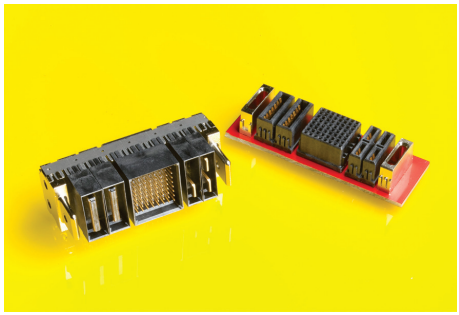
FEATURES AND SPECIFICATIONS

EXTreme PowerMass™ High-Current Assembly Board-to-Board

75541 Vertical Receptacle
75555 Right Angle Plug
45840 Right Receptacle



The **EXTreme PowerMass™ Connector** is the ultimate high-current power interconnect system. Designed as a modular, stiffener based system, EXTreme PowerMass™ is like no other power connector in the industry. Multiple capacity power modules and wide signal count capability allows EXTreme PowerMass™ to put big power where you need it without wasting board space. Robust 150.0, 80.0 and 40.0A, power modules cater to mixed current levels yielding optimal sizing of the connector system. EXTreme PowerMass™ offers up to 380.0 A per inch of PCB real estate while signal modules range from 24 to 64 circuits and hefty, die-cast guidance modules round out the design options. Since EXTreme PowerMass™ can be assembled on a metal stiffener backbone, modules can be placed in any position and just about any centerline spacing giving you complete freedom to pack your design as tightly as possible, or open the spacing between any or all of the modules to enhance system airflow. If your application calls for only one or two modules, EXTreme PowerMass™ modules can be mounted individually without the use of the stiffener.

Features and Benefits

- Up to 380.0A per linear inch at only 25.00mm tall
- Individual modules available with board-mount pegs and sequential mating
- Flexible modular design can accommodate connectors of various lengths
- Rugged stiffener based assembly allows variable pitch module-to-module for maximum airflow considerations
- Durable die-cast aligner guides
- Right-angle receptacles available for 150.0A, 24-circuit signal and aligner guides for co-planer applications

SPECIFICATIONS

Reference Information
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Designed In: Millimeters

Electrical
Voltage:
Signal Module: 250V
150.0A Module: 600V
Multi-Path:
80.0A Module: 450V
40.0A Module: 600V
Current (at 30°C Temperature rise):
Signal Module: 3.0A per circuit (24 to 64 circuits)
150.0A Module: 150.0A
Multi-Path: 40.0A per circuit (4 circuits)
80.0A Module: 40.0A per circuit (2 circuits)
40.0A Module: 40.0A

Contact Resistance (milliohms per blade):

	Initial	End of Life
Signal Module –	10.0	20.0
Multi-Path –	0.55	1.30
150.0A Module –	0.16	0.41
80.0A Module –	0.55	1.30
40.0A Module –	0.55	1.30

Dielectric Withstanding Voltage: No breakdown
Insulation Resistance: 5000 Megohms min.

Mechanical
Mating Force:
Signal Module: 120g (.264 lb) per pin
150.0A Module: 2600g (5.732 lb)
Multi-Path: 2920g (6.437 lb)
80.0A Module: 1460g (3.218 lb)
40.0A Module: 730g (1.609 lb)
Un-mating Force :
Signal Module: 65g (.143 lb)
150.0A Module: 1720g (3.791 lb)
Multi-Path: 1600g (3.527 lb)
80.0A Module: 800g (1.763 lb)
40.0A Module: 400g (.881 lb)
Contact Retention: 225g (.496 lb)
Durability: 50 cycles

Physical
Housing: LCP
Contact: Copper (Cu) Alloy
Plating:
Contact Area — 30µ" Gold min.
Solder Tail Area — 150µ" Tin min.
Underplating — 50µ" Nickel min.
Flammability Rating: UL 94V-0

Documents
Sales Drawings: SD-75555-XXXX, SD-75541-XXXX, SD-45840-XXXX
Product Specs: PS-75431-999
Application Spec: AS-75541-100

