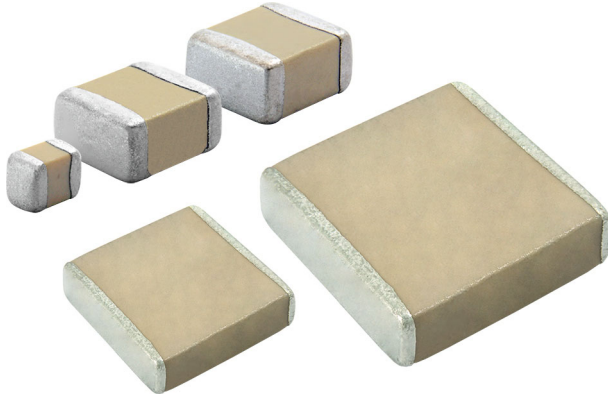


## Surface Mount Multilayer Ceramic Capacitors for RF Power Applications



### FEATURES

- Case size 0505 and 1111 and 2525
- Ultra-stable, high Q dielectric material
- Lead (Pb)-free terminations code “X”
- Tin/lead termination code “L”
- Reliable Noble Metal Electrode (NME) system
- High frequency
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://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.

### APPLICATIONS

- MRI coils and generators
- RF instruments
- Lasers, CATV, UHF/microwave RF power amplifiers
- Filter networks, timing circuits
- Mixers, oscillators impedance matching networks

### ELECTRICAL SPECIFICATIONS

#### Note

- Electrical characteristics at 25 °C unless otherwise specified

**Operating Temperature:** -55 °C to +125 °C

#### Capacitance Range:

0505: 1.0 pF to 100 pF  
 1111: 1.0 pF to 1000 pF  
 2525: 1.0 pF to 2700 pF

#### Voltage Rating:

0505: 200 V<sub>DC</sub> to 250 V<sub>DC</sub>  
 1111: 300 V<sub>DC</sub> to 1500 V<sub>DC</sub>  
 2525: 300 V<sub>DC</sub> to 3600 V<sub>DC</sub>

#### Temperature Coefficient of Capacitance (TCC):

C0G (D): 0 ppm/°C ± 30 ppm/°C from -55 °C to +125 °C with zero (0) V<sub>DC</sub> applied

#### Dissipation Factor (DF):

C0G (D): 0.05 % max. at 1.0 V<sub>RMS</sub> and 1 MHz  
 for values ≤ 1000 pF  
 C0G (D): 0.05 % max. at 1.0 V<sub>RMS</sub> and 1 kHz  
 for values > 1000 pF

**Aging Rate:** 0 % maximum per decade

#### Insulation Resistance (IR):

At +25 °C and rated voltage 100 000 MΩ minimum or 1000 ΩF, whichever is less  
 At +125 °C and rated voltage 10 000 MΩ minimum or 100 ΩF, whichever is less

#### Dielectric Strength Test:

Performed per method 103 of EIA-198-2-E.

Applied test voltages:

≤ 250 V<sub>DC</sub>-rated: Min. 250 % of rated voltage  
 300 V<sub>DC</sub>-rated: Min. 150 % of rated voltage  
 630 V<sub>DC</sub>- to 1000 V<sub>DC</sub>-rated: 150 % of rated voltage  
 1500 V<sub>DC</sub> and up: 120 % rated voltage



| QUICK REFERENCE DATA |      |                     |             |         |
|----------------------|------|---------------------|-------------|---------|
| DIELECTRIC           | CASE | MAXIMUM VOLTAGE (V) | CAPACITANCE |         |
|                      |      |                     | MINIMUM     | MAXIMUM |
| D = NP0              | 0505 | 250                 | 1.0 pF      | 100 pF  |
|                      | 1111 | 1500                | 1.0 pF      | 1000 pF |
|                      | 2525 | 3600                | 1.0 pF      | 2700 pF |

**Notes**

- For values below 1.0 pF and tolerance  $\pm 0.05$  pF, contact [mlcc@vishay.com](mailto:mlcc@vishay.com)  
Detail ratings see "Selection Chart"

**ORDERING INFORMATION**

| VJ0505               | D          | 1R0   | B  | X  | C  | A              | C  |
|----------------------|------------|---|--|--|--|----------------|--|
| CASE CODE            | DIELECTRIC | CAPACITANCE NOMINAL CODE  | CAPACITANCE TOLERANCE  | TERMINATION  | DC VOLTAGE RATING (1)  | MARKING        | PACKAGING  |
| 0505<br>1111<br>2525 | D = HIFREQ | Expressed in picofarads (pF). The first two digits are significant, the third is a multiplier. An "R" indicates a decimal point. Examples: 1R0 = 1.0 pF | B = $\pm 0.10$ pF<br>C = $\pm 0.25$ pF<br>D = $\pm 0.50$ pF<br>F = $\pm 1$ %<br>G = $\pm 2$ %<br>J = $\pm 5$ %<br>K = $\pm 10$ %<br>M = $\pm 20$ %<br><br><b>Note</b><br>Details see "Selection Chart" | X = Ni barrier<br>100 % tin plate<br>matte finish<br>L = Ni barrier<br>with tin lead<br>plated finish<br>min. 4 % lead | C = 200 V<br>P = 250 V<br>D = 300 V<br>E = 500 V<br>L = 630 V<br>I = 800 V<br>G = 1000 V<br>R = 1500 V<br>F = 2000 V<br>O = 2500 V<br>H = 3000 V<br>W = 3600 V | A = No marking | T = 7" reel/plastic tape<br>C = 7" reel/paper tape<br>J = 7" reel (low quantity)<br>R = 11 1/4"/13" reel/<br>plastic tape<br>P = 11 1/4"/13" reel/<br>paper tape |

