

● Feature

- ☑ Endurance: 125°C **5,000h**
- ☑ Voltage: 25, 35V_{dc}
- ☑ Capacitance: 330 to 560μF
- ☑ Size: **φ10×10L**
- ☑ Vibration: **40G** (with vibration resistance structure)

● Product Chart

- ☑ **Recommended to replace from MVH/MHL to MHU**

*High Temperature / Longer life series (SMD type)

MVH

- Standard
- 125°C 1,000 to 4,000h
- 30G (Vibration resistance structure)
- 35V**220μF**, 296mArms (φ10×10L)

Since 1998.06

MHL

- Downsizing
- 125°C 2,000 to 4,000h
- 30G (Vibration resistance structure)
- 35V**330μF**, 440mArms (φ10×10L)

Since 2013.11

Under development

MHU

Optimized for longer life!!

- **125°C 5,000h**
- **40G** (Vibration resistance structure)
- 35V**470μF**, **800mArms** (φ10×10L)



2024.07~M.P. scheduled

● Recommended Application

- ☑ Automotive ECUs
- ☑ Power supply for infrastructure
- ☑ New proposal to high temperature environment

Vibration resistance + Longer life

Al-SMD Caps

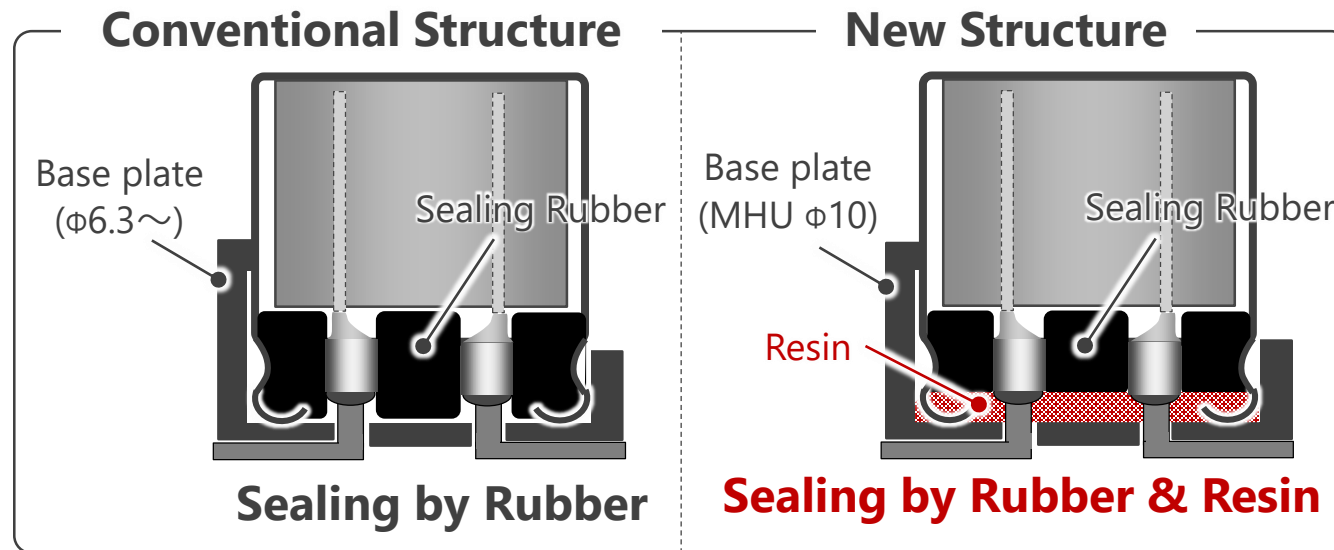
MHU

Higher ripple + Longer life

Al-Hybrid Caps

HXC

● Advantage



Conventional
MHL

【Key Technologies】

Sealing by resin

- Decreasing electrolyte evaporation
- Improved reflow resistance

New sealing method

- Improved vibration resistance

Fixed base plate
and case by resin



Patent pending

☑ Three advantages from Conventional series



- ① **Longer life**
- ② **Higher vibration resistance**
- ③ **High temperature reflow**

Under Development

MHU

Optimized for longer life!!

2024.07~M.P. Scheduled.

