# 150° - 230° Applications

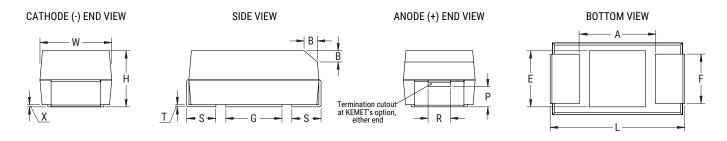


### **Sample Kit Contents**

| KEMET<br>Part Number | Size      | Capacitance | Tolerance | Voltage | Temperature | Dielectric Type | Quantity |
|----------------------|-----------|-------------|-----------|---------|-------------|-----------------|----------|
| T500X227K010AG6110   | X/7343-43 | 220 µF      | 10%       | 10      | 200°C       | MnO2            | 3        |
| T502D106K025AG6110   | D/7343-43 | 10 μF       | 10%       | 25      | 230°C       | MnO2            | 3        |
| C1206H104J3GAC       | 1206/3216 | 0.10 μF     | 5%        | 25      | 200°C       | NP0             | 20       |
| C1210H104J1GAC       | 1210/3225 | 0.10 µF     | 5%        | 100     | 200°C       | NP0             | 20       |
| C0603H103J3GAC       | 0603/1608 | 0.01 µF     | 5%        | 25      | 200°C       | NP0             | 20       |
| C2220H333JCGAC       | 2220/5650 | 0.033 μF    | 5%        | 500     | 200°C       | NP0             | 20       |
| C0402H152J3GAC       | 0402/1005 | 0.0015 μF   | 5%        | 25      | 200°C       | NP0             | 20       |
| C0603R104K5RAC       | 0603/1608 | 0.10 μF     | 10%       | 50      | 175°C       | X7R             | 5        |
| C1812R335K3RAC       | 1812/4532 | 3.3 µF      | 10%       | 25      | 175°C       | X7R             | 20       |
| C1210R105K5RAC       | 1210/3225 | 1 μF        | 10%       | 50      | 175°C       | X7R             | 5        |
| C062H105K5R5GA       | C062      | 1 μF        | 10%       | 50      | 200°C       | X7R             | 5        |
| C052H104K5G5GA       | C052      | 0.10 μF     | 10%       | 50      | 200°C       | NP0             | 5        |
| C052H103K1G5GA       | C052      | 0.01 µF     | 10%       | 100     | 200°C       | NP0             | 5        |
| C1210H104J5GAF       | 1210/3225 | 0.10 μF     | 5%        | 50      | 200°C       | NP0             | 3        |
| C1812H224J5GAF       | 1812/4532 | 0.22 μF     | 5%        | 50      | 200°C       | NP0             | 3        |
| C0603H103J3GAF       | 0603/1608 | 0.01 µF     | 5%        | 25      | 200°C       | NP0             | 20       |
| C0805H103J5GAF       | 0805/2012 | 0.01 μF     | 5%        | 50      | 200°C       | NP0             | 20       |
| F211FM226K050C       | F211      | 22 μF       | 10%       | 50      | 150°C       | Metallized PPS  | 3        |



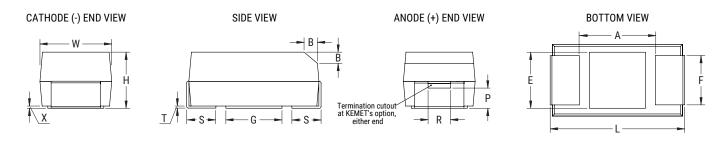
#### **T500 Dimensions - Millimeters (Inches)**



