DESCRIPTION
Lingsen’s IGBT module is a DBC based, silicon dielectric gel encapsulated package. It is available in half-bridge circuit structure or can be customized to individual or automobile customer needs. It is widely used for motor drives, commercial agriculture vehicles and UPS system.

APPLICATIONS
- Motor drive and inverter.
- UPS and DC power.
- EV/HEV charger

SPECIFICATIONS
DBC: 0.635 or 0.38 core material
Die Attach: SAC305 or equilibrium
Alumina Wire: 99.99% Al.
Dielectric material: SYLGARD 527
Base plate: Copper with Nickel plating
Marking: Laser.

FEATURES
- Meet automobile or industrial material level requirements.
- Fast switching speed.
- Low conduction loss
- Soft turn-off performance.
- High isolation voltage.

PACKAGE AVAILABILITY
<table>
<thead>
<tr>
<th>Package Size</th>
<th>Vces(min.)</th>
<th>Ic</th>
</tr>
</thead>
<tbody>
<tr>
<td>(mm)</td>
<td>(V)</td>
<td>(A)</td>
</tr>
<tr>
<td>62x122</td>
<td>600</td>
<td>450</td>
</tr>
</tbody>
</table>

RELIABILITY
- High temp. storage: 150°C, 1000 hrs.
- Temp. cycling: -40/125°C, 1000 cycles
- Autoclave: 121°C/100%RH, 96 hrs.
THERMAL PERFORMANCE

<table>
<thead>
<tr>
<th>Package</th>
<th>Body size (mm)</th>
<th>Pad size (mm)</th>
<th>Die size (mm)</th>
<th>Thermal Performance $\psi_{ja}$ (℃/W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>62x122</td>
<td></td>
<td>IGBT 13.5x13.5/Diode 10x10</td>
<td>Rjc &lt;0.3</td>
<td></td>
</tr>
</tbody>
</table>

ELECTRICAL PERFORMANCE

<table>
<thead>
<tr>
<th>Package</th>
<th>Body size (mm)</th>
<th>Pad size (mm)</th>
<th>Frequency (MHz)</th>
<th>Self inductance (nH)</th>
<th>Self capacitance (pF)</th>
<th>Resistance (mohm)</th>
</tr>
</thead>
</table>

CROSS-SECTION

Diode chip
IGBT or MOSFET chip
Solder
Solder
DBC
Copper base plate