

## **NICHICON Launches Industry's Longest Life PCM Series of 125°C Chip-Type Conductive Polymer Aluminum Solid Electrolytic Capacitors**

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NICHICON CORPORATION has launched the PCM series (chip-type conductive polymer aluminum solid electrolytic capacitors) for automotive applications and industrial equipment requiring a high degree of reliability. At a guaranteed 8,000 hours of operation, the PCM series features the longest life rating in the industry for capacitors rated at 125°C.

The PCM series retains the characteristics of the PCR series (4,000 hours guaranteed at 125°C), such as the same capacitance and ESR, while achieving a longer life (8,000 hours guaranteed at 125°C).

### **Overview and Development Background**

Integration and diversification of control boards is progressing in the automotive industry accompanying technological progress in automotive onboard electronics such as those supporting ADAS\* and self-driving features. High temperature heat-resistant components are required as a result of changes such as having powertrain ECUs\*\* installed in the engine compartment. In addition to being heat resistant the capacitors must also be long-lasting. To meet these needs, Nichicon developed the PCM series to be heat-resistant while having long life.

### **Features**

The PCM series further advances the high-heat-resistance technology of conductive polymer aluminum solid electrolytic capacitors. The PCM series achieves longer life than the PCR series while maintaining characteristics such as capacitance and ESR by further improving the conductive polymer formation methods, optimizing material composition and material design, and increasing the sealing performance. As a result, this will contribute to further expand temperature ranges and miniaturization leading to a reduction in production costs and allowing our customers to choose from a broader range of capacitors to meet

their needs.

### Main Specifications

Rated voltage range	16 to 80 V DC
Rated capacitance range	12 to 1000 $\mu$ F
Product dimensions	$\Phi$ 6.3 $\times$ 6L to $\phi$ 10 $\times$ 12.7L (mm) (eight sizes)
Category temperature range	-55 to +125°C
Life	8,000 hours at 125°C ( $\Phi$ 6.3: 6,000 hours at 125°C)
Terminal shape	Chip type
Samples	Currently available
Mass production	From April 2020 [Planned production volume: 1,000,000/month]
Production plant	NICHICON (OHNO) CORPORATION, SITE II Factory 4-24-15 Tsuchifugo, Ono, Fukui Prefecture (ISO 9001, IATF 16949, and ISO 14001 certified)

### Terminology Explanation

\*ADAS: Advanced driver- assistance systems

\*\*ECU: Electronic Control Unit



PCM Series of 125°C Chip-Type  
Conductive Polymer Aluminum Solid Electrolytic Capacitors