| Case  | Size    | Component                |                               |                          |                |                |                         |                            |                |                |                 |                |                |                |
|-------|---------|--------------------------|-------------------------------|--------------------------|----------------|----------------|-------------------------|----------------------------|----------------|----------------|-----------------|----------------|----------------|----------------|
| KEMET | EIA     | L                        | L W H F±0.1 S<br>±(0.004) ±(0 |                          |                |                | B ±0.15<br>(Ref) ±0.006 | X<br>(Ref)                 | P<br>(Ref)     | R<br>(Ref)     | T<br>(Ref)      | A<br>(Min)     | G<br>(Ref)     | E<br>(Ref)     |
| Х     | 7343-43 | 7.3±0.3<br>(0.287±0.012) | 4.3±0.3<br>(0.169±0.012)      | 4.0±0.3<br>(0.157±0.012) | 2.4<br>(0.095) | 1.3<br>(0.051) | 0.5<br>(0.020)          | 0.10±0.10<br>(0.004±0.004) | 1.7<br>(0.067) | 1.0<br>(0.039) | 0.13<br>(0.005) | 3.8<br>(0.150) | 3.5<br>(0.138) | 3.5<br>(0.138) |

Notes: (Ref) - Dimensions provided for reference only.

### **T502 Dimensions – Millimeters (Inches)**



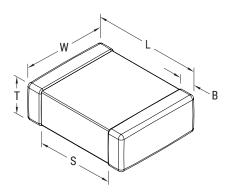
| Case  | Size    |                          | Component                |                          |                          |                                       |                           |                            |                |                |                 |                | Total<br>Weight |
|-------|---------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------------------|---------------------------|----------------------------|----------------|----------------|-----------------|----------------|-----------------|
| KEMET | EIA     | L                        | W                        | Н                        | F                        | S                                     | B (Ref)                   | X (Ref)                    | P<br>(Ref)     | R<br>(Ref)     | T<br>(Ref)      | A<br>(Min)     | (mg)            |
| В     | 3528-21 | 3.5±0.2<br>(0.138±0.008) | 2.8±0.2<br>(0.110±0.008) | 1.9±0.2<br>(0.075±0.008) | 2.2±0.1<br>(0.087±0.004) | 0.80+0.1/-0.3<br>(0.032+0.004/-0.011) | 0.4±0.15<br>(0.016±0.006) | 0.10±0.10<br>(0.004±0.004) | 0.5<br>(0.020) | 1.0<br>(0.039) | 0.13<br>(0.005) | 1.9<br>(0.075) | 63              |
| D     | 7343-31 | 7.3±0.3<br>(0.287±0.012) | 4.3±0.3<br>(0.169±0.012) | 2.8±0.3<br>(0.110±0.012) | 2.4±0.1<br>(0.094±0.004) | 1.3±0.3<br>(0.051±0.012)              | 0.5±0.15<br>(0.020±0.006) | 0.10±0.10<br>(0.004±0.004) | 0.9<br>(0.035) | 1.0<br>(0.039) | 0.13<br>(0.005) | 3.8<br>(0.150) | 292             |

Notes: (Ref) - Dimensions provided for reference only.

These weights are provided as reference. If exact weights are needed, please contact your KEMET Sales Representative



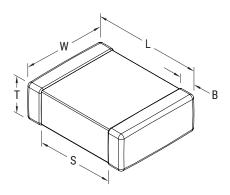
# **COG High Temperature – Millimeters (Inches)**