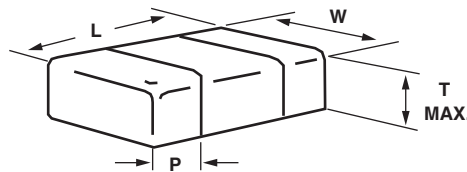
**Note**

- (1) DC voltage rating should not be exceeded in application

**ENVIRONMENTAL STATUS**

| TERMINATION CODE | TERMINATION DESCRIPTION                              | RoHS COMPLIANT | VISHAY GREEN |
|------------------|--|----------------|--------------|
| X                | Ni barrier 100 % tin plated matte finish             | Yes            | Yes          |
| L                | Ni barrier with tin lead plated finish min. 4 % lead | No             | No           |

**DIMENSIONS** in inches (millimeters)



| CASE CODE | STYLE  | LENGTH (L)                                      | WIDTH (W)                               | MAXIMUM THICKNESS (T) | TERMINATIONS PAD (P) |                 |
|-----------|--------|---|---|-----------------------|----------------------|-----------------|
|           |        |   |   |                       | MINIMUM              | MAXIMUM         |
| 0505      | VJ0505 | 0.055 $\pm$ 0.025<br>(1.40 $\pm$ 0.64)          | 0.055 $\pm$ 0.015<br>(1.40 $\pm$ 0.38)  | 0.057<br>(1.45)       | 0.004<br>(0.10)      | 0.016<br>(0.41) |
| 1111      | VJ1111 | 0.117 $\pm$ 0.028<br>(2.98 $\pm$ 0.70)          | 0.110 $\pm$ 0.030<br>(2.79 $\pm$ 0.76)  | 0.102<br>(2.59)       | 0.012<br>(0.30)      | 0.018<br>(0.46) |
| 2525      | VJ2525 | 0.250 + 0.020/- 0.030<br>(6.35 + 0.508/- 0.762) | 0.250 $\pm$ 0.015<br>(6.35 $\pm$ 0.381) | 0.102<br>(2.59)       | 0.010<br>(0.25)      | 0.030<br>(0.76) |



| SELECTION CHART            |        |         |     |               |
|----------------------------|--------|---------|-----|---------------|
| DIELECTRIC (VISHAY CODE)   |        | C0G (D) |     |               |
| STYLE                      |        | VJ0505  |     | TOLERANCE     |
| CASE CODE                  |        | 0505    |     |               |
| VOLTAGE (V <sub>DC</sub> ) |        | 200     | 250 |               |
| VOLTAGE CODE               |        | C       | P   |               |
| CAP. CODE                  | CAP.   |         |     |               |
| 1R0                        | 1.0 pF | •       | •   | B, C, D       |
| 1R1                        | 1.1 pF | •       | •   | B, C, D       |
| 1R2                        | 1.2 pF | •       | •   | B, C, D       |
| 1R3                        | 1.3 pF | •       | •   | B, C, D       |
| 1R4                        | 1.4 pF | •       | •   | B, C, D       |
| 1R5                        | 1.5 pF | •       | •   | B, C, D       |
| 1R6                        | 1.6 pF | •       | •   | B, C, D       |
| 1R7                        | 1.7 pF | •       | •   | B, C, D       |
| 1R8                        | 1.8 pF | •       | •   | B, C, D       |
| 1R9                        | 1.9 pF | •       | •   | B, C, D       |
| 2R0                        | 2.0 pF | •       | •   | B, C, D       |
| 2R1                        | 2.1 pF | •       | •   | B, C, D       |
| 2R2                        | 2.2 pF | •       | •   | B, C, D       |
| 2R4                        | 2.4 pF | •       | •   | B, C, D       |
| 2R7                        | 2.7 pF | •       | •   | B, C, D       |
| 3R0                        | 3.0 pF | •       | •   | B, C, D       |
| 3R3                        | 3.3 pF | •       | •   | B, C, D       |
| 3R6                        | 3.6 pF | •       | •   | B, C, D       |
| 3R9                        | 3.9 pF | •       | •   | B, C, D       |
| 4R3                        | 4.3 pF | •       | •   | B, C, D       |
| 4R7                        | 4.7 pF | •       | •   | B, C, D       |
| 5R1                        | 5.1 pF | •       | •   | B, C, D       |
| 5R6                        | 5.6 pF | •       | •   | B, C, D       |
| 6R2                        | 6.2 pF | •       | •   | B, C, D       |
| 6R8                        | 6.8 pF | •       | •   | B, C, D       |
| 7R5                        | 7.5 pF | •       | •   | B, C, D       |
| 8R2                        | 8.2 pF | •       | •   | B, C, D       |
| 9R1                        | 9.1 pF | •       | •   | B, C, D       |
| 100                        | 10 pF  | •       | •   | F, G, J, K, M |
| 110                        | 11 pF  | •       | •   | F, G, J, K, M |
| 120                        | 12 pF  | •       | •   | F, G, J, K, M |
| 130                        | 13 pF  | •       | •   | F, G, J, K, M |
| 150                        | 15 pF  | •       | •   | F, G, J, K, M |
| 180                        | 18 pF  | •       | •   | F, G, J, K, M |
| 200                        | 20 pF  | •       | •   | F, G, J, K, M |
| 220                        | 22 pF  | •       | •   | F, G, J, K, M |
| 240                        | 24 pF  | •       | •   | F, G, J, K, M |
| 270                        | 27 pF  | •       | •   | F, G, J, K, M |
| 300                        | 30 pF  | •       | •   | F, G, J, K, M |
| 330                        | 33 pF  | •       | •   | F, G, J, K, M |
| 360                        | 36 pF  | •       | •   | F, G, J, K, M |
| 390                        | 39 pF  | •       | •   | F, G, J, K, M |
| 430                        | 43 pF  | •       | •   | F, G, J, K, M |
| 470                        | 47 pF  | •       | •   | F, G, J, K, M |
| 510                        | 51 pF  | •       | •   | F, G, J, K, M |
| 560                        | 56 pF  | •       | •   | F, G, J, K, M |
| 620                        | 62 pF  | •       |     | F, G, J, K, M |
| 680                        | 68 pF  | •       |     | F, G, J, K, M |
| 750                        | 75 pF  | •       |     | F, G, J, K, M |
| 820                        | 82 pF  | •       |     | F, G, J, K, M |
| 910                        | 91 pF  | •       |     | F, G, J, K, M |
| 101                        | 100 pF | •       |     | F, G, J, K, M |

