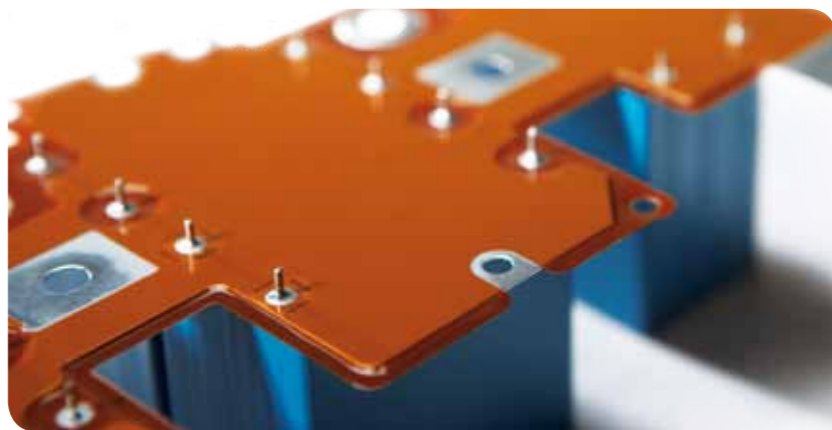


COMBINING
THE BEST OF
BOTH WORLDS!



LIMITATIONS OF A (POWER) PCB:

- ▶ **FLAT DESIGN**
3D capabilities are expensive and not fit with high volumes
- ▶ **STANDARD CURRENT [A] UP TO 100 AMP**
- ▶ **LIMITED THERMAL MANAGEMENT**
Higher current requirements result in more heat, this heat causes cracking, measeling, deburring and ageing of components
- ▶ **COPPER THICKNESS MAXIMUM 400 µM**
Increasing copper thickness is expensive and not fit with high volumes

ADVANTAGES OF A (POWER) PCB:

- ▶ **COMPATIBLE WITH HIGH VOLUME ASSEMBLY PROCESSES**

LIMITATIONS OF A STANDARD BUSBAR:

- ▶ **COMPATIBILITY WITH HIGH VOLUME ASSEMBLY PROCESSES**
Applications for standard busbars are not considered as high volume applications and do not require high volume processes
- ▶ **COPPER THICKNESS FROM 800 µM ONWARDS**
- ▶ **NO STANDARD HIGH VOLUME PRODUCTION PROCESS**
Applications for standard busbars are not considered as high volume applications and do not require high volume processes

ADVANTAGES OF A STANDARD BUSBAR:

- ▶ **3D CAPABILITIES**
- ▶ **OPTIMAL THERMAL MANAGEMENT**

RO-LINX® PowerCircuit™ Busbar combines these advantages and completes the spectrum for current requirement and copper thickness.

