ACTIVE METAL BONDING SUBSTRATES
FOR EV/HEV INVERTERS

FEATURES
- High reliability (AMB Technology)
- Variety of platings (Ni, Ni/Au, NiPdAu, Ni/Pd/Ag, Ag)
- High thermal conductivity
- Multilayer structure feasible
- Different Cu thickness plates on same substrate
- Various connector possibilities

FLOWCHART

PLATING OPTIONS
- Partial silver plating
- Direct silver plating
- Nickel-palladium-gold or silver plating
- Nickel-gold plating
- Nickel plating

MULTILAYER STRUCTURE
- Multilayer AMB structure
- Low inductance
- 3 dimensional routing

RELIABILITY AMB PROCESS
- Active Metal Bonding
- Ti Compound - alloy (Ag-Cu)
- High adhesion strength to ceramics

CONNECTOR TECHNOLOGIES
- Lead type
- Long lead type
- Cu PIN type
- Screwable (SiN) type

MATERIALS AVAILABILITY
- Si₃N₄: High flexural strength (850 MPa)

APPLICATIONS
- Power module devices