

# Automotive Grade, 135 °C, Long Life and High Voltage C4AK, High Temperature, DC Link

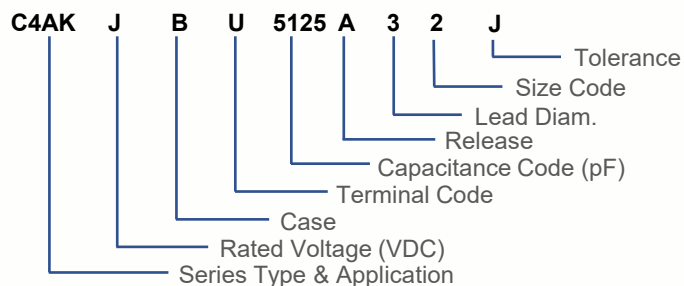
## Overview

The C4AK film capacitor uses a new metallized dielectric material that meets the demanding Automotive Electronics Council's AEC-Q200 qualification requirements, and it has an extended life capability at 125°C hot-spot and can reach up to 135°C hot spot temperature.

## Benefits

- Self-healing
- High ripple current
- High capacitance density
- Harsh environment capability
- Miniaturization:
  - Minimize the qty of capacitors at high temperature applications
- High reliability:
  - Long life up to 200,000 hours with voltage and current derating
- Suitable for high frequency applications

## Part Number System

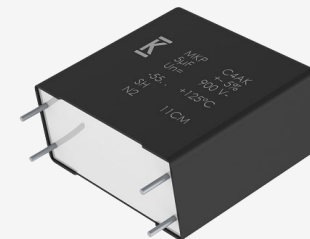


## Electrical Characteristics

Capacitance Range: 1.5  $\mu$ F to 60  $\mu$ F  
 Rated Voltage  $V_{NDC}$  (85 °C): 700 V, 900 V  
 +30°C Max. self-heating and 100%  $I_{rms}$  up to 95 °C ambient temperature.

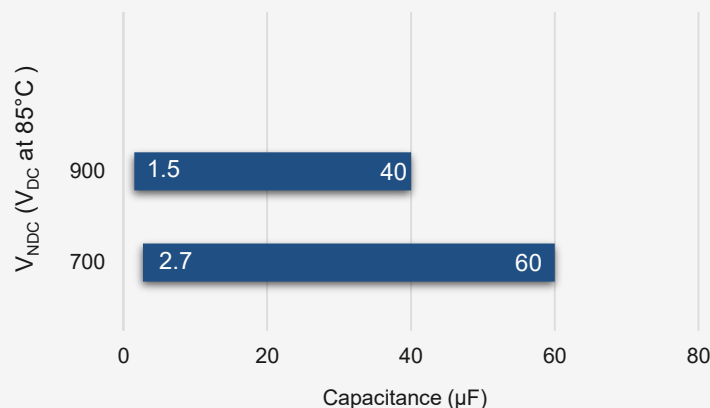
## Features

Harsh Environment Capable  
 1,000 h at 85°C / 85% R.H.,  $V_{NDC}$   
 2 pins or 4 pins terminals leads  
 Low profile with 12.5 mm minimum height



## Characteristics

Capacitance Range Per Voltage



Operative Voltage (Vop) Derating at Hot Spot $T_{HS}$ (°C)	Voltage Range (VDC)	Life Expectancy (Hours)
$V_{NDC}$ at 85°C	700 900	100,000
Vop at 105°C	600 800	20,000
Vop at 125°C	500 720	4,000
Vop at 135°C	400 500	1,000

## Applications

- DC Link
- DC Filtering
- Energy storage
- EV & HV automotive
- Renewable energy systems
- Electric motor drives

<https://ec.kemet.com/dc-link/>