

BUSMATE® POWER BUSBAR CONNECTOR SYSTEM

Addresses high-power density connectivity challenges with a pluggable **small footprint, high power density** connector that accommodates **large mating tolerances**, for space savings in robust power applications.



COMPACT SIZE

- › Small size conserves PCB space in assemblies providing lots of flexibility in design options.



HIGH POWER DENSITY CONNECTOR

- › Deliver high current capacity for high-density power applications.



ACCOMMODATES LARGE MATING MISMATCH OR OFFSETS

- › Floating Contact Technology allows for busbar misalignment helps take up stack-up tolerance in subassemblies.

FLOATING CONTACT TECHNOLOGY

- › Accommodates large mating tolerances: offset and angular.
 - › +/- 0.8mm mating blade offset and up to +/- 16 degrees of twist.
- › Handles a range of insertion depths.

BUSBAR CONNECTION

- › Large ampacity-size ratio: 40 to 60 Amp interfaces up to 60 to 80 Amps.
- › Achieves consistent power coupling by automatically compensating for variations in blade alignment.
- › Separable & pluggable: mates with 0.8mm and 1mm thick Busbars.

HIGH PERFORMANCE MATERIALS

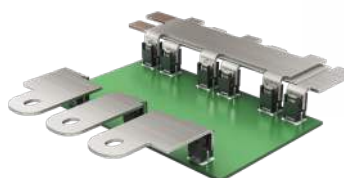
- › High temperature construction, rated to 150°C.

MOUNT OPTIONS

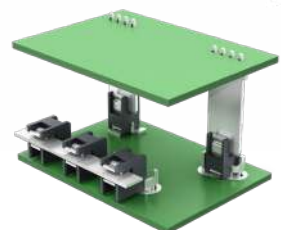
- › PCB Mount: Press-Fit and Surface Mount (SMT).

DESIGN & MANUFACTURING OPTIONS

- › Customizable and scalable.
- › Configurable for: board-to-blade, board-to-board, and blade-to-blade.
- › Options for tape-and-reel packaging to support high-speed automated placement.



BusMate® Connects DC and AC Side Busbar to PCB

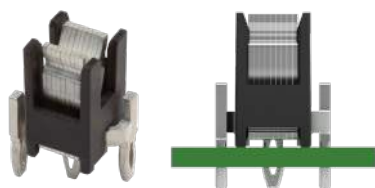


BusMate® Connects Horizontal Busbar to PCB

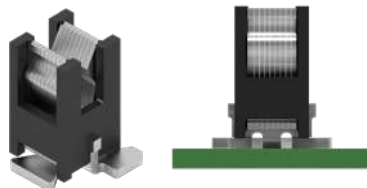
POWER CONNECTOR SOLUTION

BUSMATE® POWER BUSBAR CONNECTOR SYSTEM

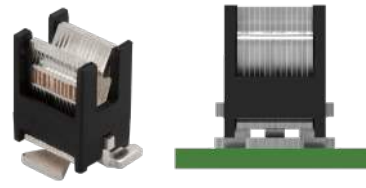
PRODUCT OFFERING



Press-Fit (9 Lam.)
Part No.: IPX-30013
DC Current: 40 – 60Amps
ROA Temperature: 23°C – 50°C



Surface Mount (9 Lam.)
Part No.: IPX-30035
DC Current: 40 – 60Amps
ROA Temperature: 25°C – 53°C



Surface Mount (14 Lam.)
Part No.: IPX-30055
DC Current: 60 – 80Amps
ROA Temperature: 34°C – 59°C
(40Amps at 17°C)

ROA is Rise Over Ambient; Ambient Temperature is 23°C. Test Specifications are listed below.

PERFORMANCE SPECIFICATIONS Test Temperature -40°C to 125°C

Validation Test	Description	Specification	Tests Criteria		Test Results		Conclusion
Insertion Force	9 Lam. PF	Top Mating Busbar	Average:	90N +/- 10N	Average:	90N	Pass
	9 Lam. SMT			70N +/- 10N		72N	
	14 Lam. SMT			100N +/- 10N		98N	
4-Wire Contact Resistance	9 Lam. PF	SAE/USCAR2-6 5.3.1	Max Resistance: less than 1.5mΩ		Max:	0.104mΩ	Pass
	9 Lam. SMT					0.097mΩ	
	14 Lam. SMT					0.077mΩ	
Current Rating	9 Lam. PF	SAE/USCAR2-6 5.3.3	Constant Current at 55°C ROA:	> 40Amps	Average:	> 60Amps	Pass
	9 Lam. SMT			> 60Amps		> 58Amps	
	14 Lam. SMT					> 77Amps	
Current Cycling	9 Lam. PF	SAE/USCAR2-6 5.3.4	ROA at rated current:	< 55°C	Max ROA:	46°C	Pass
	9 Lam. SMT					46°C	
	14 Lam. SMT					42°C	
Mechanical Shock	9 Lam. PF	SAE/USCAR2-6 5.4.6	No discontinuity (1 microsecond increment) Visual Inspection		Not Applicable		Pass
	9 Lam. SMT						
	14 Lam. SMT						
Vibration with Thermal Cycling	9 Lam. PF						Pass
	9 Lam. SMT						
	14 Lam. SMT						
Thermal Shock	9 Lam. PF	GMW3191 4.4.2	Max Resistance: < 1.5mΩ		Max:	0.118mΩ	Pass
	9 Lam. SMT					0.122mΩ	
	14 Lam. SMT					0.084mΩ	
Temperature Cycling with Humidity	9 Lam. PF	SAE/USCAR2-6 5.6.2			Max:	0.136mΩ	Pass
	9 Lam. SMT					0.112mΩ	
	14 Lam. SMT					0.071mΩ	
High Temperature Humidity Exposure	9 Lam. PF	GMW3191 4.4.4			Max:	0.118 mΩ	Pass
	9 Lam. SMT					0.120mΩ	
	14 Lam. SMT					0.087mΩ	
High Temperature Exposure - Dry	9 Lam. PF	SAE/USCAR2-6 5.6.3			Max:	0.121mΩ	Pass
	9 Lam. SMT					0.115mΩ	
	14 Lam. SMT					0.084mΩ	
Mixed Flow Gas	9 Lam. PF	VW75174 EN 60512-11-14	Max:	0.141mΩ	Pass		
	9 Lam. SMT			0.122mΩ			
	14 Lam. SMT			0.094mΩ			

NEED A CUSTOMIZED SOLUTION?

CONTACT US

PF stands for Press-Fit | SMT stands for Surface-Mount Technology.
Note: All testing utilize 0.8mm busbar blade.
Users must always validate and qualify BusMate® in their own application.