



# Multilayer Ceramic Capacitors

## High Temperature Pulse Discharge Solution

Electronic Components  
**KEMET**  
CHARGED®

### Why Choose KEMET

KEMET Electronics Corporation is a leading global supplier of electronic components. We offer our customers the broadest selection of capacitor technologies in the industry, along with an expanding range of electromechanical devices, electromagnetic compatibility solutions and supercapacitors. Our vision is to be the preferred supplier of electronic component solutions for customers demanding the highest standards of quality, delivery and service.

### Features & Benefits

- ROHS/REACH compliant
- High current transient pulses
- Discharge pulse width typically of 100 ns (may vary with load conditions)
- Operating temperature up to +200°C
- No capacitance change with voltage
- Negligible capacitance change with temperature
- Discharge voltage up to 3,500 V
- Surface mountable
- BME technology for superior reliability
- Dissipation factor < 0.1%
- 100% enhanced screening for reliable energy delivery

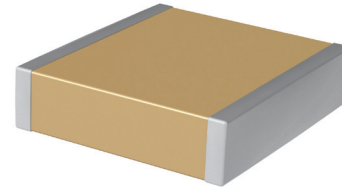
### Product Checklist

- Is your application operating in extreme environments?
- Do you require a RoHS compliant solution?
- Do you need a thermally stable solution?
- What is your maximum operating temperature?
- What are your capacitance and voltage requirements?
- Do you have any size constraints?
- Do you require high energy pulses?
- How much pulse energy do you need for your application?

**For more information, samples and engineering kits, please visit us at [www.kemet.com](http://www.kemet.com) or call 1.877.myKEMET.**

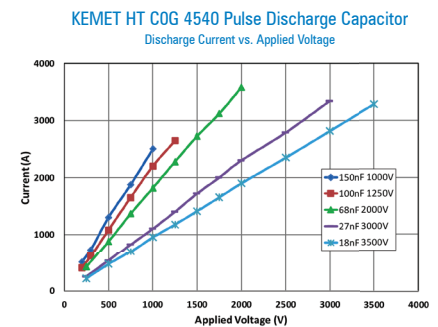
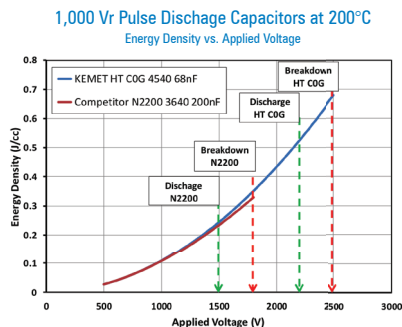
### Applications

- Down-hole drilling
- Electronic fuse
- Detonation/munitions
- Fireset circuitry
- High temperature lighting ballasts



### KEMET Electrical/Physical Characteristics

| Case Size | Form Factor | Dielectric | Operating Temperature Range | Temperature Coefficient (TCC) | Capacitance Range |
|-----------|-------------|------------|-----------------------------|-------------------------------|-------------------|
| 2824      | SMD         | COG        | -55°C to +200°C             | ±30 ppm (-55°C to +200°C)     | 2.2 nF – 56 nF    |
| 3040      |             |            |                             |                               | 3.3 nF – 100 nF   |
| 3640      |             |            |                             |                               | 3.9 nF – 120 nF   |
| 4540      |             |            |                             |                               | 4.7 nF – 150 nF   |



### Ordering Information

| Ceramic | Case Size (L"xW")            | Specification/ Series | Capacitance Code (pF)                      | Capacitance Tolerance           | Dielectric Withstanding Voltage <sup>1</sup> (VDC)            | Dielectric | Failure Rate/ Design | Termination Finish <sup>2</sup>         | Packaging (C-Spec) <sup>3</sup>               |
|---------|------------------------------|-----------------------|--------------------------------------------|---------------------------------|---------------------------------------------------------------|------------|----------------------|-----------------------------------------|-----------------------------------------------|
| C       | 2824                         | H                     | 393                                        | K                               | U                                                             | G          | W                    | C                                       | TU                                            |
|         | 2824<br>3040<br>3640<br>4540 | H = High Temp (200°C) | 2 significant digits plus number of zeros. | J = ±5%<br>K = ±10%<br>M = ±20% | D = 1,000<br>U = 1,250<br>G = 2,000<br>H = 3,000<br>V = 3,500 | G = COG    | W = Pulse Discharge  | C = 100% Matte Sn<br>L = SnPb (5% min.) | See "Packaging C-Spec Ordering Options Table" |

<sup>1</sup> DWV is the voltage a capacitor can withstand (survive) for a short period of time. It exceeds the nominal and continuous working voltage of the capacitor.

<sup>2</sup> Additional termination finish options may be available. Contact KEMET for details.

<sup>3</sup> Additional reeling or packaging options may be available. Contact KEMET for details.