ORDERING INFORMATION

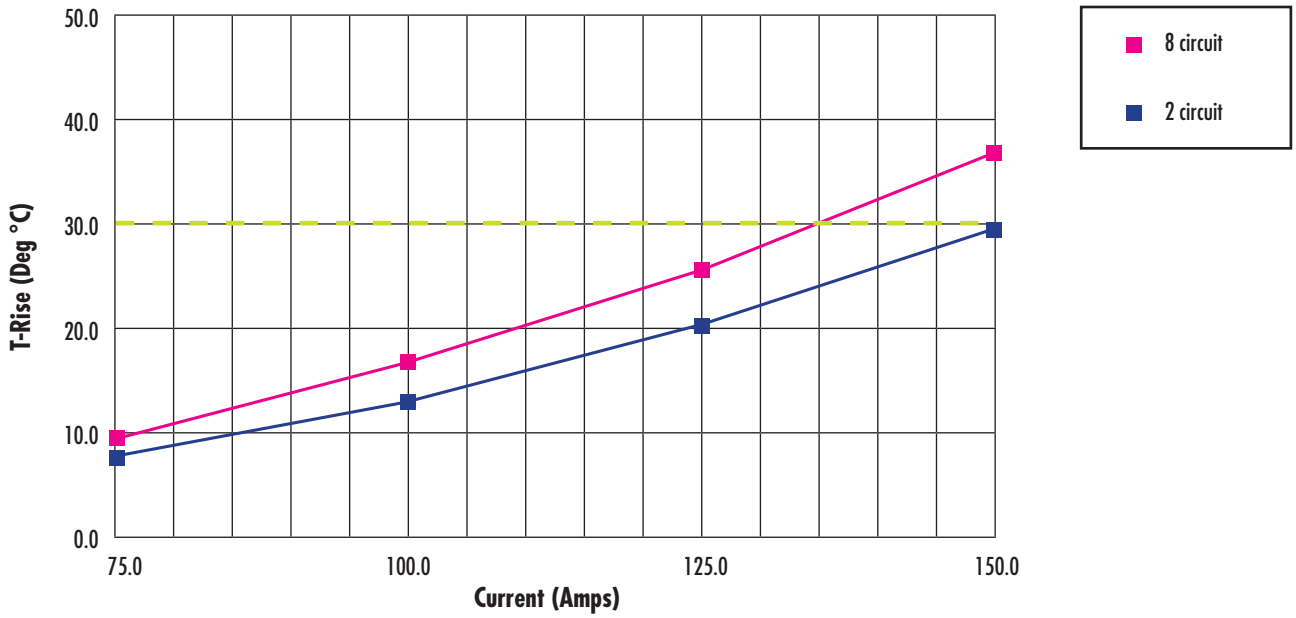
Series*	Description	Modules	PCB Tails
75555	Plug	Signal, 150.0, 80.0 and 40.0A Multi-Path and Die-Cast Aligners	Solder Tail
75541	Vertical Receptacle	Signal, 150.0, 80.0 and 40.0A Multi-Path and Die-Cast Aligners	Press-Fit
45840	Right Angle Receptacle	24-circuit Signal, 150.0A and Plastic Aligners	Solder
46081, 46079, 75542, 75545, 75548, 75556, 75561, 75568	Individual Modules	40.0A, 80.0A, 150.0A, Multi-Path, Signal	Solder Tail, Press-Fit

