Product Brief | New-to-Market

CAPACITORS

Aluminum Electrolytic

Radial Hybrid Polymer Capacitors

YAGEO GROUP
Built into Tomorrow

PRODUCT OVERVIEW

YAGEO Group's A7C0 is a **Radial Hybrid Polymer Aluminum Electrolytic capacitor** designed for exceptional reliability in **automotive-grade circuits** and **extreme temperature applications.**

The **A7C0** sets a new benchmark for designers seeking **compact, high-efficiency components** with high ripple current handling without compromising on **durability** or **electrical performance**.

Quick Facts

Voltage: 25 – 63 VDC NEW

Capacitance Range: 27 – 560 µF

Construction: Radial Hybrid Polymer Aluminum Electrolytic

Certifications: AEC-Q200, RoHS and Halogen-free

Contact & Information

For special requests (custom designs, lifetime extensions, etc.), contact regional Product Managers.

Key Selling Points

Features	Customer Value
125°C Temperature Rating	Handles extreme temperature environments
Hybrid Polymer Technology (PEDOT/PSS)	Superior performance in power-dense applications
AEC-Q200 Qualified	Automotive and industrial grade quality
4,000h @ +125°C (Vr, Ir applied)	Long life under full electrical stress
Low ESR & High Ripple Current	Self-healing durability and high efficiency
Through-Hole Form Factor	Flexible assembly for varied PCB designs

Target Applications

- **Automotive ECU Modules**
- **DC-DC Converters**
- **Power Supply Input/Output Filtering**
- **Motor Inverters / Motor Control**
- **On-Board Chargers (OBC)**
- **Battery Management Systems (BMS)**
- **Voltage Regulators & Decoupling**
- **Industrial Automation**
- **AI Datacenter Power Systems**

Market Advantages

- **Reduce component count and BOM costs.** High ripple current capability means fewer capacitors in parallel, simplifying design and reducing PCB footprint.
- Need **extreme temperature reliability with automotive-grade** quality? A7C0 is AEC-Q200 qualified with 4,000h at 125°C, combining hybrid polymer's low ESR with self-healing durability.
- **Ideal replacement for automotive ECUs, DC-DC converters, and power filtering**, especially where thermal performance, space efficiency, and long-term reliability matter.
- **Boost reliability without increasing board size.** A7C0 delivers exceptional ripple current and ultra-low ESR in compact radial form, perfect for upgrading automotive systems or designing next-gen industrial platforms.