

SimBus A & SimBus F

NEW 17 MM MODULE GENERATION

May 2012

Overview:

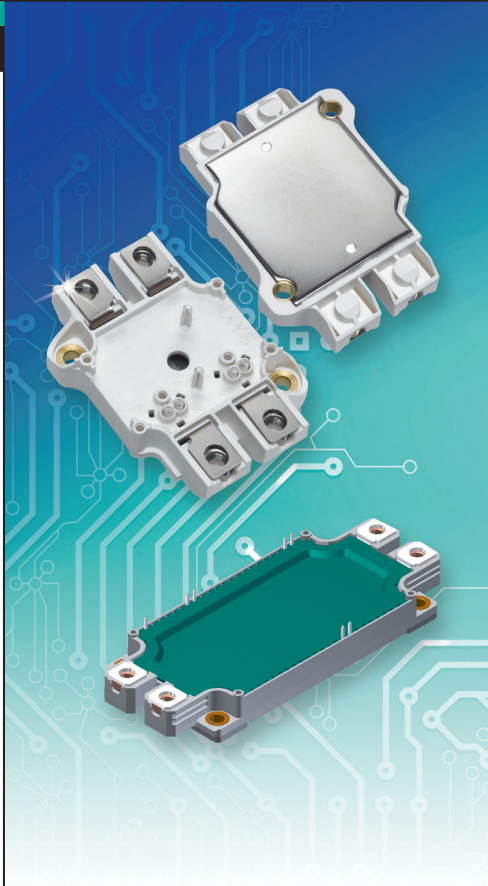
SimBus A and **SimBus F** represent the newest package development of IXYS. This new generation of a DCB-isolated copper base module provides several new features. Combined with the benefits of well-proven technologies **SimBus A** is an optimized semiconductor product for power conversion and rectification applications and **SimBus F** for 2-level and 3-level inverter applications. The outline of both package types go with the industrial standard **height of 17 mm**, the general tendency for power modules making bus bar connections between rectifier and inverter easy. Direct Copper Bonded (DCB) substrates - also manufactured at IXYS - allow the user 4800V isolation voltage from terminals to heatsink.

SimBus A is a module conception for easy and fast mounting. **Spring contacts for the gate terminals** offer a solder-free connection of the control-board. The maximum junction temperature has been extended to 140°C due to the technological improvements for bipolar chips. Combined with the well-proven clip-soldered die-technology of IXYS the top side of the chip is perfectly connected for a perfect thermal management. This allows an extremely high power density that results in a current capability clearly over 250A for the biggest **SimBus A** products. Further it gives always the best ruggedness and performance versus short term power peaks and high surge currents. Common applications for the **SimBus A** are input bridge rectification for AC or DC motor control running off 230 / 400V AC mains supply or for general purpose power conversion equipment.

The first products are the dual thyristor module "MCMA200P1600SA" featuring two thyristors of 200A rating in phase-leg topology, the dual diode version "MDMA200P1600SA" and the thyristor/diode combination "MCMA200PD1600SA" for a more flexible circuit requirement.

SimBus F offers more area than SimBus A and is used as a standard module housing optimized for IGBT phase leg configuration featuring high current density and low stray inductance. Equipped with XPT IGBTs and SONIC free wheeling diodes **SimBus F** gives the customer a reliable solution 100% sourced by IXYS. Common applications for the **SimBus F** are solar and drive inverters, DC DC chopper and UPS power inverter. First products are the dual 450A IGBT module MIXA450PF1200TSF and 300A IGBT module MIXA300PF1200TSF.

Boost configuration and 1700V IGBTs are options.



SimBus A

Applications

- Rectifier Bridges
- Softstarter
- DC motor control
- Power converter
- Heater control

First products

MCMA200P1600SA
MCMA200PD1600SA
MDMA200P1600SA

SimBus F

Applications

- AC motor control
- Servo and robot drives
- Solar inverter
- UPS inverter

First products

MIXA450PF1200TSF
MIXA300PF1200TSF
MIXA225PF1200TSF