*Complete part numbers can be found at www.molex.com/link/ext-power.html

EXTreme PowerMass™ High-Current Assembly Board-to-Board

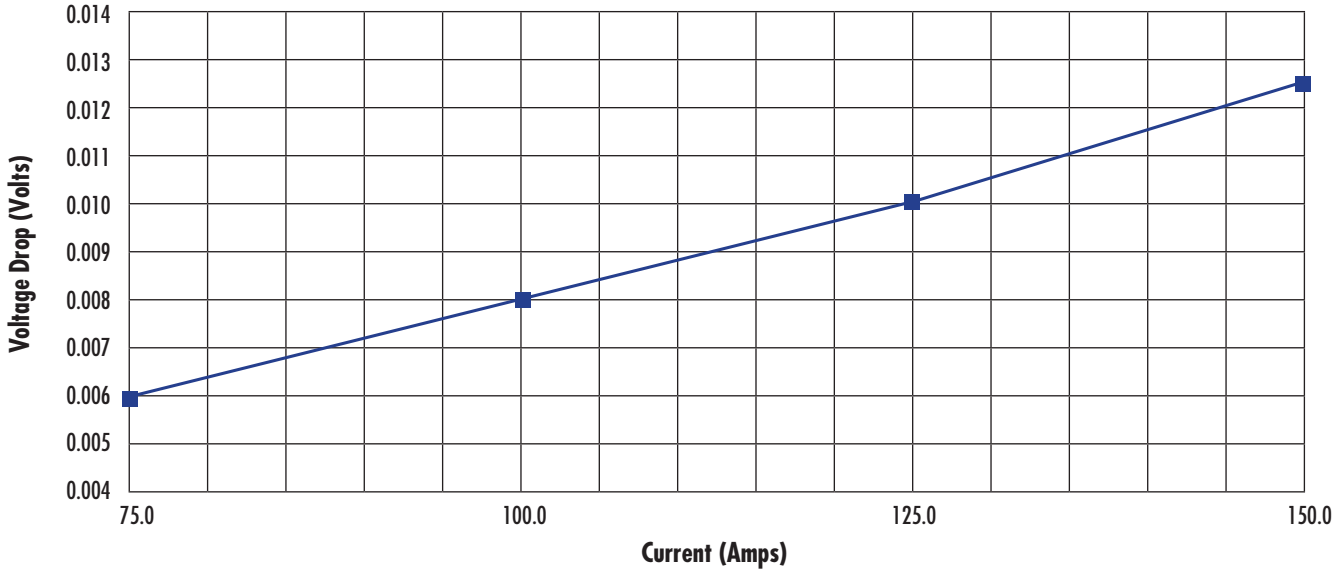
EXTreme PowerMass™ - 150.0 Amp Module

Temperature Rise vs. Current



EXTreme PowerMass™ - 150.0 Amp Module

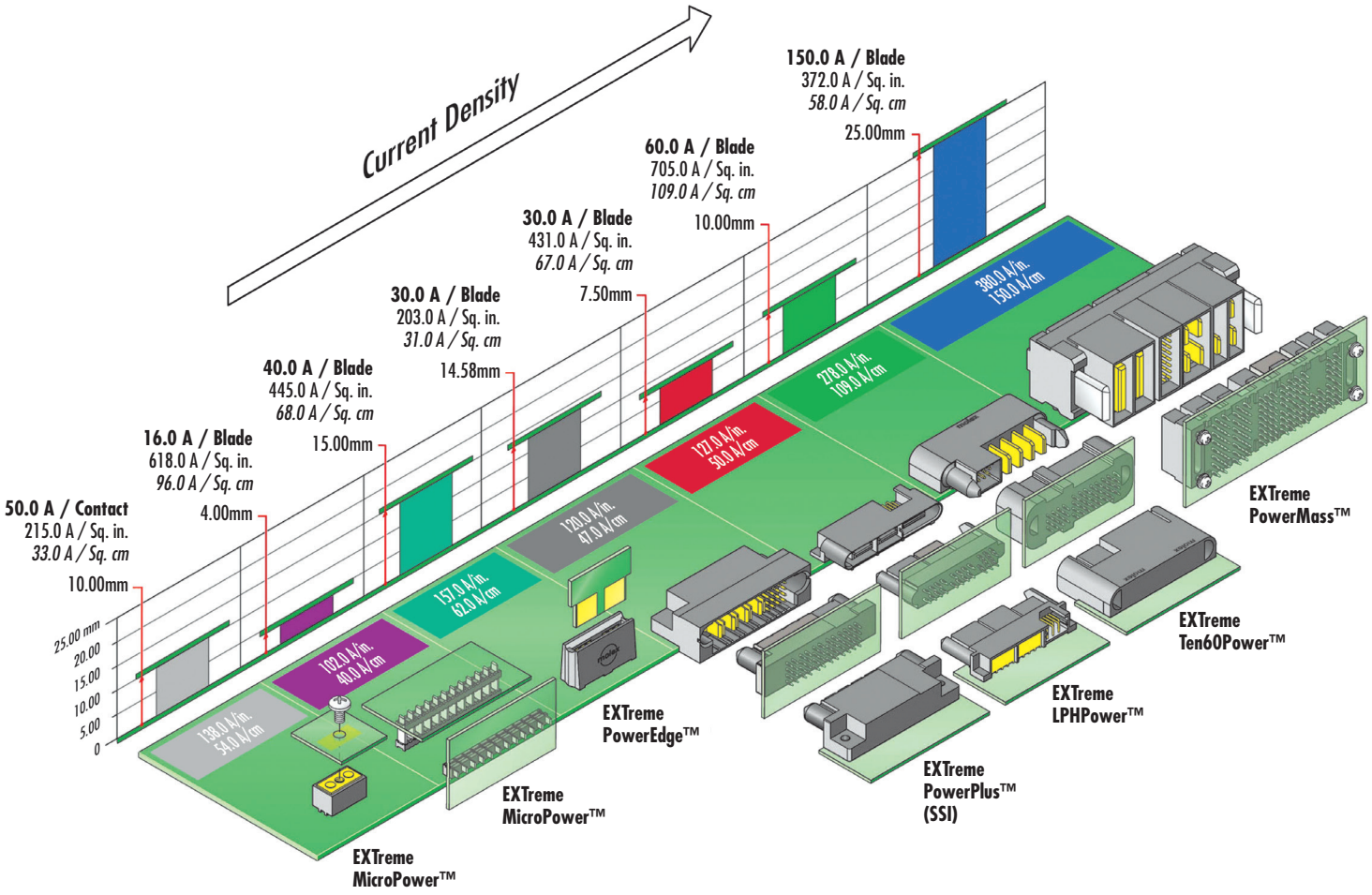
Voltage Drop vs. Current



EXTreme Power® Products

EXTreme Power® Products

The need for high-current power interconnect solutions in increasingly smaller space continues to rise rapidly. Solving this power equation on new architectures and system platforms has been a major focus for Molex product development teams. The new Molex EXTreme Power® family of products is the direct result of listening intently to our customers' electrical and mechanical design challenges. Since no two applications are the same, the Molex EXTreme Power® offering is comprised of several product families that cover a wide range of current densities, mechanical envelopes, mating terminations and configuration choices that give system designers the ability to maximize their power interconnect needs.



www.molex.com/link/ext-power.html

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