● Benefit/Evidence

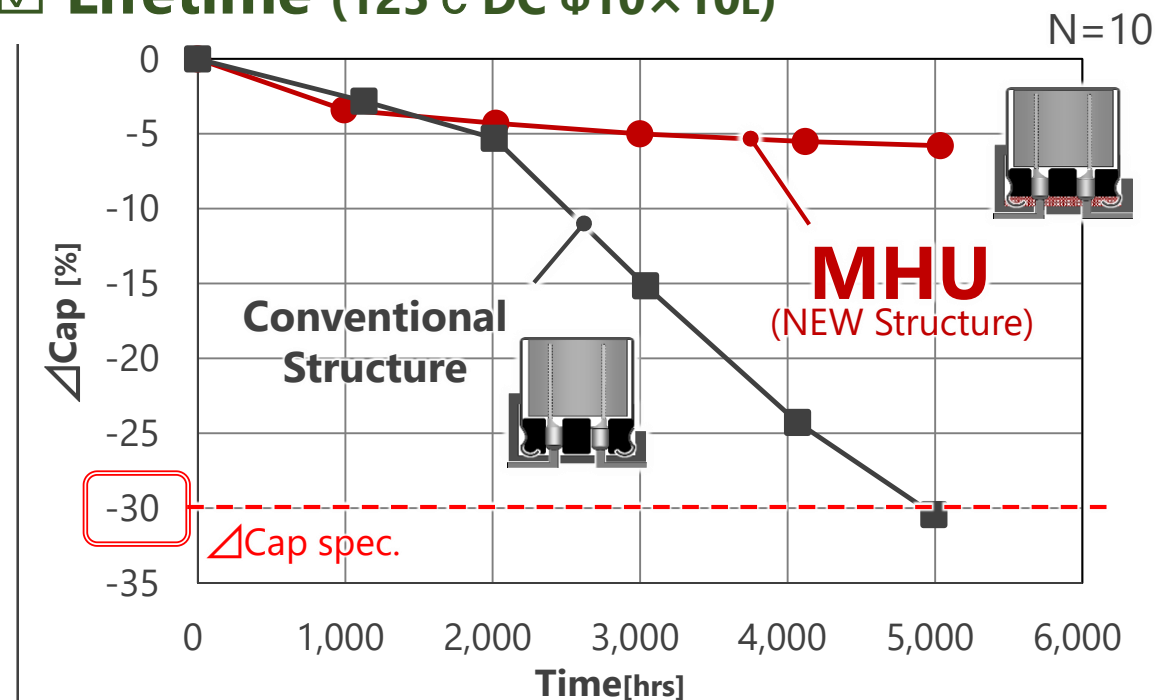
➡ ① **Longer life** • • • • Improved endurance for Automotive ECUs and 5G base station

➡ ② **Higher vibration resistance** • • **Guaranteed 40G**

③ **High temperature reflow** • • • **Higher heat resistance during reflow than conventional series**



☑ Lifetime (125°C DC $\phi 10 \times 10L$)



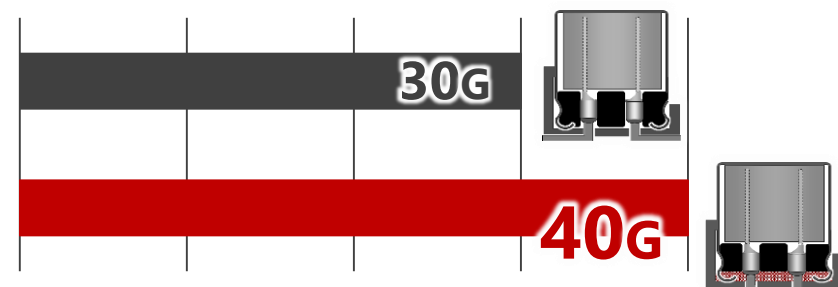
☑ Vibration Resistance ($\phi 10 \times 10L$)

● Condition

- Vibration Frequency Range: 10 to 2,000Hz (High Freq.)
- Sweep Time: 20min (round trip)
- Direction and Period of Motion: 2hrs in each of X, Y, Z direction

Conventional Structure

MHU
(NEW Structure)



*Guaranteed Value

● Benefit/Evidence

① Longer life · · · · Improved endurance for Automotive ECUs and 5G base station

② Higher vibration resistance · · Guaranteed 40G

➡ ③ **High temperature reflow** · · · **Higher heat resistance during reflow than conventional**



☑ **Comparison by reflow profile (35V, $\phi 10 \times 10L$)**

