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Catania, Sept 13 2019

Automotive Discrete Group (ADG) Power Transistor Macro-Division LV & Body Smart Power Macro-Division

Process Change Notification

I²PAK, IPAK, Max247, Short IPAK, TO-220, TO-247 New Molding Compound Shenzhen (China) - Bouskoura (Marocco) - Tongfu Microelectronics (China) INDUSTRIAL

Dear Customer,

Following Samsung SDI production discontinuation announcement, followed by ST Corporate Advance Notification PCI CRP/19/11478, sent in April 2019, <u>this document is announcing the new molding compound for all products assembled in I²PAK, IPAK, Max247, Short IPAK, TO-220 and TO-247 package, manufactured in the plant of Shenzhen (China), Bouskoura (Marocco) and our Subcontractor Tongfu Microelectronics (China).</u>

The new molding compound, guarantees the same quality and electrical characteristics as per current production, products is in full compliance with the ST ECOPACK®2 grade (Halogen Free).

The test vehicles involved in the qualification are listed in the following tables:

High Voltage Business Unit								
Technology	Test Vehicle	Package	Assy Plant	End of Qual.				
MDmesh™ M2	STI24N60M2	I ² PAK	Shenzhen	Wk 38/19				
MDmesh™ II	STU7NM62N-H	IPAK	Tongfu Microelectronics	Wk 37/19				
MDmesh™ M5	STY139N65M5	Max247™	Tongfu Microelectronics	Wk 44/19				
MDmesh™ II	APP762NF1	Short IPAK	Tongfu Microelectronics	Wk 37/19				
FDmesh™ II	STP13NM60ND	TO-220	Shenzhen	Wk 37/19				
MDmesh™ II	STP26NM60N	TO-220	Tongfu Microelectronics	Wk 44/19				
MDmesh™ K5	STP4N80K5	TO-220	Shenzhen	Wk 37/19				
SuperFREDmesh™	STP5NK52ZD	TO-220	Bouskoura	Wk 42/19				
MDmesh™ K3	STP6N120K3	TO-220	Shenzhen	Wk 37/19				
MDmesh™ K5	STP6N95K5	TO-220	Bouskoura	Wk 42/19				
MDmesh™ M2	STW40N60M2	TO-247	Tongfu Microelectronics	Wk 40/19				
MDmesh™ DM2	STW48N60DM2	TO-247	Tongfu Microelectronics	Wk 44/19				

Low Voltage Business Unit								
Technology	Test Vehicle	Package	Assy Plant	End of Qual.				
STripFET™ II	STD12NF06L-1	IPAK	Tongfu Microelectronics	Wk 37/19				
STripFET™ F6	STP105N3LL	TO-220	Shenzhen	Wk 37/19				
STripFET™ F6 P-Channel	STP10P6F6	TO-220	Bouskoura	Wk 42/19				
STripFET™ F6	STP110N8F6	TO-220	Tongfu Microelectronics	Wk 44/19				
STripFET™ F3	STP180N10F3	TO-220	Shenzhen	Wk 37/19				
STripFET™ F7	STP270N8F7	TO-220	Shenzhen	Wk 37/19				
STripFET™ II	STP55NF06	TO-220	Bouskoura	Wk 42/19				
STripFET™ II	STP75NF20	TO-220	Shenzhen	Wk 37/19				

IGBT & IPM Business Unit

Technology	Test Vehicle	Package	Assy Plant	End of Qual.
IGBT Planar	STGP10NC60KD	TO-220	Shenzhen	Wk 37/19
IGBT, Trench gate field-stop	STGP30M65DF2	TO-220	Shenzhen	Wk 37/19
IGBT Planar	STGP3HF60HD	TO-220	Shenzhen	Wk 37/19
IGBT Planar	STGW39NC60VD	TO-247	Shenzhen	Wk 38/19
IGBT, Trench gate field-stop	STGW80H65DFB	TO-247	Shenzhen	Wk 38/19
Power BIPOLAR	BULD118D-1	IPAK	Tongfu Microelectronics	Wk 37/19
Power BIPOLAR	TIP102	TO-220	Tongfu Microelectronics	Wk 44/19
Power BIPOLAR	TIP31C	TO-220	Shenzhen	Wk 37/19
Power BIPOLAR	TIP35C	TO-247	Tongfu Microelectronics	Wk 44/19

Any other Product related to the above series, even if not expressly included or partially mentioned in the attached table, is affected by this change.

Qualification program and results availability:

The reliability test report plan is provided in attachment to this document.

Samples availability:

Samples of the test vehicle devices will be available on request starting from week 38-2019. Any other sample request will be processed and scheduled by Power Transistor Division upon request.

Change implementation schedule:

The production start and first shipments will be implemented after week 50 of 2019, after stock depletion. Delivery of current products will be done until stock depletion of old molding compound.

This is a very special Process Change, the PCN approval has to be as fast as possible. Due to the current market conditions and the large space occupied by the old resin, we are unable to do enough stock.

Marking and traceability:

Unless otherwise stated by customer specific requirement, traceability product assembled in with new molding compound, will be ensured by Q.A. number.

Yours faithfully.