**Notes**

- RoHS-compliant except when supplied with lead (Pb)-containing termination, code "L"
- Plastic carrier tape



| SELECTION CHART            |        |         |     |      |      |               |
|----------------------------|--------|---------|-----|------|------|---------------|
| DIELECTRIC (VISHAY CODE)   |        | COG (D) |     |      |      | TOLERANCE     |
| STYLE                      |        | VJ1111  |     |      |      |               |
| CASE CODE                  |        | 1111    |     |      |      |               |
| VOLTAGE (V <sub>DC</sub> ) |        | 300     | 630 | 1000 | 1500 |               |
| VOLTAGE CODE               |        | D       | L   | G    | R    |               |
| CAP. CODE                  | CAP.   |         |     |      |      |               |
| 1R0                        | 1.0 pF | •       | •   | •    | •    | B, C, D       |
| 1R1                        | 1.1 pF | •       | •   | •    | •    | B, C, D       |
| 1R2                        | 1.2 pF | •       | •   | •    | •    | B, C, D       |
| 1R3                        | 1.3 pF | •       | •   | •    | •    | B, C, D       |
| 1R4                        | 1.4 pF | •       | •   | •    | •    | B, C, D       |
| 1R5                        | 1.5 pF | •       | •   | •    | •    | B, C, D       |
| 1R6                        | 1.6 pF | •       | •   | •    | •    | B, C, D       |
| 1R7                        | 1.7 pF | •       | •   | •    | •    | B, C, D       |
| 1R8                        | 1.8 pF | •       | •   | •    | •    | B, C, D       |
| 1R9                        | 1.9 pF | •       | •   | •    | •    | B, C, D       |
| 2R0                        | 2.0 pF | •       | •   | •    | •    | B, C, D       |
| 2R1                        | 2.1 pF | •       | •   | •    | •    | B, C, D       |
| 2R2                        | 2.2 pF | •       | •   | •    | •    | B, C, D       |
| 2R4                        | 2.4 pF | •       | •   | •    | •    | B, C, D       |
| 2R7                        | 2.7 pF | •       | •   | •    | •    | B, C, D       |
| 3R0                        | 3.0 pF | •       | •   | •    | •    | B, C, D       |
| 3R3                        | 3.3 pF | •       | •   | •    | •    | B, C, D       |
| 3R6                        | 3.6 pF | •       | •   | •    | •    | B, C, D       |
| 3R9                        | 3.9 pF | •       | •   | •    | •    | B, C, D       |
| 4R3                        | 4.3 pF | •       | •   | •    | •    | B, C, D       |
| 4R7                        | 4.7 pF | •       | •   | •    | •    | B, C, D       |
| 5R1                        | 5.1 pF | •       | •   | •    | •    | B, C, D       |
| 5R6                        | 5.6 pF | •       | •   | •    | •    | B, C, D       |
| 6R2                        | 6.2 pF | •       | •   | •    | •    | B, C, D       |
| 6R8                        | 6.8 pF | •       | •   | •    | •    | B, C, D       |
| 7R5                        | 7.5 pF | •       | •   | •    | •    | B, C, D       |
| 8R2                        | 8.2 pF | •       | •   | •    | •    | B, C, D       |
| 9R1                        | 9.1 pF | •       | •   | •    | •    | B, C, D       |
| 100                        | 10 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 110                        | 11 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 120                        | 12 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 130                        | 13 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 150                        | 15 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 180                        | 18 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 200                        | 20 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 220                        | 22 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 240                        | 24 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 270                        | 27 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 300                        | 30 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 330                        | 33 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 360                        | 36 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 390                        | 39 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 430                        | 43 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 470                        | 47 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 510                        | 51 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 560                        | 56 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 620                        | 62 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 680                        | 68 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 750                        | 75 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 820                        | 82 pF  | •       | •   | •    | •    | F, G, J, K, M |
| 910                        | 91 pF  | •       | •   | •    | •    | F, G, J, K, M |

