

# High Current Feedthru Capacitors



## AEC-Q200 Qualified W2H Series

### GENERAL DESCRIPTION

High current feedthru capacitors are designed as a broad-band EMI filter that is specially designed to have high current handling capability. These SMT feedthru filters offer an optimized frequency response with high attenuation across a wide RF spectrum due to optimized parallel and series inductances. These W2H feedthru filters can actually replace discrete L/C filter networks.

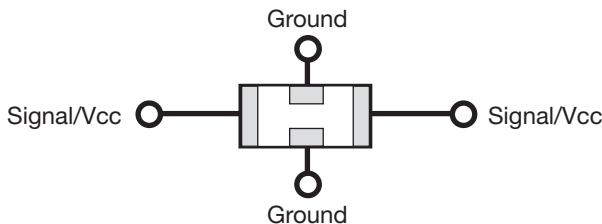
### FEATURES

- Low parallel inductance provides significant noise reduction in circuits with operating frequencies up to 5GHz
- Broad frequency response with high attenuation
- High rated current – up to 2A for 080
- Small size – 0805
- Reeling in accordance with EIA-481

### HOW TO ORDER

| W2H1              | 5        | C          | 473              | 8                     | A              | T                  | 3                          | A                         |
|-------------------|----------|------------|------------------|-----------------------|----------------|--------------------|----------------------------|---------------------------|
| Size & Style      | Voltage  | Dielectric | Capacitance Code | Capacitance Tolerance | Failure Rate   | Terminations       | Packaging Code (Reel Size) | Quantity Code (Pcs./Reel) |
| W2H1 = 0805 Ni-Sn | 3 = 25v  | A = NP0    |                  | 8 = +50/-20%          | 4 = Automotive | T = Plated Ni & Sn | 1 & 2 = 7" Reel            | F = 1,000                 |
| L2H1 = 0805 SnPb  | 5 = 50v  | C = X7R    |                  | M = $\pm 20\%$        |                | B = Plated SnPb    | Embossed Tape              | A = 2,000,                |
|                   | 1 = 100v |            |                  |                       |                |                    | 3 & 4 = 13" Reel           | 4,000 or                  |
|                   |          |            |                  |                       |                |                    | Embossed Tape              | 10,000                    |

### PINOUT CONFIGURATION



W2H1 – 0805 Style

### MECHANICAL CHARACTERISTICS

- Available in EIA 0805
- Plated Tin over Nickel Barrier
- Packaged in Tape & Reel

### TYPICAL APPLICATIONS

- High current power (Vcc) lines
- PA decoupling
- DC:DC converters
- Regulators
- Power supervisory circuits



# High Current Feedthru Capacitors



## AEC-Q200 Qualified W2H Series

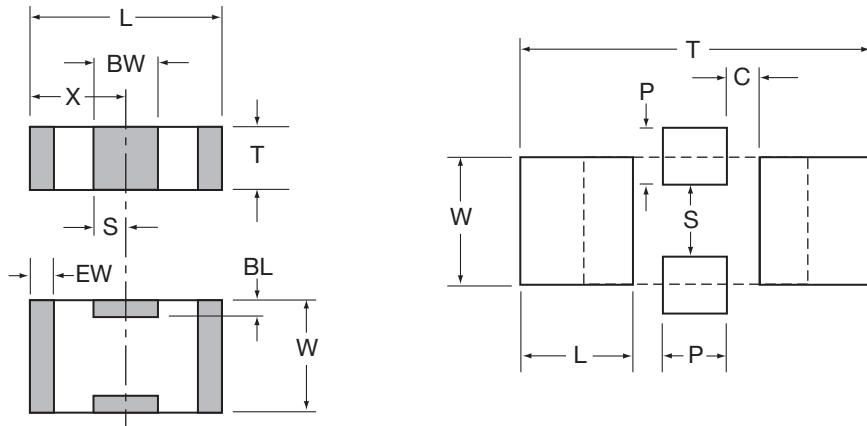
### ELECTRICAL PARAMETERS

|                       |                 |
|-----------------------|-----------------|
| Insulation Resistance | 1000 MΩ Minimum |
| DC Resistance         | <0.150 Ω        |
| Operating Temperature | -55C to +125C   |

### CAPACITOR VALUES

| Part Number    | Size | Dielectric | Capacitance | Tolerance  | Voltage | Current |
|----------------|------|------------|-------------|------------|---------|---------|
| W2H13C 104 84T | 0805 | X7R        | 100,000pF   | +50%, -20% | 25V     | 2A      |
| W2H15C 473 84T | 0805 | X7R        | 47,000pF    | +50%, -20% | 50V     | 2A      |
| W2H15C 223 84T | 0805 | X7R        | 22,000pF    | +50%, -20% | 50V     | 1A      |
| W2H15C 103 84T | 0805 | X7R        | 10,000pF    | +50%, -20% | 50V     | 1A      |
| W2H15C 102 84T | 0805 | X7R        | 1,000pF     | +50%, -20% | 50V     | 1A      |
| W2H11A 471 84T | 0805 | NP0        | 470pF       | +50%, -20% | 100V    | 0.5A    |
| W2H11A 221 84T | 0805 | NP0        | 220pF       | +50%, -20% | 100V    | 0.5A    |
| W2H11A 101 84T | 0805 | NP0        | 100pF       | +50%, -20% | 100V    | 0.5A    |
| W2H11A 470 84T | 0805 | NP0        | 47pF        | +50%, -20% | 100V    | 0.5A    |
| W2H11A 220 84T | 0805 | NP0        | 22pF        | +50%, -20% | 100V    | 0.5A    |

### PHYSICAL DIMENSIONS AND PAD LAYOUT



W2H1 – 0805 Style

### PHYSICAL DIMENSIONS

|                     | L                           | W                           | T                      | BW                          | BL                                       | ES | EW                          | X                           | S                           |
|---------------------|-----------------------------|-----------------------------|------------------------|-----------------------------|--|----|-----------------------------|-----------------------------|-----------------------------|
| W2H1- 0805 MM (in.) | 2.01 ± 0.20 (0.079 ± 0.008) | 1.25 ± 0.20 (0.049 ± 0.008) | 1.14 Max. (0.045 Max.) | 0.46 ± 0.10 (0.018 ± 0.004) | 0.18 + 0.25 -0.08 (0.007 + 0.010 -0.003) | NA | 0.25 ± 0.13 (0.010 ± 0.005) | 1.02 ± 0.10 (0.040 ± 0.004) | 0.23 ± 0.05 (0.009 ± 0.002) |

### PAD DIMENSIONS

|                     | T            | P            | S            | W            | L            | C            | X  |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|----|
| W2H1- 0805 MM (in.) | 3.45 (0.136) | 0.51 (0.020) | 0.76 (0.030) | 1.27 (0.050) | 1.02 (0.040) | 0.46 (0.018) | NA |