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Microsemi®
POWER PRODUCTS GROUP
POWER MODULE PRODUCTS

To the attention of : **Purchasing & Manufacturing Process Departments**

Date: October 17th, 2012

Change Notification #ECN12083: Change of encapsulation method for modules built in LP4 package

Dear Valuable Customer,

Your company has Critical Process Change Notification requirements on products that you buy from MICROSEMI. This letter is to notify you that we are changing the encapsulation method of the Modules realized for you in LP4 package.

The final resin layer used to package the current LP4 modules is replaced by a hard top plastic cover as used already in our other package types as the SP1, SP3, SP4 and SP6-P.

The purpose of this change is the standardizing of the raw materials, implementing of the optional laser marking and to decrease volume of chemical compounds in our products for Environmental and Logistics reasons.

The product your company is purchasing to MICROSEMI that is affected by this change are listed below in annex#1.

Impact on the quality and reliability of the products has been reviewed in details; results of our internal manufacturing qualification process are confirming that we can proceed to this change without impacting the quality and reliability of the products.

MICROSEMI values you as an important customer. Please contact your Local Sales Representative or myself if you have any questions or require any additional information.

Sincerely,

Jean Christophe Lafenêtre
Quality Manager, Power Modules
MICROSEMI Power Products Group

Products Affected by Change:

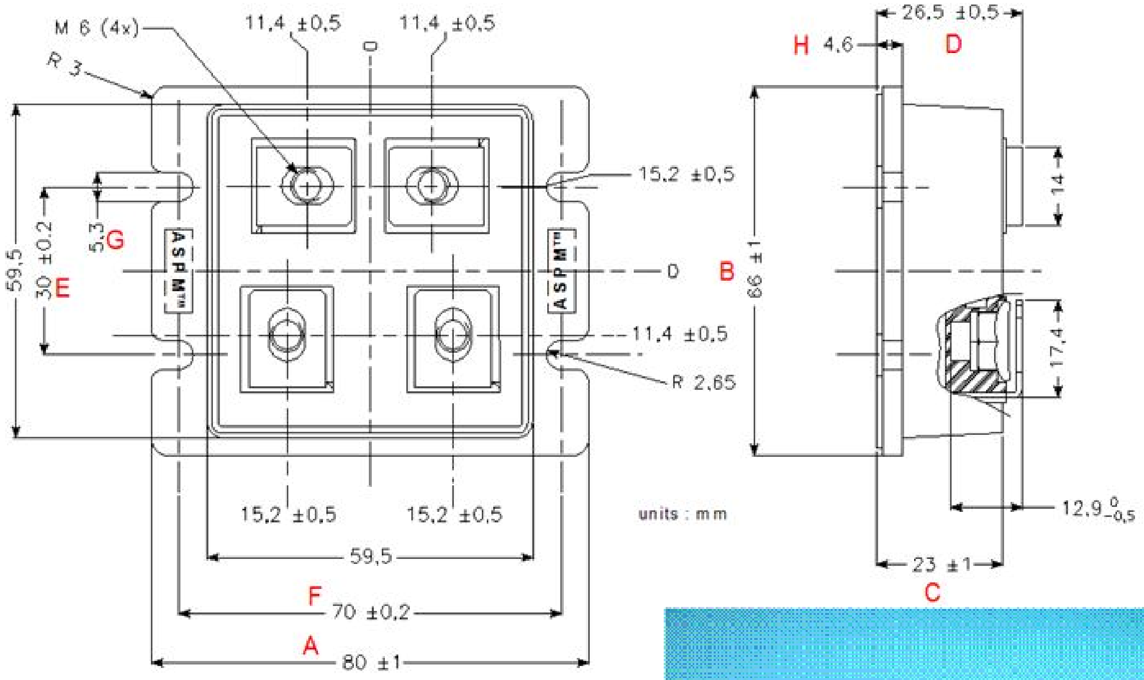
- LP4 package

Description of Change:

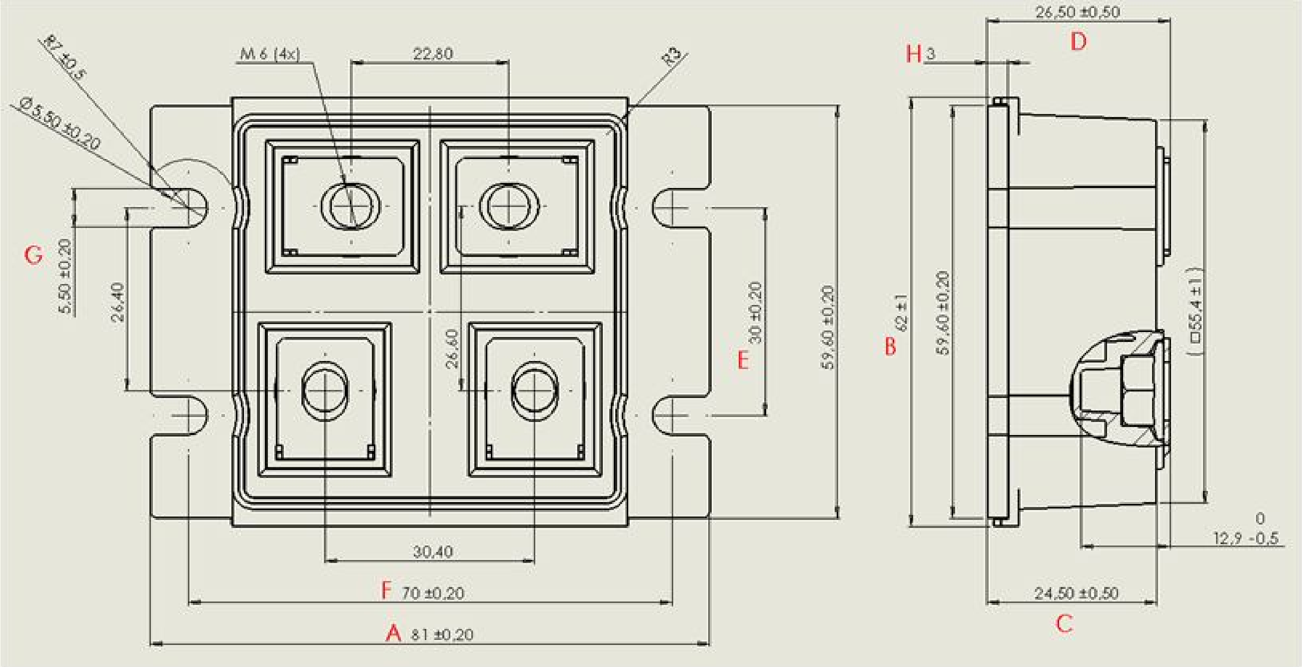
- Remove epoxy resin fill in layer
- Add hard top plastic cover
- White color package instead of black
- Possibility of laser marking depending on assembly location

LP4 package change		Old	New
A	External dimension length	80±1mm	81±0,2mm
B	External dimension width	66±1mm	62±1mm
C	Plastic case height	23±1mm	24,5±0,5mm
D	Terminal height	26,5±0,5mm	26,5±0,5mm
E	Mounting distance	30±0,2mm	30±0,2mm
F	Mounting distance	70±0,2mm	70±0,2mm
G	Mounting hole	Ø5,3mm	Ø5,5±0,2mm
H	Fixation height	4,6mm	3mm

Old LP4



New LP4



Reasons for Change:

- Standardization of raw material
- Laser marking compatibility
- Reducing chemical compounds all through supply chain for environmental and logistics reasons.

Product Identification:

Product part numbering is unchanged.
Our traceability system allows to permanently trace the process flow used for a given module.

Qualification:

- The raw material PBT 30% GF is in line with the other modules we produce since years.
- For LP4 package, Pull test, flatness monitoring and Sticker Adhesion Test and laser marking have been performed with success.
- The die and the electrical configuration, the assembly technology, the mechanical characteristics remain the same.

Impact of quality or reliability :

None

Sample Availability :

None

Implementation Date:

November, 6th 2012

ANNEX #1

P/N
APTDF400U120G
APTDF430U100G
APTDF450U60G
APTDF500U40G
APTDF500U20G
APTDR450U170G