Notes

- RoHS-compliant except when supplied with lead (Pb)-containing termination, code "L"
- Plastic carrier tape



| SELECTION CHART            |        |         |     |      |      |               |
|----------------------------|--------|---------|-----|------|------|---------------|
| DIELECTRIC (VISHAY CODE)   |        | COG (D) |     |      |      | TOLERANCE     |
| STYLE                      |        | VJ1111  |     |      |      |               |
| CASE CODE                  |        | 1111    |     |      |      |               |
| VOLTAGE (V <sub>DC</sub> ) |        | 300     | 630 | 1000 | 1500 |               |
| VOLTAGE CODE               |        | D       | L   | G    | R    |               |
| CAP. CODE                  | CAP.   |         |     |      |      |               |
| 101                        | 100 pF | •       | •   | •    | •    | F, G, J, K, M |
| 111                        | 110 pF | •       | •   | •    | •    | F, G, J, K, M |
| 121                        | 120 pF | •       | •   | •    |      | F, G, J, K, M |
| 131                        | 130 pF | •       | •   | •    |      | F, G, J, K, M |
| 151                        | 150 pF | •       | •   | •    |      | F, G, J, K, M |
| 181                        | 180 pF | •       | •   | •    |      | F, G, J, K, M |
| 201                        | 200 pF | •       | •   |      |      | F, G, J, K, M |
| 221                        | 220 pF | •       | •   |      |      | F, G, J, K, M |
| 241                        | 240 pF | •       | •   |      |      | F, G, J, K, M |
| 301                        | 300 pF | •       | •   |      |      | F, G, J, K, M |
| 331                        | 330 pF | •       | •   |      |      | F, G, J, K, M |
| 361                        | 360 pF | •       | •   |      |      | F, G, J, K, M |
| 391                        | 390 pF | •       | •   |      |      | F, G, J, K, M |
| 431                        | 430 pF | •       | •   |      |      | F, G, J, K, M |
| 471                        | 470 pF | •       | •   |      |      | F, G, J, K, M |
| 511                        | 510 pF | •       |     |      |      | F, G, J, K, M |
| 561                        | 560 pF | •       |     |      |      | F, G, J, K, M |
| 621                        | 620 pF | •       |     |      |      | F, G, J, K, M |
| 681                        | 680 pF | •       |     |      |      | F, G, J, K, M |
| 751                        | 750 pF | •       |     |      |      | F, G, J, K, M |
| 821                        | 820 pF | •       |     |      |      | F, G, J, K, M |
| 911                        | 910 pF | •       |     |      |      | F, G, J, K, M |
| 102                        | 1.0 nF | •       |     |      |      | F, G, J, K, M |
| 112                        | 1.1 nF |         |     |      |      |               |
| 122                        | 1.2 nF |         |     |      |      |               |
| 132                        | 1.3 nF |         |     |      |      |               |
| 152                        | 1.5 nF |         |     |      |      |               |
| 182                        | 1.8 nF |         |     |      |      |               |

Notes

- RoHS-compliant except when supplied with lead (Pb)-containing termination, code "L"
- Plastic carrier tape



