

Power Device Package ~POL(Power Overlay)~

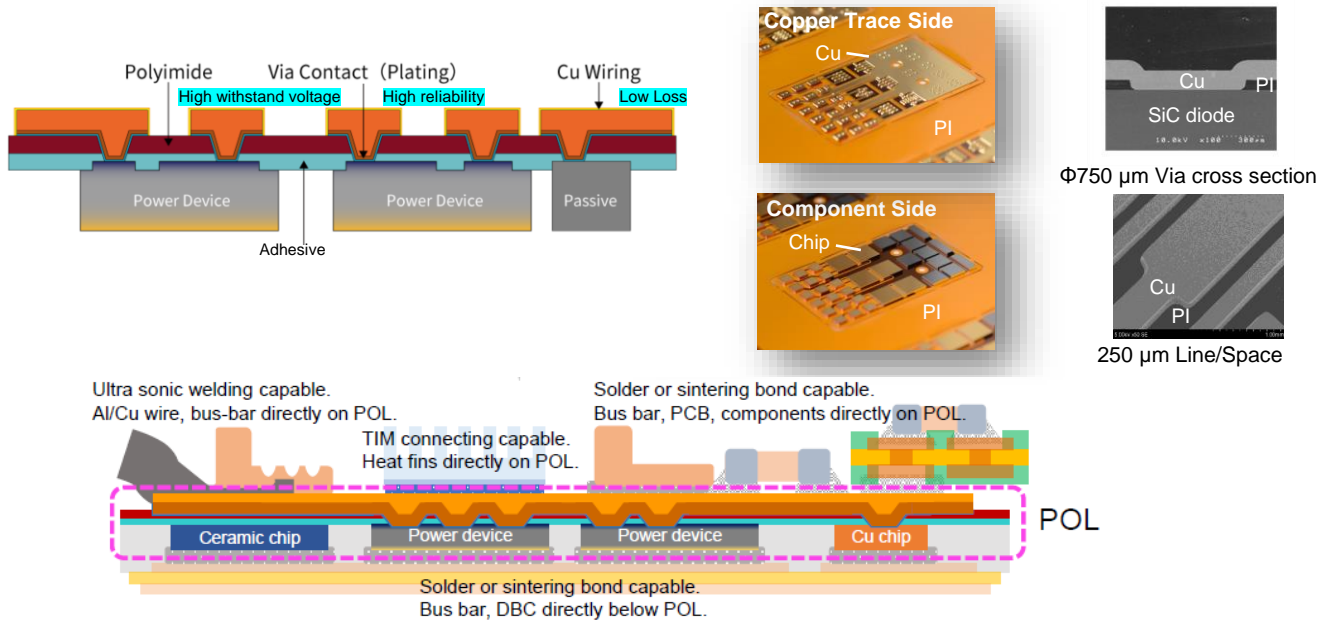
- Under development, sample is available -

Feature

- High dimensional precision and shape reproducibility of power circuits by photolithography
- Excellent reliability by direct copper connection of chips to substrate patterning
- Low conduction loss, low switching loss, short switching dead time and high heat dissipation
- Small form factor, lightweight, high efficiency and long lifetime for power systems

Structure

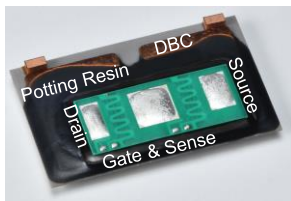
- Redistribution layer on isolation film above power device
- Multiple connection techniques capable to shrink power systems



Examples

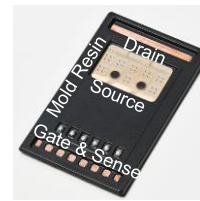
*DBC : Direct Bonded Copper

■ Half Bridge POL (on DBC* Substrate)



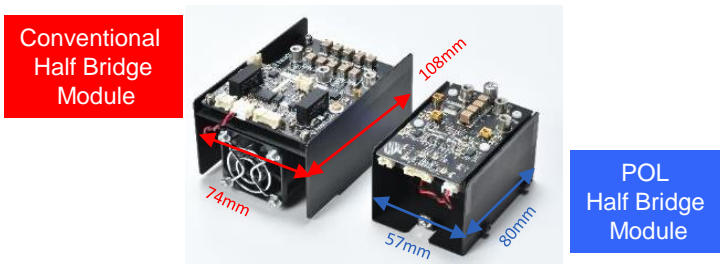
W14 x L23 x H1.5mm

■ Molded POL (with DBC* Substrate)



W26.4 x L45.1 x H1.9mm

■ Example of GaN Half Bridge Module : About 50% smaller by POL



- Conventional Half Bridge Module size :
W74 x L108 x H62.5mm = 499.6cm³
- POL Half Bridge Module size :
W57 x L80 x H59.8mm = 272.7cm³