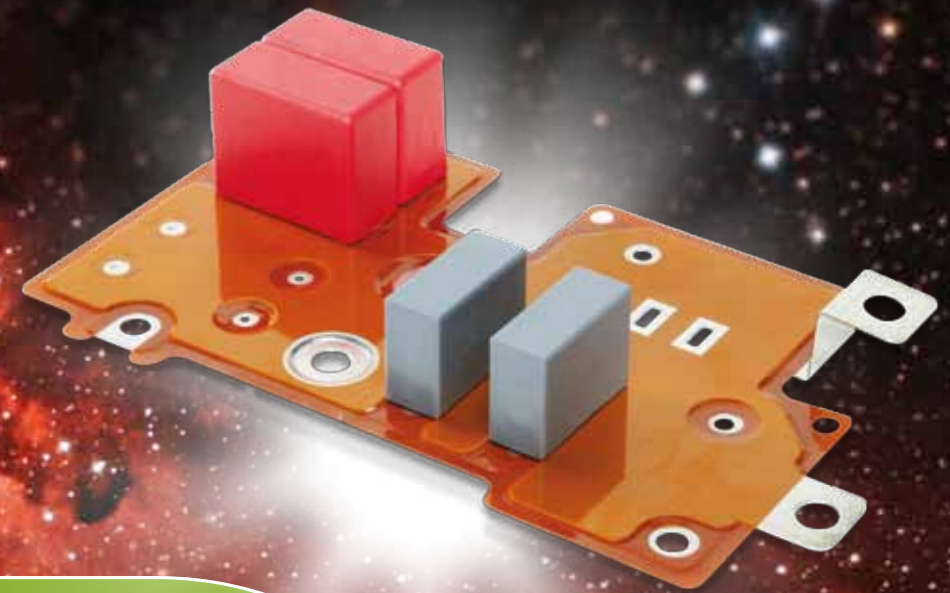


www.rogerscorp.com/pds

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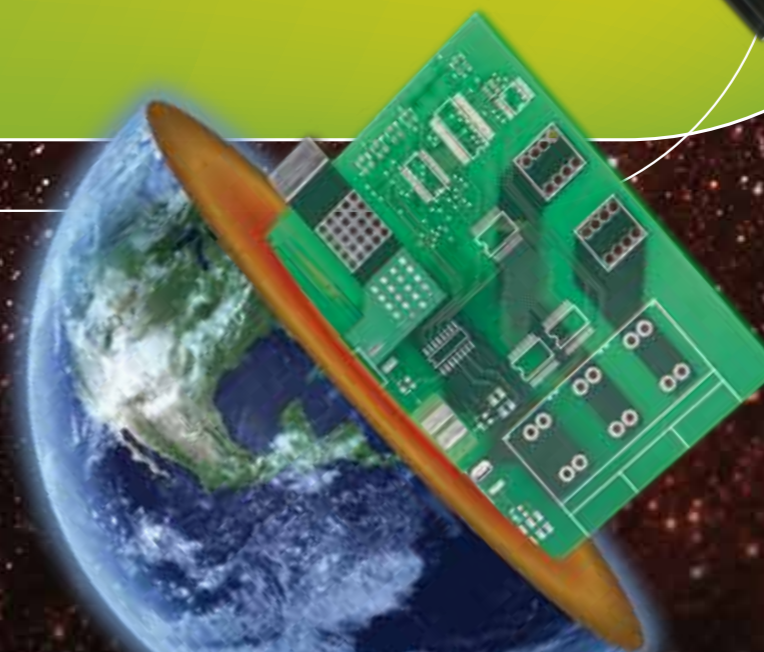
The information contained in this brochure is intended to assist you in designing with Rogers' RO-LINX Busbars. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose or that the results shown in the brochure will be achieved by a user for a particular purpose. The user is responsible for determining the suitability of Rogers' RO-LINX Busbars for each application. The Rogers logo, The world runs better with Rogers. and RO-LINX are licensed trademarks of Rogers Corporation. © 2010 Rogers Corporation. All rights reserved. Publication # 57-003

RO-LINX® PowerCircuit™ Busbars



IT'S ESSENTIAL...

To fill the gap between
(Power) PCB's and
standard Busbars



NEWEST ADDITION TO THE RO-LINX FAMILY: RO-LINX® PowerCircuit™ Busbars

**FILLING THE GAP
BETWEEN
BOTH WORLDS!**

ROGERS CORPORATION'S NEWEST ADDITION TO THE RO-LINX® FAMILY, THE RO-LINX® POWER-CIRCUIT™ BUSBAR, WAS DEVELOPED TO FILL THE GAP BETWEEN (POWER) PCB AND STANDARD BUSBAR TECHNOLOGY.

THE RO-LINX® POWERCIRCUIT™ BUSBAR NOT ONLY COMBINES THE BEST OF BOTH WORLDS:

- ▶ Excellent thermal management
- ▶ Fit high volume assembly processes
- ▶ 3D capabilities

IT ALSO FILLS THE GAPS BETWEEN THE TWO TECHNOLOGIES:

- ▶ Copper thickness (400-800 μm)
- ▶ Current range [A]: 100-500 Amp

NEW MARKETS AND APPLICATIONS

DRIVES AND CONVERTERS FOR:

HEV

- ▶ Motor drives convert the DC input to AC output for the electric motor
- ▶ DC/DC converters convert battery DC input to a lower DC output

