

Infineon offers application optimized bipolar power modules introducing cost-effective solder bond modules

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Infineon Technologies AG today launches bipolar power modules in solder bond technology to address the specific requirements of cost-effective applications. With these new PowerBlock modules the company expands its already comprehensive power module portfolio which, so far, was only using pressure contacts. Infineon offers optimized solutions for different applications like industrial drives, renewable energy, soft starters, UPS systems, welding and static switches driven by cost and/or performance restrictions.

With market prices of approximately 25 percent (depending on module/application) less than related pressure contact variants solder bond modules offer significant cost advantages in modules with smaller packages sizes of up to 50mm. The small solder PowerBlock modules are ideal for applications like standard drives or UPS, where the high robustness of pressure contacts is not necessarily a must. Whenever high robustness is a key criterion, like for soft starters or static switches, Infineon offers the pressure contacts as the best solution. For example, in an input rectifier application directly operating under harsh line voltage conditions the requirements for robustness increase with module size, demanding for the highly reliable pressure contact technology.

The new PowerBlock modules are available in package types with base plate widths of 20mm, 34mm or 50mm. For each package five module types for easy rectifier designs (2 x Thyristor/Thyristor TT, 2 x

Thyristor/Diode TD and 1 x Diode/Diode DD) are offered. Infineon is covering the main current ratings per package size; all types are available with 1600V blocking voltage. The company is the only European vendor, offering 20 mm, 34 mm and 50 mm modules for different application requirements – modules in solder bond technology for cost optimized industrial standard solutions and modules in pressure contact technology for high current applications and highest reliability.

The PowerBlock modules with isolated copper base plate provide a lower transient thermal resistance than modules using only a DCB substrate for heat transfer to the heat sink. This leads to higher robustness in case of overload. The optimized housing and cover construction of the PowerBlock solder modules provide a very low torsion during screwing of the main terminals while the modules offer best in class soldering quality. In addition the modules show lowest power dissipation which leads to high system efficiency.

Provided by Infineon

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