

CAPACITORS

Film capacitor

High Current Y2/X1 Film Capacitors



The R41D V234 is an extension of R41D **high dv/dt** series of Y2/X1 radial metallized polypropylene EMI suppression capacitor. On top of high dv/dt, the new extension with c-spec V234 doubles the **Irms** performance to carry more ripple currents

R41D V234 also withstands **harsh environment** and **high temperature**, thus inherits R41D's **extended lifetime**

The combination of all above makes R41D V234 an ideal choice for **EMI filtering** in **wide-bandgap-component-based power conversion applications**

Quick Facts

- Capacitance Range:** 0.001 – 0.22 μ F
- Rated Voltage VAC :** 300 VAC (50/60 Hz)
- Recommended DC Voltage:** 1200 VDC
- High dv/dt:** 6000/4500/3000 V/ μ s (pitch 10/15/22.5mm)
- High Irms (with c-spec V234):** ~2x compared to standard

Contact & Support

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



Key Selling Points

Features	Customer Value
High dv/dt	Up-to 7.5x transient current for WBG/Pulse applications
High Irms current (with c-spec V234)	Up-to 2x ripple current* for EMI filtering reduces the count of caps
THB Grade at AC and DC voltages	Reliability in harsh environments extends lifetime in AC and DC apps
Max operation temperature 125°C/2khr	Reliability in high temperature applications extends lifetime
Approvals: ENEC, UL, cUL, CQC	Global deployment
AEC-Q200 compliant	Suitable for automotive applications

* Based on 100nF at 100kHz/85°C, refer to series catalogue for more details
 **85°C/85% R.H./300Vrac 1000 hrs (≥ 2.2 nF) or 500 hrs (< 2.2 nF); 65°C/93% R.H./1000Vdc 1600 hrs

Target Applications

- **AC Input Y2/X1**
- **HVDC Filter**
- **Three-Phase Output**
- **3-phase UPS**
- **Automotive OBC, DC/DC**
- **Solar Inverter & Energy Storage**
- **Charging stations**

Market Advantages

- If you are working on a power conversion system based on **wide bandgap** transistors, and need a safety capacitor at the Y position, R41D V234 is an ideal choice which combines **high dv/dt and Irms** performances for **the first time in the industry**. It helps reduce the count of capacitors needed to filter the transient and ripple currents which are often seen in wide bandgap systems, thus makes your design **easier** and **cost effective**.
- You can also benefit from R41D **high THB grade** and **high temperature**, which can help you improve your system's **reliability** in hash/hot environments, and **extend the lifetime** of your product
- Safety approvals and AEC-Q200 compliance eases **global deployment** in both **automotive** and **non-automotive** applications