

Built for the most extreme automotive operating conditions, Vishay's brand new K...H series of leaded MLCCs defines a new standard for performance and reliability. Following the trend towards higher operating temperatures of automotive electronic components, this new HOTcap™ features an unmatched maximum operating temperature of +175°C for all available ceramic dielectrics. These include an ultra-stable COG dielectric with a capacitance change of ±30 ppm/K within the temperature range from –55 to +175°C and the brand new XOU dielectric with a capacitance change of +22% / –56% in the particular temperature range.

To accommodate the extremely harsh automotive operating conditions the new HOTcap™ series is equipped with high performance MLCC chips, which have been produced in a unique wet build process and feature noble metal electrodes.

The capacitors are qualified according to the highest quality and performance requirements, covered by the AEC-Q200 standard, which qualify them for automotive applications. These include EMI filtering in various automotive functional areas such as exhaust gas and seat position sensors; cable harnesses; and turbo charger, throttle valve, and brake system control

The capacitors of the K...H series offer straight or crimped leads with spacing of 2.5 mm and 5.0 mm. The devices' lead wires measure 0.5 mm or 0.6 mm and are constructed of 100 % tinned copper-clad steel. The RoHS-compliant capacitors offer a coating made of flame-retardant epoxy resin in accordance with UL 94 V-0

Device Specification Table:

Ceramic class	1			2		
Ceramic Dielectric	COG			XOU		
Voltage (VDC)	50	100	200	50	100	200
Min. capacitance (pF)	100	100	100	47,000	47,000	82,000
Max. capacitance (pF)	12,000	12,000	8,200	1,000,000	470,000	180,000