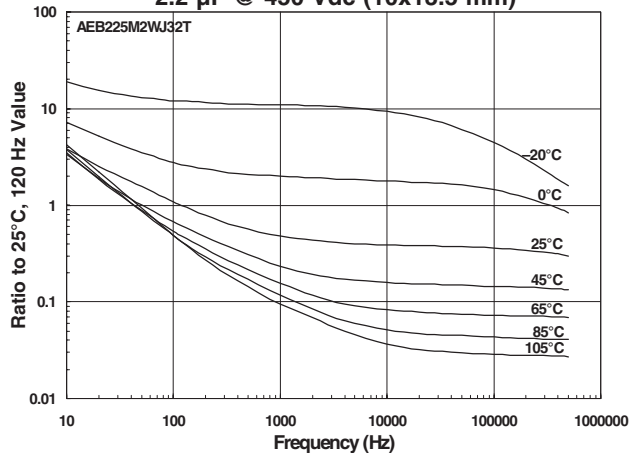
Capacitance vs Temperature & Frequency
2.2 μ F @ 450 Vdc (10x13.5 mm)



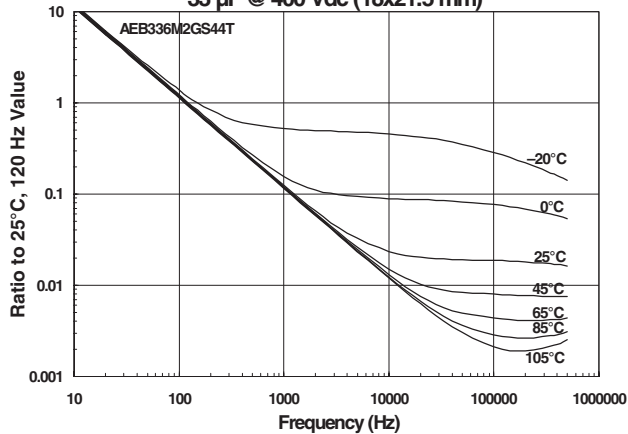
ESR vs Temperature and Frequency
33 μ F @ 400 Vdc (18x21.5 mm)



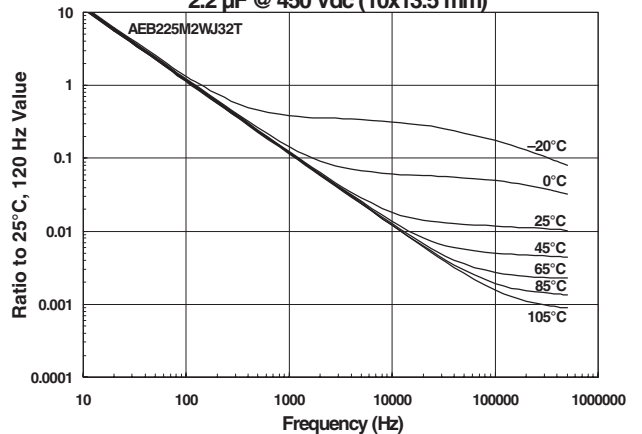
ESR vs Temperature and Frequency
2.2 μ F @ 450 Vdc (10x13.5 mm)



Impedance vs Temperature and Frequency
33 μ F @ 400 Vdc (18x21.5 mm)



Impedance vs Temperature and Frequency
2.2 μ F @ 450 Vdc (10x13.5 mm)



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