



Team Pacific Corporation

An EMS Company

New Concept in Power Semiconductor Packaging

Team Pacific Corporation developed a new leadframe flexible for various application needs for Power Semiconductor Packaging. Typical leadframe is constructed such that one of the terminal lead is directly connected to the base metal where the power semiconductor device is mounted. In this current method there is a limited choice in configuring the lead terminal interconnection as well as limited packaging capability such as power handling capacity, device isolation requirement and power module application. TPC's new power leadframe is constructed such that all lead terminal is not connected to the base metal after final trimming to singulate the components. Base metal are also interconnected with tie bars for expanded packaging application possibilities such as twin transistor outlined packages built as one component or power module application.

Application for Power Semiconductor Packaging

1. Selective Lead Terminal Assignment – Since all terminal leads are isolated with the base metal, one can freely assign which terminal will be used to interconnect to the power semiconductor device being packaged.
2. Increased Terminal Power handling capacity – In a typical three terminal package power semiconductor device, one lead terminal normally limits the current carrying capacity of this component. Using this new leadframe one can assign two terminal leads to one of the power semiconductor junction to increase current carrying capacity.
3. Isolated Device Packaging – Utilizing a metalized substrate mounted by soldering in-between the power semiconductor device and base metal heatsink, one can achieve full isolation of power semiconductor device not possible in a typical three terminal leadframe.
4. Power Module Device Packaging – With terminal leads isolated to the base metal heatsink, it is possible to use this leadframe to package power diodes or rectifier module in isolated and non-isolated components.

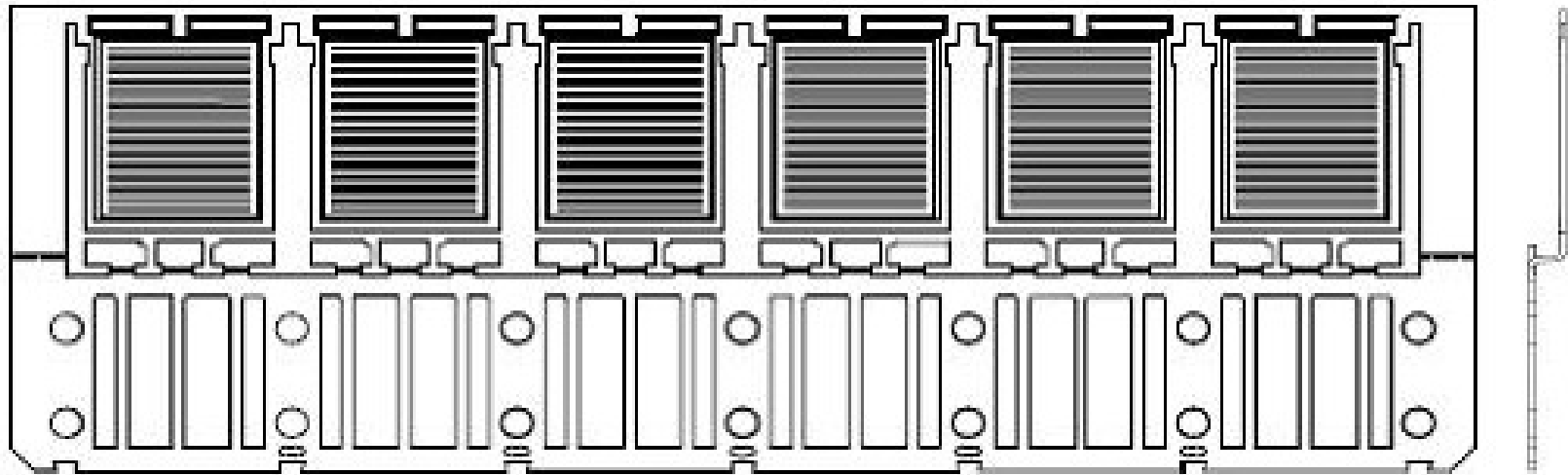
breakthrough power packaging solution



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New Power Leadframe: Flexible Application for Power Semiconductor Packaging



TEAM Pacific Corp. designed Leadframe – “Patent Pending”

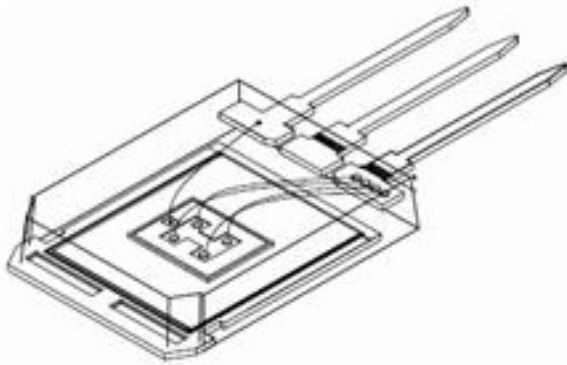
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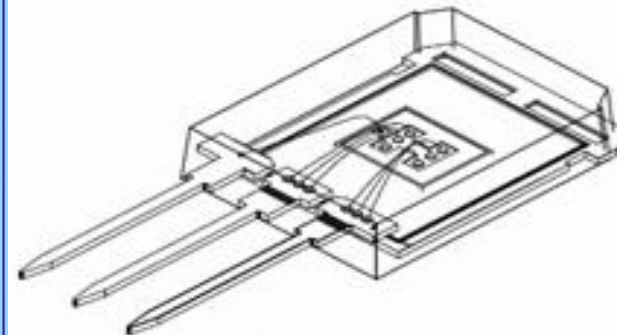
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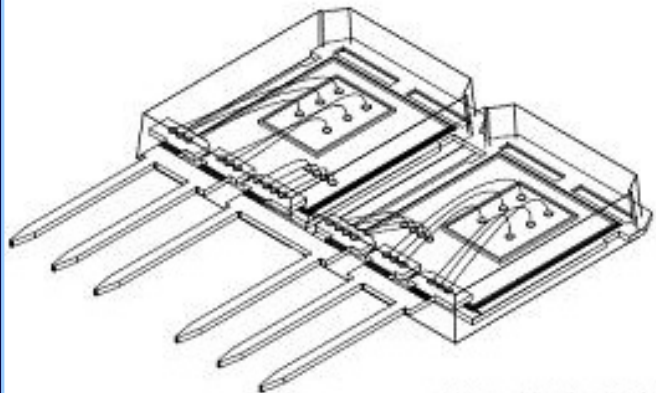
Application Concept for Various Packaging Design



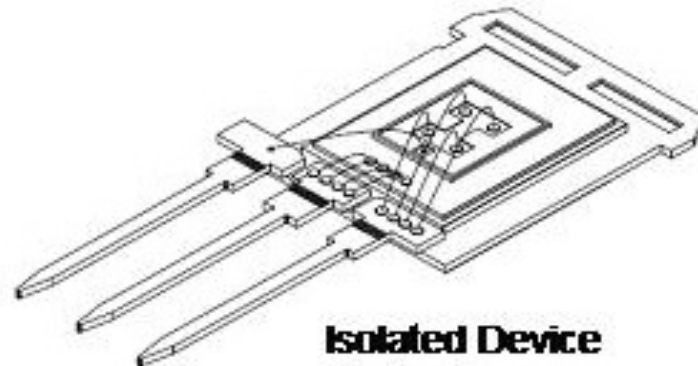
Selective Lead Terminal Assignment



Increased Power Terminal Capacity



Power Module Device Packaging



Isolated Device Packaging

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