| EIA Size<br>Code | Metric Size<br>Code | L<br>Length                   | W<br>Width                    | T<br>Thickness               | B<br>Bandwidth                | S<br>Separation<br>Minimum | Mounting<br>Technique           |  |
|------------------|---------------------|-------------------------------|-------------------------------|------------------------------|-------------------------------|----------------------------|---------------------------------|--|
| 0402             | 1005                | 1.00 (0.040)<br>±0.05 (0.002) | 0.50 (0.020)<br>±0.05 (0.002) |                              | 0.30 (0.012)<br>±0.10 (0.004) | 0.30 (0.012)               | Solder Reflow<br>Only           |  |
| 0603             | 1608                | 1.60 (0.063)<br>±0.15 (0.006) | 0.80 (0.032)<br>±0.15 (0.006) |                              | 0.35 (0.014)<br>±0.15 (0.006) | 0.70 (0.028)               |                                 |  |
| 0805             | 2012                | 2.00 (0.079)<br>±0.20 (0.008) | 1.25 (0.049)<br>±0.20 (0.008) |                              | 0.50 (0.02)<br>±0.25 (0.010)  | 0.75 (0.030)               | Solder Wave or<br>Solder Reflow |  |
| 1206             | 3216                | 3.20 (0.126)<br>±0.20 (0.008) | 1.60 (0.063)<br>±0.20 (0.008) | See Table 2 for<br>Thickness | 0.50 (0.02)<br>±0.25 (0.010)  |                            |                                 |  |
| 1210             | 3225                | 3.20 (0.126)<br>±0.20 (0.008) | 2.50 (0.098)<br>±0.20 (0.008) |                              | 0.50 (0.02)<br>±0.25 (0.010)  | NI/A                       |                                 |  |
| 1812             | 4532                | 4.50 (0.177)<br>±0.30 (0.012) | 3.20 (0.126)<br>±0.30 (0.012) |                              | 0.60 (0.024)<br>±0.35 (0.014) | N/A                        | Solder Reflow<br>Only           |  |
| 2220             | 5650                | 5.70 (0.224)<br>±0.40 (0.016) | 5.00 (0.197)<br>±0.40 (0.016) |                              | 0.60 (0.024)<br>±0.35 (0.014) |                            |                                 |  |



#### **X7R High Temperature**



# **Dimensions - Millimeters (Inches) - Standard Termination**

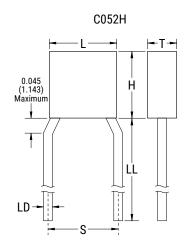
| EIA Size<br>Code | Metric Size<br>Code | L<br>Length                   | W<br>Width                    | T<br>Thickness | B<br>Bandwidth                | S<br>Separation<br>Minimum | Mounting<br>Technique |  |
|------------------|---------------------|-------------------------------|-------------------------------|----------------|-------------------------------|----------------------------|-----------------------|--|
| 0402             | 1005                | 1.00 (0.040)<br>±0.05 (0.002) | 0.50 (0.020)<br>±0.05 (0.002) |                | 0.30 (0.012)<br>±0.10 (0.004) | 0.30 (0.012)               | Solder Reflow Only    |  |
| 0603             | 1608                | 1.60 (0.063)<br>±0.15 (0.006) | 0.80 (0.032)<br>±0.15 (0.006) |                | 0.35 (0.014)<br>±0.15 (0.006) | 0.70 (0.028)               | Solder Wave           |  |
| 0805             | 2012                | 2.00 (0.079)<br>±0.20 (0.008) | 1.25 (0.049)<br>±0.20 (0.008) | See Table 2    | 0.50 (0.02)<br>±0.25 (0.010)  | 0.75 (0.030)               | or                    |  |
| 1206             | 3216                | 3.20 (0.126)<br>±0.20 (0.008) | 1.60 (0.063)<br>±0.20 (0.008) | for Thickness  | 0.50 (0.02)<br>±0.25 (0.010)  |                            | Solder Reflow         |  |
| 1210             | 3225                | 3.20 (0.126)<br>±0.20 (0.008) | 2.50 (0.098)<br>±0.20 (0.008) |                | 0.50 (0.02)<br>±0.25 (0.010)  | N/A                        | Solder Reflow Only    |  |
| 1812             | 4532                | 4.50 (0.177)<br>±0.30 (0.012) | 3.20 (0.126)<br>±0.30 (0.012) |                | 0.60 (0.024)<br>±0.35 (0.014) |                            | Solder Reflow Only    |  |

