Fuji Electric has developed a compact high capacity intelligent power module (IPM)*1 which is ideally suited for large capacity air conditioning systems, industrial inverters, and servo systems.

Applying the 7th generation X series IGBT chip technology to the new IPMs leads to a significant reduction of losses. In combination with the maximized operating temperature due to highly heat resistant packaging technology, using the new IPM series will allow energy savings and miniaturization of your applications.

*1: An IPM is a module which includes three-phase inverter bridge circuit, control circuit and protection circuit.

Package: P633A, P642

Application examples:
Air conditioners, servo system amplifiers, industrial inverters, etc.
1. Reduction of losses by applying 7th generation IGBT technology

Improvement of the $V_{CE(sat)}$ switching loss trade-off by applying Fuji’s latest 7th generation IGBT technology

Inverter loss reduction of 32% compared with previous generation at intermediate loads

**Increased APF performance!**

2. Utilization of an ultra-small DIP package with high heat dissipation aluminum insulating substrate

High heat dissipation aluminum insulating substrate with resin-applied insulation layer

Maximum operating temperature ($T_{vop}$) increased from 125°C to 150°C

**Safety Precautions**

* Before using this product, read the "Instruction Manual" and "Specifications" carefully or consult with the retailer from which you purchased this product to use this product correctly.

* The product must be handled by a technician with the appropriate skills.

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**Product Line-up**

<table>
<thead>
<tr>
<th>$V_{CE}$ (V)</th>
<th>Device type</th>
<th>$I_{C}$ (A)</th>
<th>$V_{CE(sat)}$ typ. (V)</th>
<th>$V_{CE}$ typ. (V)</th>
<th>Overheating protection function</th>
<th>Package</th>
<th>Guaranteed operating range</th>
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<tr>
<td>650</td>
<td>6MBP50XTA065-50</td>
<td>50</td>
<td>1.30</td>
<td>1.55</td>
<td>No</td>
<td>P642</td>
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<tr>
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<td>6MBP50XTCA065-50</td>
<td>75</td>
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<td>T_{vop} \leq 150°C</td>
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<td>P633A</td>
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**Internal equivalent circuit : P642**

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