| SELECTION CHART            |        |         |     |     |      |      |      |      |      |      |               |
|----------------------------|--------|---------|-----|-----|------|------|------|------|------|------|---------------|
| DIELECTRIC (VISHAY CODE)   |        | C0G (D) |     |     |      |      |      |      |      |      | TOLERANCE     |
| STYLE                      |        | VJ2525  |     |     |      |      |      |      |      |      |               |
| CASE CODE                  |        | 2525    |     |     |      |      |      |      |      |      |               |
| VOLTAGE (V <sub>DC</sub> ) |        | 300     | 500 | 800 | 1000 | 1500 | 2000 | 2500 | 3000 | 3600 |               |
| VOLTAGE CODE               |        | D       | E   | I   | G    | R    | F    | O    | H    | W    |               |
| CAP. CODE                  | CAP.   |         |     |     |      |      |      |      |      |      |               |
| 1R0                        | 1.0 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 1R1                        | 1.1 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 1R2                        | 1.2 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 1R3                        | 1.3 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 1R4                        | 1.4 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 1R5                        | 1.5 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 1R6                        | 1.6 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 1R7                        | 1.7 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 1R8                        | 1.8 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 1R9                        | 1.9 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 2R0                        | 2.0 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 2R1                        | 2.1 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 2R2                        | 2.2 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 2R4                        | 2.4 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 2R7                        | 2.7 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 3R0                        | 3.0 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 3R3                        | 3.3 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 3R6                        | 3.6 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 3R9                        | 3.9 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 4R3                        | 4.3 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 4R7                        | 4.7 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 5R1                        | 5.1 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 5R6                        | 5.6 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 6R2                        | 6.2 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 6R8                        | 6.8 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 7R5                        | 7.5 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 8R2                        | 8.2 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 9R1                        | 9.1 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | B, C, D       |
| 100                        | 10 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 110                        | 11 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 120                        | 12 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 130                        | 13 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 150                        | 15 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 160                        | 16 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 180                        | 18 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 200                        | 20 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 220                        | 22 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 240                        | 24 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 270                        | 27 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 300                        | 30 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 330                        | 33 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 360                        | 36 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 390                        | 39 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 430                        | 43 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 470                        | 47 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 510                        | 51 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 560                        | 56 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 620                        | 62 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 680                        | 68 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 750                        | 75 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 820                        | 82 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 910                        | 91 pF  | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |

Notes

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- Plastic carrier tape
- For tolerance B contact [mlccrf@vishay.com](mailto:mlccrf@vishay.com)



