Generic specification

Baseplate flatness of power modules

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Otherwise indicated on the module datasheet, the baseplate flatness is defined by the following :

Overall convex shape :

Module is designed to get an overall convex shape of the baseplate in order to improve the contact with the heatsink after mounting. The convex shape is tested by measuring the bow between the middle of the module baseplate and the surround (measurement in the Length and the Width of the base, as shown on Fig. 1)

Due to the specificity of each design, (substrates layout, die location, die size), some cavities can occur in the profile of the baseplate, observed from the bottom. These cavities have very limited depth due to the overall shape of the baseplate and will have insignificant impact on module performance due the materials characteristics, assuming that the module is mounted onto the heatsink according our mounting recommendations (aspects of silicone grease, heatsink flatness, mounting torque, etc …)

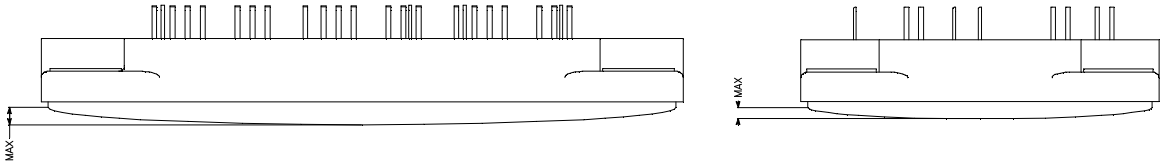

Fig. 1

Maximum convexity per package type, for modules built with copper baseplate : (values in µm)

Package	In Length	In Width
J1	120	40
J3	140	80
LP2	110	50
LP4	100	80
LP8	140	110
LP8W	140	110
SP3	90	50
SP4	120	50
SP6	140	80
SP6-P	140	80

Values for E2 E3 P2 P3 and D1 D3 D4 are specifically defined in the module datasheet