

● Feature

- ☑ Endurance: 135°C 2,000 to 3,000h (with ripple)
- ☑ Voltage: 25V_{dc} to 100V_{dc}
- ☑ Capacitance: 510μF to 8,200μF
- ☑ Size: φ18×30L / φ18×35.5L (2size)
- ☑ Vibration: 40G
- ☑ Guranteed short time at 150°C (150°C100h+135°C1,500 to 2,500h)

● Recommended Application

- ☑ Direct injection / Variable valve lift
- ☑ ECU directly mounted on engine
- ☑ AEC-Q200 compliant



● Product Chart

- ☑ Recommended to replace from GPA/GVA to GVD
*Lineup for Automotive High heat resistance / vibration resistance

GVD



Higher cap. / ripple current

40G (vibration resistance)

- 150°C short term
- 135°C 2,000 to 3,000h
- Initial ESR specified (-40°C/20°C)

GPA

Automotive high temp.

- 150°C short term
- 125°C 3,000 to 5,000h
- EOL ESR specified (-40°C/20°C)

Since 2005.07

GVA

40G (vibration resistance)

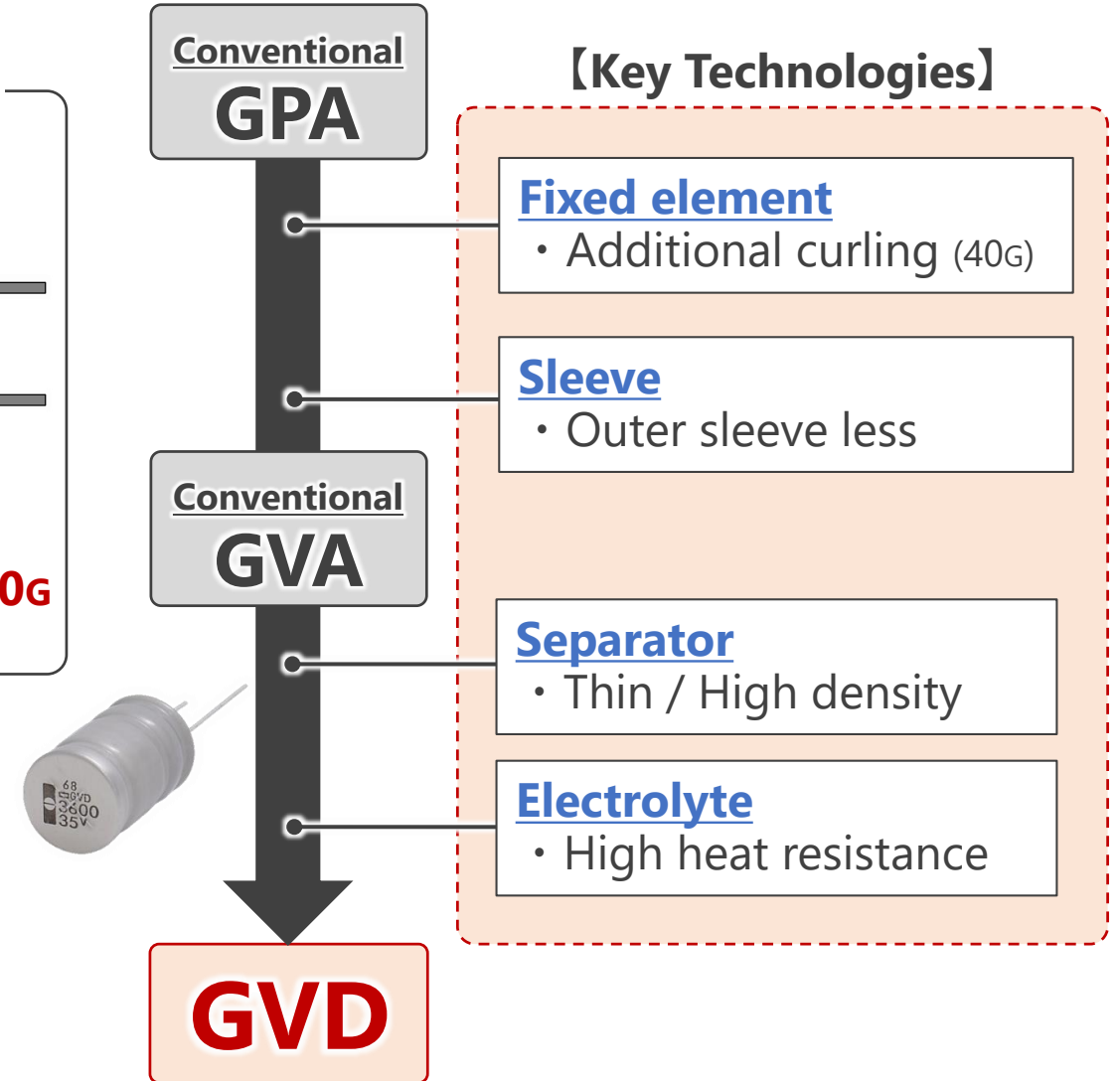
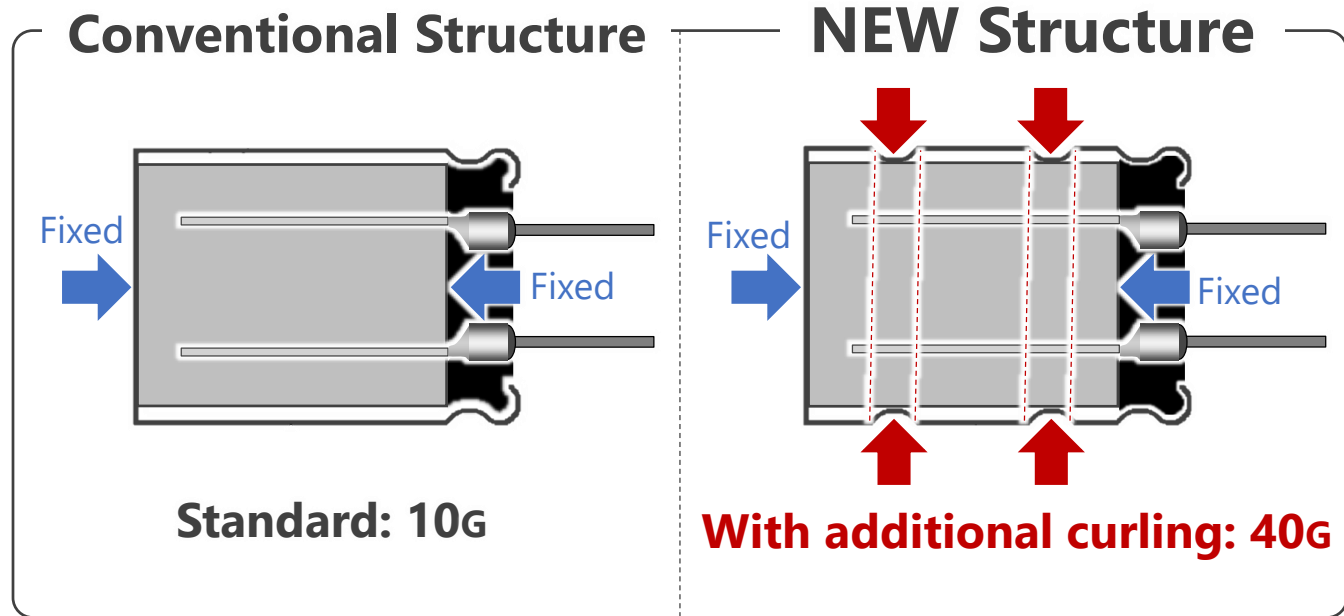
- 150°C short term
- 125°C 5,000h
- Initial ESR specified (-40°C/20°C)