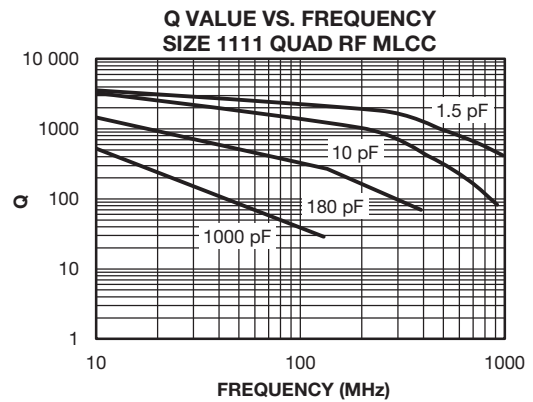
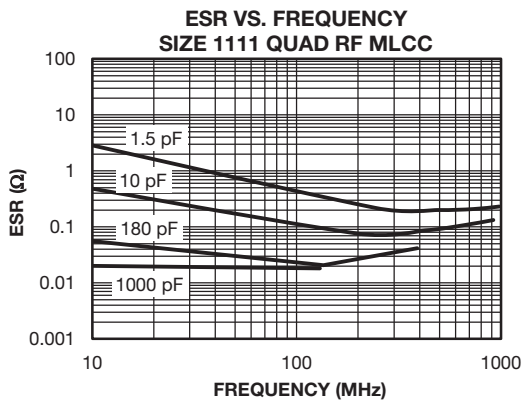
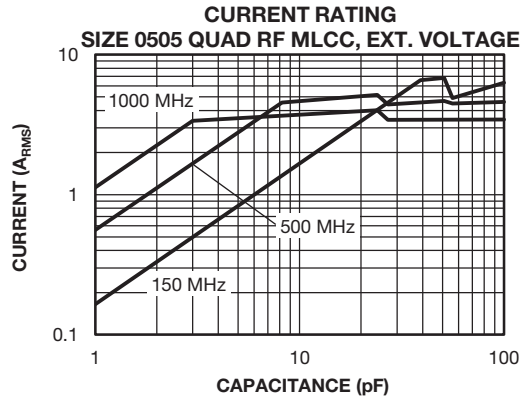
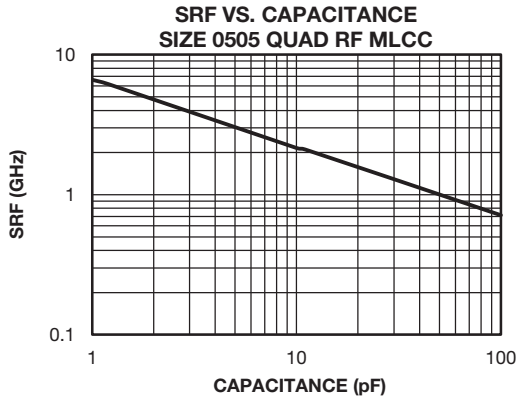
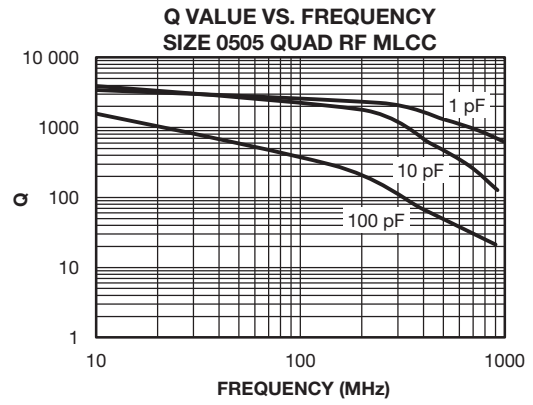
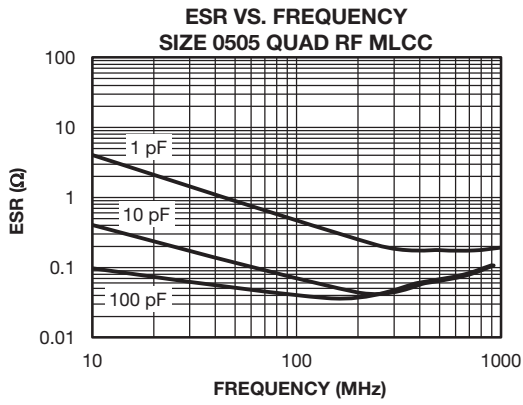
| SELECTION CHART            |        |         |     |     |      |      |      |      |      |      |               |
|----------------------------|--------|---------|-----|-----|------|------|------|------|------|------|---------------|
| DIELECTRIC (VISHAY CODE)   |        | COG (D) |     |     |      |      |      |      |      |      | TOLERANCE     |
| STYLE                      |        | VJ2525  |     |     |      |      |      |      |      |      |               |
| CASE CODE                  |        | 2525    |     |     |      |      |      |      |      |      |               |
| VOLTAGE (V <sub>DC</sub> ) |        | 300     | 500 | 800 | 1000 | 1500 | 2000 | 2500 | 3000 | 3600 |               |
| VOLTAGE CODE               |        | D       | E   | I   | G    | R    | F    | O    | H    | W    |               |
| CAP. CODE                  | CAP.   |         |     |     |      |      |      |      |      |      |               |
| 101                        | 100 pF | •       | •   | •   | •    | •    | •    | •    | •    | •    | F, G, J, K, M |
| 111                        | 110 pF | •       | •   | •   | •    | •    | •    | •    | •    |      | F, G, J, K, M |
| 121                        | 120 pF | •       | •   | •   | •    | •    | •    | •    | •    |      | F, G, J, K, M |
| 131                        | 130 pF | •       | •   | •   | •    | •    | •    | •    | •    |      | F, G, J, K, M |
| 151                        | 150 pF | •       | •   | •   | •    | •    | •    | •    | •    |      | F, G, J, K, M |
| 161                        | 160 pF | •       | •   | •   | •    | •    | •    | •    | •    |      | F, G, J, K, M |
| 181                        | 180 pF | •       | •   | •   | •    | •    | •    | •    | •    |      | F, G, J, K, M |
| 201                        | 200 pF | •       | •   | •   | •    | •    | •    | •    | •    |      | F, G, J, K, M |
| 221                        | 220 pF | •       | •   | •   | •    | •    | •    | •    | •    |      | F, G, J, K, M |
| 241                        | 240 pF | •       | •   | •   | •    | •    | •    | •    | •    |      | F, G, J, K, M |
| 271                        | 270 pF | •       | •   | •   | •    | •    | •    | •    | •    |      | F, G, J, K, M |
| 301                        | 300 pF | •       | •   | •   | •    | •    | •    |      |      |      | F, G, J, K, M |
| 331                        | 330 pF | •       | •   | •   | •    | •    | •    |      |      |      | F, G, J, K, M |
| 361                        | 360 pF | •       | •   | •   | •    | •    | •    |      |      |      | F, G, J, K, M |
| 391                        | 390 pF | •       | •   | •   | •    | •    | •    |      |      |      | F, G, J, K, M |
| 431                        | 430 pF | •       | •   | •   | •    | •    | •    |      |      |      | F, G, J, K, M |
| 471                        | 470 pF | •       | •   | •   | •    | •    | •    |      |      |      | F, G, J, K, M |
| 511                        | 510 pF | •       | •   | •   | •    | •    |      |      |      |      | F, G, J, K, M |
| 561                        | 560 pF | •       | •   | •   | •    | •    |      |      |      |      | F, G, J, K, M |
| 621                        | 620 pF | •       | •   | •   | •    | •    |      |      |      |      | F, G, J, K, M |
| 681                        | 680 pF | •       | •   | •   | •    | •    |      |      |      |      | F, G, J, K, M |
| 751                        | 750 pF | •       | •   | •   | •    | •    |      |      |      |      | F, G, J, K, M |
| 821                        | 820 pF | •       | •   | •   | •    | •    |      |      |      |      | F, G, J, K, M |
| 911                        | 910 pF | •       | •   | •   | •    | •    |      |      |      |      | F, G, J, K, M |
| 102                        | 1.0 nF | •       | •   | •   | •    | •    |      |      |      |      | F, G, J, K, M |
| 112                        | 1.1 nF | •       | •   | •   | •    | •    |      |      |      |      | F, G, J, K, M |
| 122                        | 1.2 nF | •       | •   | •   | •    | •    |      |      |      |      | F, G, J, K, M |
| 152                        | 1.5 nF | •       | •   | •   |      |      |      |      |      |      | F, G, J, K, M |
| 182                        | 1.8 nF | •       | •   | •   |      |      |      |      |      |      | F, G, J, K, M |
| 222                        | 2.0 nF | •       | •   | •   |      |      |      |      |      |      | F, G, J, K, M |
| 242                        | 2.4 nF | •       |     |     |      |      |      |      |      |      | F, G, J, K, M |
| 272                        | 2.7 nF | •       |     |     |      |      |      |      |      |      | F, G, J, K, M |