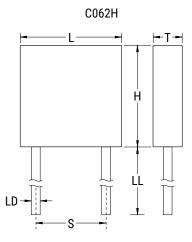
## **Dimensions - Millimeters (Inches) - Flexible Termination**

| EIA Size<br>Code | Metric Size<br>Code | L Length      | W Width       | T<br>Thickness | B Bandwidth   | S<br>Separation<br>Minimum | Mounting<br>Technique |  |
|------------------|---------------------|---------------|---------------|----------------|---------------|----------------------------|-----------------------|--|
| 0603             | 1608                | 1.60 (0.063)  | 0.80 (0.032)  |                | 0.45 (0.018)  | 0.58 (0.023)               |                       |  |
|                  | 1000                | ±0.17 (0.007) | ±0.15 (0.006) |                | ±0.15 (0.006) | 0.00 (0.020)               | Solder Wave           |  |
| 0805             | 2012                | 2.00 (0.079)  | 1.25 (0.049)  |                | 0.50 (0.02)   | 0.75 (0.030)               | or<br>Solder Reflow   |  |
| 0003             | 2012                | ±0.30 (0.012) | ±0.30 (0.012) |                | ±0.25 (0.010) | 0.73 (0.030)               |                       |  |
| 1206             | 3216                | 3.30 (0.130)  | 1.60 (0.063)  | See Table 2    | 0.60 (0.024)  |                            |                       |  |
| 1200             | 3210                | ±0.40 (0.016) | ±0.35 (0.013) | for Thickness  | ±0.25 (0.010) |                            |                       |  |
| 1210             | 3225                | 3.30 (0.130)  |               |                | 0.60 (0.024)  | NI/A                       | Colder Deflow Only    |  |
| 1210             | 3223                | ±0.40 (0.016) | ±0.30 (0.012) |                | ±0.25 (0.010) | N/A                        | Solder Reflow Only    |  |
| 1010             | 4522                | 4.50 (0.178)  | 3.20 (0.126)  |                | 0.70 (0.028)  |                            | Colder Deflow Only    |  |
| 1812             | 4532                | ±0.40 (0.016) | ±0.30 (0.012) |                | ±0.35 (0.014) |                            | Solder Reflow Only    |  |



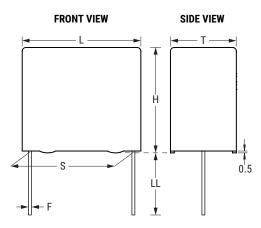
## **High Temperature Radial Molded X7R and C0G – Millimeters (Inches)**





| Series | S<br>Lead Spacing | L<br>Length              | H<br>Height              | T<br>Thickness           | LD<br>Lead Diameter   | LL<br>Lead Length<br>Minimum |
|--------|-------------------|--------------------------|--------------------------|--------------------------|-----------------------|------------------------------|
| C052H  | 5.08±0.38         | 4.83±0.25<br>(0.19±0.01) | 4.83±0.25<br>(0.19±0.01) | 2.29±0.25<br>(0.09±0.01) | 0.635+0.102/-0.051    | 31.75                        |
|        | (0.20±0.015)      | 7.37±0.01)               | 7.37±0.25                | 2.29±0.25                | (0.025+0.004/-0.002)  | (1.25)                       |
| C062H  | (3.2320.07)       | (0.29 ±0.01)             | (0.29 ±0.01)             | (0.09±0.01)              | (3.323 3.30 1, 0.002) | (20)                         |

### F211 (SMR) - Millimeters



| KEMET<br>Size Code | Legacy<br>Size Code | р       |           |         | В         | ı       | Н         | ı       | Ĺ         |         | ı         |  |
|--------------------|---------------------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|--|
|                    |                     | Nominal | Tolerance |  |
| FM                 | F13                 | 27.5    | ±0.4      | 14.5    | Maximum   | 24.5    | Maximum   | 31.5    | Maximum   | 0.8     | ±0.05     |  |



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