T3

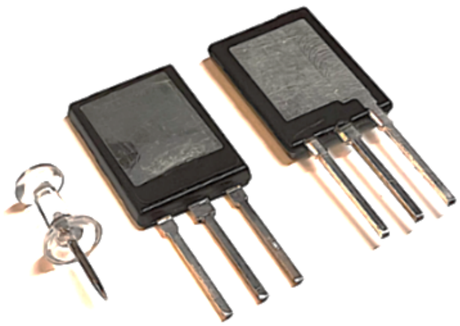
Marel Power Module
4 1200V SiC per module
0.02°C/W R_{th}

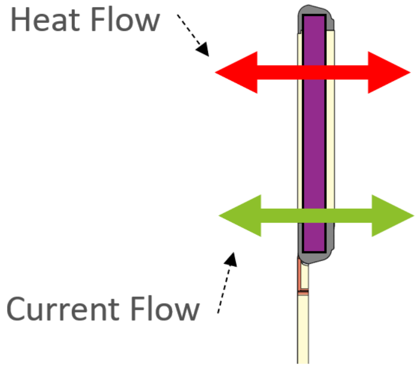
MAREL
POWER SOLUTIONS

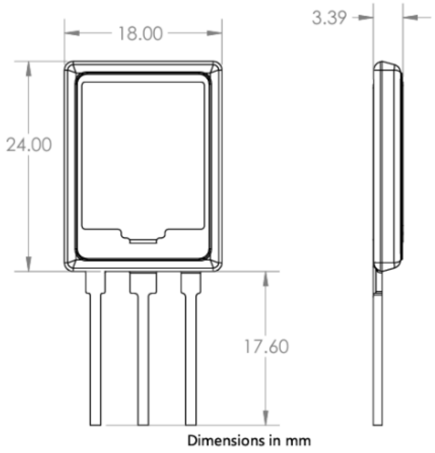
The **Marel T3 Power Module** is a non-isolated TO247-like design featuring source and drain plates on the side of the package. Elegantly minimalist, this design limits the inductance of current connections to less than 1nH preserving the integrity of die performance. The source and drain pins are Kelvin connections and do not carry current. Each T3 can accommodate four SiC dies and can support up to 1000A of pulse current.

Number of SiC die	4
Thermal Resistance ($R_{th,j\text{-}c}$)	< 0.02 °C/W
Inductance	< 1nH
Continuous Current	500 A
Static $R_{DS(on)}$ @ 25°C	2.9 mΩ
Static $R_{DS(on)}$ @ 200°C	6.3 mΩ

*Values will vary depending on the die used.







- Die drain and source are both sintered to plates - source and drain pins are Kelvin connections.
- Pins can also carry current if needed – like a standard TO-247.
- The module can withstand sinter pressure and is sinter-able to busbars on both sides.
- Any supplier's die can be packaged into the Power Module.
- No wire bonding inside except for the gate connection.
- Support for different die suppliers requires minimal changes due to modular approach.
- Module size and pin count is flexible, and can be enlarged as needed.
- IGBTs (and flyback diode) can be alternately accommodated in the same module structure.

- Users have option to purchase product or license IP and know-how.