Notes

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- For tolerance B contact [mlccrf@vishay.com](mailto:mlccrf@vishay.com)



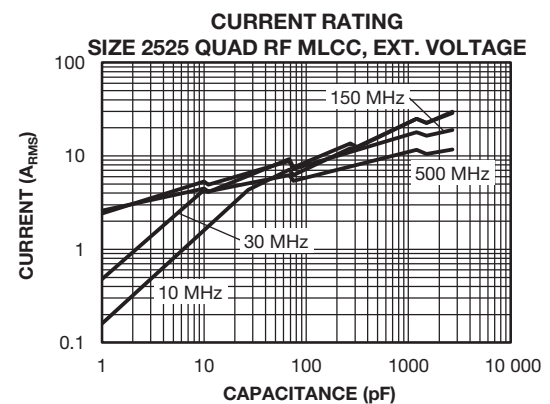
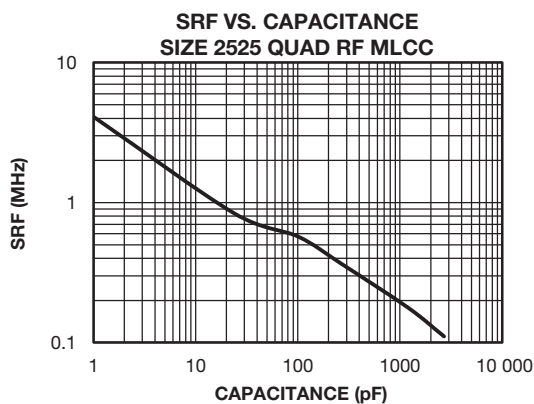
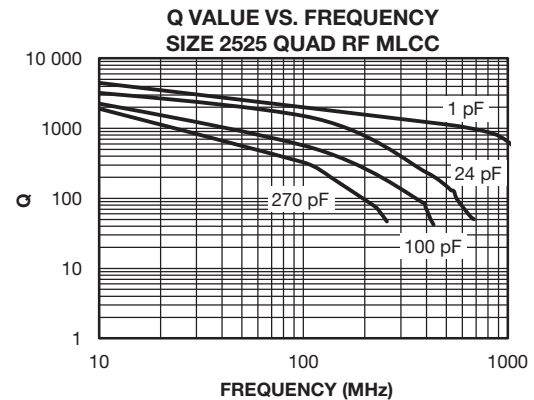
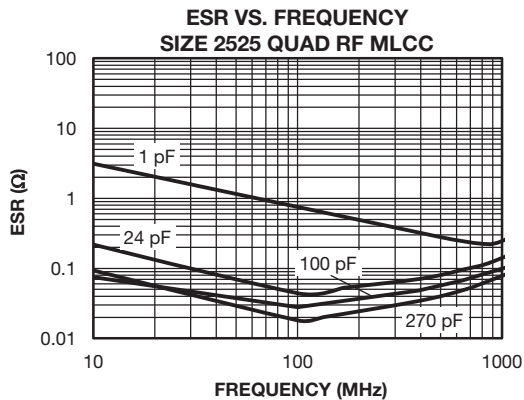
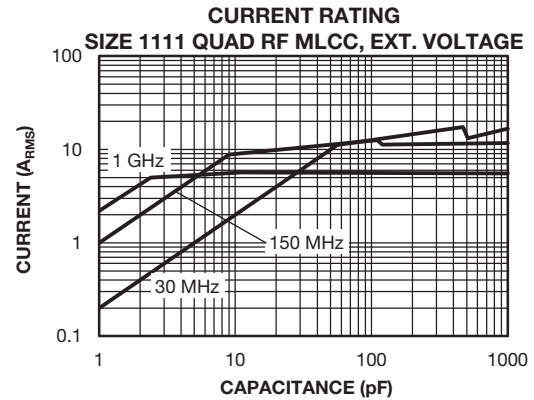
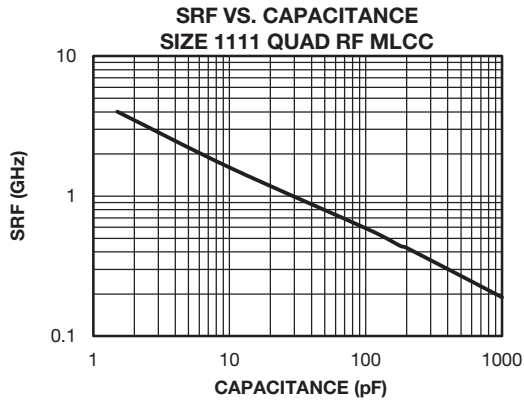
## QUAD HIGH FREQ DIELECTRIC - TYPICAL PARAMETERS