Since 2013.03

Since 2019.02



● Advantage



✓ Three advantages from GPA to GVD



- ① Higher vibration resistance (40G)
- ② Higher temperature
- ③ Higher cap. /ripple current

● Benefit / Evidence

- ➔ ① Higher vibration resistance / ② Higher temperature
- ③ Higher cap. / ripple Current · · · Longer equipment lifetime



✓ Ideal for mechatronics integration

● Combined mechanical and electrical function

- ✓ More accurate control
- ✓ Flexible mounting
- ✓ Reduced wire harness



AEC-Q200

GVD

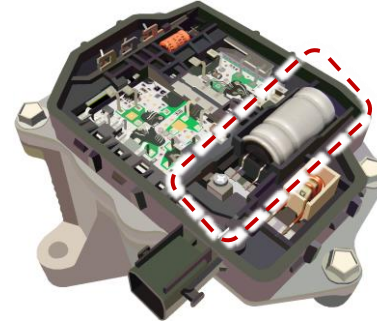
- **40G** Vibration
- **135°C** Endurance
- **150°C** Short term (+100h)



✓ Application example

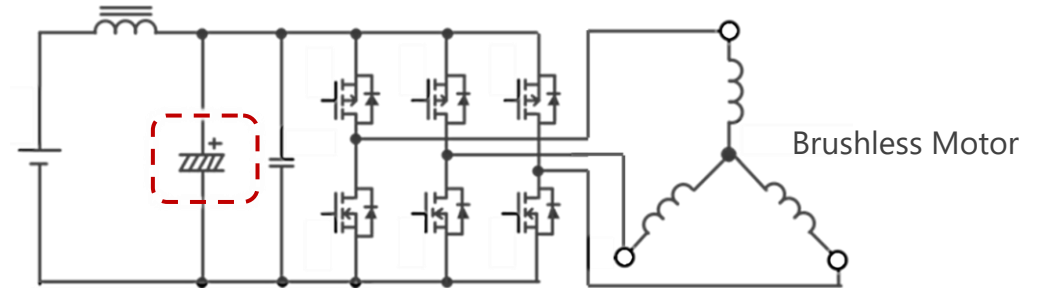
*EDU: Electric Driver Unit

● Variable valve lift EDU



✓ Other examples

- Engine control unit
- Transmission control unit
- Integrated starter generator
- Electrical power steering
- Electrical water /oil pump



Benefit / Evidence

① Higher vibration resistance / ② Higher temperature

➔ ③ Higher cap. / ripple Current . . . Longer equipment lifetime

