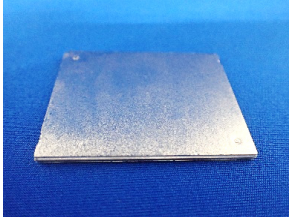


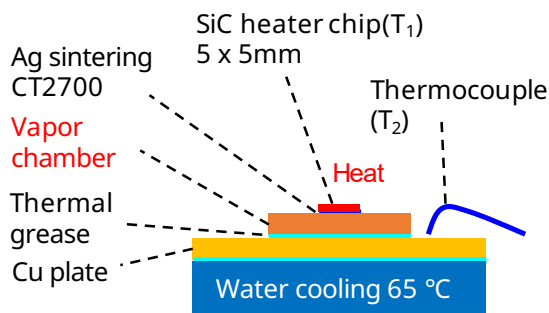
VAPOR CHAMBER FOR HIGH HEAT FLUX APPLICATION



FEATURES

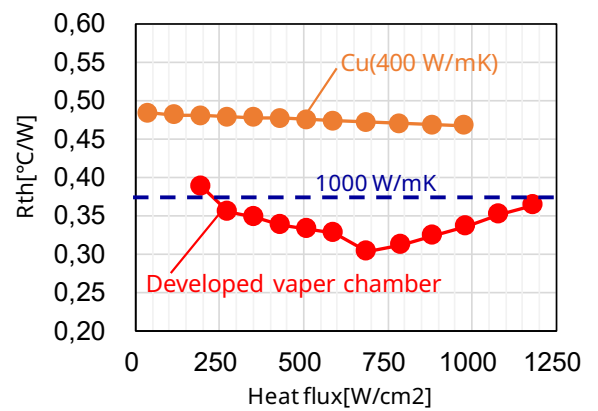
- ▶ Higher thermal conductivity (>1000 W/mK)
- ▶ Applicable for high heat flux (1000 W/cm² @ chip size 5 x 5 mm)
- ▶ Heat tolerance for chip assembly (250 °C)

MEASUREMENT METHOD



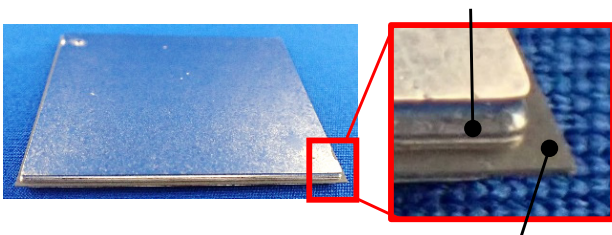
Thermal resistance $R_{th} [^{\circ}C/W] : \frac{T_1 - T_2}{Q}$

THERMAL RESISTANCE MEASUREMENT



VAPOR CHAMBER EMBEDDED AMB* SUBSTRATE FOR POWER MODULE

AMB=Active Metal Bonding



FEATURES

- ▶ Higher thermal conductivity to dissipate of SiC chip
- ▶ Heat tolerance for chip assembly by Ag-sintering (250 °C)
- ▶ Vapor chamber brazed directly to ceramic substrate or package

| | AMB Substrate | Vaper chamber embedded AMB substrate |
|----------------------|---------------|--------------------------------------|
| Cross-sectional view | | |