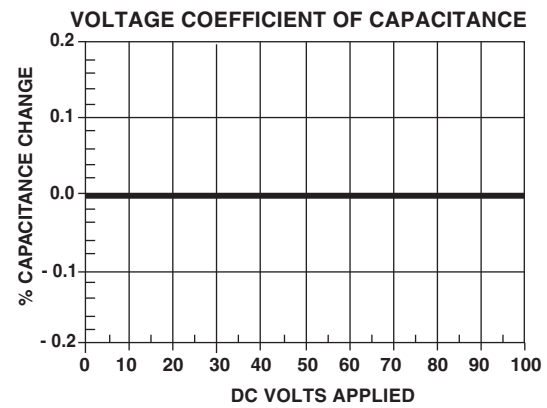
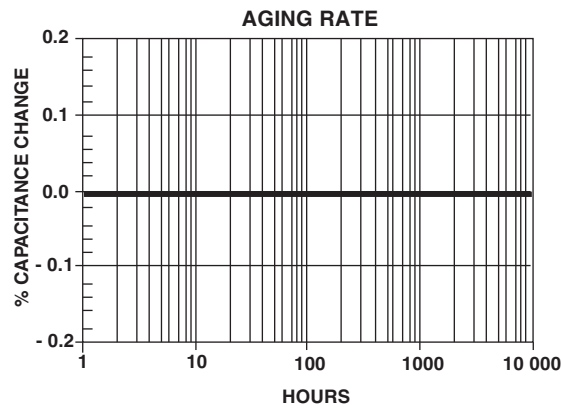
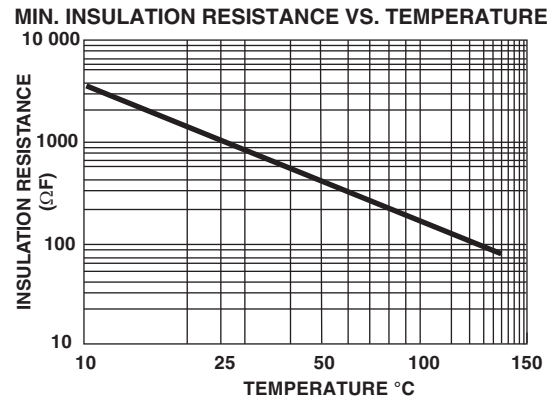
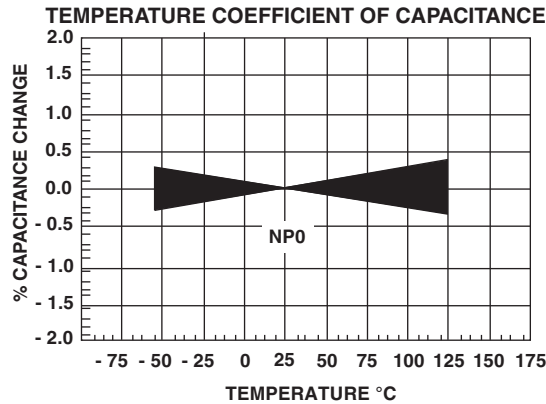


## QUAD HIGH FREQ DIELECTRIC - TYPICAL PARAMETERS





**QUAD HIGH FREQ DIELECTRIC - TYPICAL PARAMETERS**



**STANDARD PACKAGING QUANTITIES (1)(2)(3)**

| CASE CODE | TAPE SIZE | 7" REEL QUANTITIES              |                                 |                      | 11 1/4" AND 13" REEL QUANTITIES |                                 |
|-----------|-----------|---------------------------------|---------------------------------|----------------------|---------------------------------|---------------------------------|
|           |           | PLASTIC TAPE PACKAGING CODE "C" | PLASTIC TAPE PACKAGING CODE "T" | LOW QUANTITY "J" (5) | PAPER TAPE PACKAGING CODE "P"   | PLASTIC TAPE PACKAGING CODE "R" |
| 0505      | 8 mm      | 3000                            | n/a                             | 1000                 | 10 000                          | 10 000                          |
| 1111 (4)  | 8 mm      | n/a                             | 3000                            | 1000                 | 10 000                          | 10 000                          |
| 2525      | 12 mm     | n/a                             | 500                             | n/a                  | n/a                             | 2500                            |

**Notes**

- (1) Vishay Vitramon uses embossed plastic carrier tape.
- (2) REFERENCE: EIA standard RS 481 - "Taping of Surface Mount Components for Automatic Placement"
- (3) n/a = Not available
- (4) Packaging "C"/"P" and "T"/"R" or lower quantities can depend from product thickness.
- (5) Paper/plastic tape used by availability.

**STORAGE AND HANDLING CONDITIONS**

- (1) Store the components at 5 °C to +40 °C ambient temperature and ≤ 70 % relative humidity conditions.
- (2) The product is recommended to be used within a time-frame of 2 years after shipment.  
Check solderability in case extended shelf life beyond the expiry date is needed.

**Precautions:**

- a. Do not store products in an environment containing corrosive elements, especially where chloride gas, sulfide gas, acid, alkali, salt or the like are present. This may cause corrosion or oxidization of the terminations, which can easily lead to poor soldering.
- b. Store products on the shelf and avoid exposure to moisture or dust.
- c. Do not expose products to excessive shock, vibration, direct sunlight and so on.



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**Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.**

**Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.**

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- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
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- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

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