Microsemi
a Microchip company

To whom it might concerns:

Purchasing & Manufacturing Process Departments

Date: June 2019

PCN#19-011 : Silicon Diode die change on APTDF400xx170G standard products

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 the Die used in the Module realized for you becomes obsolete.

The products your company is purchasing to MICROSEMI that are affected by this change are listed below.

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

Microsemi
a MICROCHIP company

Products Affected by Change:
APTDF400AA170G
APTDF400AK170G
APTDF400KK170G

Description of Change:
The silicon diode die used in the listed power module devices becomes obsolete and will be replaced by a new (active) version.
Main electrical characteristic differences are listed hereafter:

Parameter	Before change	After change
Maximum average forward current	IF=400A @ Tc=55°C	IF=400A @ Tc=25°C
Forward voltage	VF=2,2V typ, 2,5V max at IF=400A and Tj=25°C	VF=1,8V typ, 2,2V max at IF=400A and Tj=25°C
Maximum reverse leakage current	IRM max =750µA at VR=1700V and Tj=25°C	IRM max =150µA at VR=1700V and Tj=25°C
Reverse recovery time	Trr=704ns typ @ IF=400A & VR=900V and Tj=125°C	Trr=525ns typ @ IF=400A & VR=900V and Tj=125°C
Reverse recovery charge	Qrr= 140µC typ @ IF=400A & VR=900V and Tj=125°C	Qrr= 173µC typ @ IF=400A & VR=900V and Tj=125°C
Junction to case thermal resistance	Rthjc max= 0,095°C/W	Rthjc max= 0,114°C/W

The datasheets associated to these products will be updated as soon as possible on the Microsemi website

Reasons for Change:
The silicon diode die used so far becomes obsolete

Product Identification:
No change

Impact of quality or reliability:
No impact to quality or reliability

Implementation Date:
June 2019