SOLAR AND INDUSTRIAL DRIVES

(25kW - 250kW and more than 100A)

- ▶ Commercial Solar inverters not domestic solar solutions
- ▶ Low voltage variable frequency drives (<690V)

HYBRID AND ELECTRIC VEHICLES

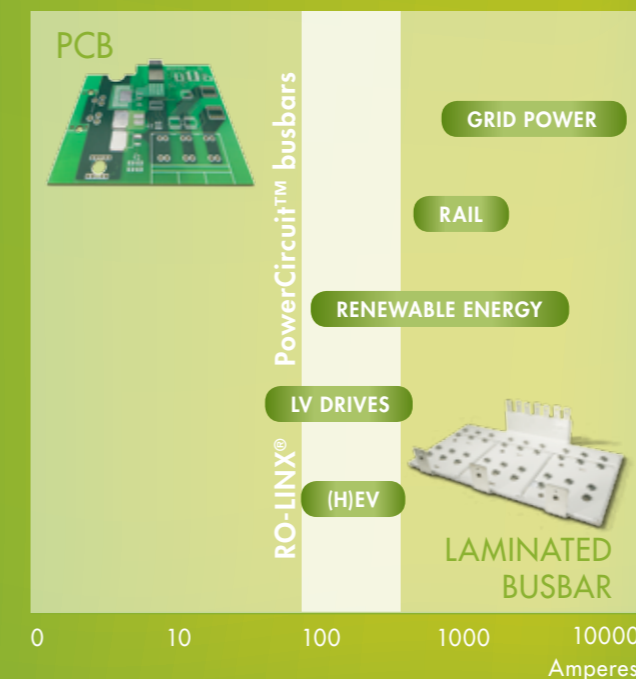


CLEAN TECHNOLOGY

The new markets of Power Electronics in the low voltage range (<690V) are characterized by an increasing need for higher power density, a higher sensitivity for power efficiency due to higher energy costs and the need for more compact designs with 3D requirements. These new challenges must be compatible with high volume assembly processes.

TYPICAL CURRENT FOR VARIOUS POWER ELECTRONICS APPLICATIONS

Circuits for Power Electronics: gap in the current offerings for 100 to 500 Amp.

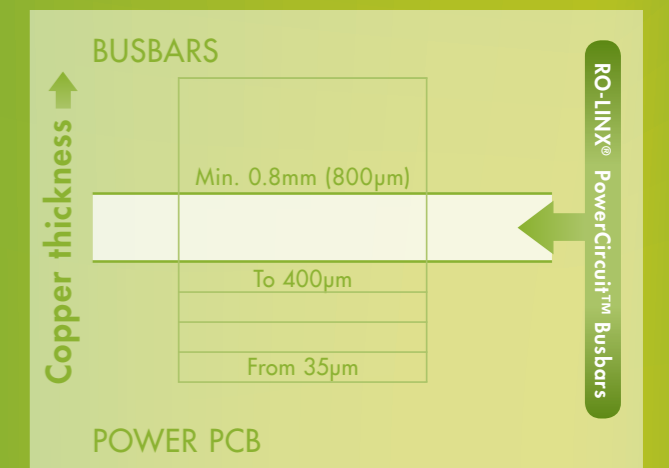


CURRENT [A] LIMITATIONS OF BOTH TECHNOLOGIES

- ▶ Up to 100 Amp for most PCB applications
 - ▶ From 500 Amp onwards for most busbar applications
- => Technology gap for applications between 100 and 500 Amp

TYPICAL COPPER THICKNESS FOR VARIOUS POWER ELECTRONICS APPLICATIONS

Circuits for Power Electronics: gap in copper thickness between 400 and 800 μm



COPPER THICKNESS LIMITATIONS OF BOTH TECHNOLOGIES

- ▶ Maximum copper thickness for standard (Power) PCB's is limited to 400 μm
 - ▶ Minimum copper thickness of most standard busbars is 800 μm
- => Technology gap for copper thicknesses between 400 and 800 μm.