		<b>APPLICATION FOR EXTENSION OF ESCC QUALIFICATION APPROVAL</b>			Page 1
Component Title: Bipolar (PN) Power Diodes based on type BYV, BYW and STTH		Executive Member: CNES			Date: 18/10/2018
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Components (including series and families) submitted for Extension of Qualification Approval:					
ESCC COMPONENT NO.	VARIANTS	RANGE OF COMPONENTS	BASED ON	TEST VEHICLE / S	COMPONENT SIMILAR
5103/029	05, 07, 08	TO254, SMD0.5	BYW81-200	ID33518002ZW SMD.5	
5103/031	02, 05	TO254, TO254AA	BYV54-200	ID3360900301 TO254AA	
5103/032	01	SMD1	STTH60400	ID33621007ZZ SMD1	
2		3		4	
Component Manufacturer STMicroelectronics		Location of Manufacturing Plant(s) 3, rue de Suisse BP4199, 35041 Rennes Cedex		Date of original qualification approval: Date: 01/08/2003  Certificate Ref No. 274	
5		6		7	
ESCC Specifications used for Maintenance of qualification testing: Generic: 5000 Issue: 3  Detail(s): 5103/029 Issue: 9 5103/031       7 5103/032       1		Deviations to LVT testing and Detail Specification used: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (supply details in Box 15)  Deviation from current Specifications:  No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> (Supply details)		Qualification Extension Report reference and date: BYW81-200SG Lot ID33518002ZW_Chart F4 8/2/17 BYV54S200HYG Lot ID3360900301_Chart F4 8/12/17 STTH60400SAG3 Lot ID33621007ZZ_ChartF4_Sg2 4/5/17 Evaluation report STTH60400: RNS/SS/18-024-01	
8					
Summary of procurement or equivalent test results during current validity period in support of this application (those to ESCC listed first)					
Project Name	Testing Level	LAT	Date code	Quantity Delivered	
See Appendix					
9		10			
PID changes since start of qualification None <input type="checkbox"/> Minor* <input checked="" type="checkbox"/> Major* <input type="checkbox"/> *Provide details in box:		Current PID Verified by: CNES Name of Executive Representative Ref No: 8097046 (generic) Rev 20 and 8122351 (specific Power Rectifier and Schottky Diodes) rev 13 Issue: Date: 14/10/2018 Rev Date:			
11					
Current Manufacturing facilities surveyed by: CNES on 02/10/2018 (Name of Executive Representative) (Date)					
Satisfactory: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Explain					
Report Reference: CR-Activités ST Octobre 2018					



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Failure Analysis, DPA, NCCS available: Yes ☐ No ☒ (Supply data)

Ref. No's and purposes:

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The undersigned hereby certifies on behalf of the ESCC Executive - that the above information is correct; - that the appropriate documentation has been evaluated; - that full compliance to all ESCC requirements is evidence (except as stated in box 15;) - that the reports and data are available at the ESCC Executive and therefore applies on behalf of CNES as the responsible Executive Member for ESCC qualification status to be extended to the component(s) listed herein.

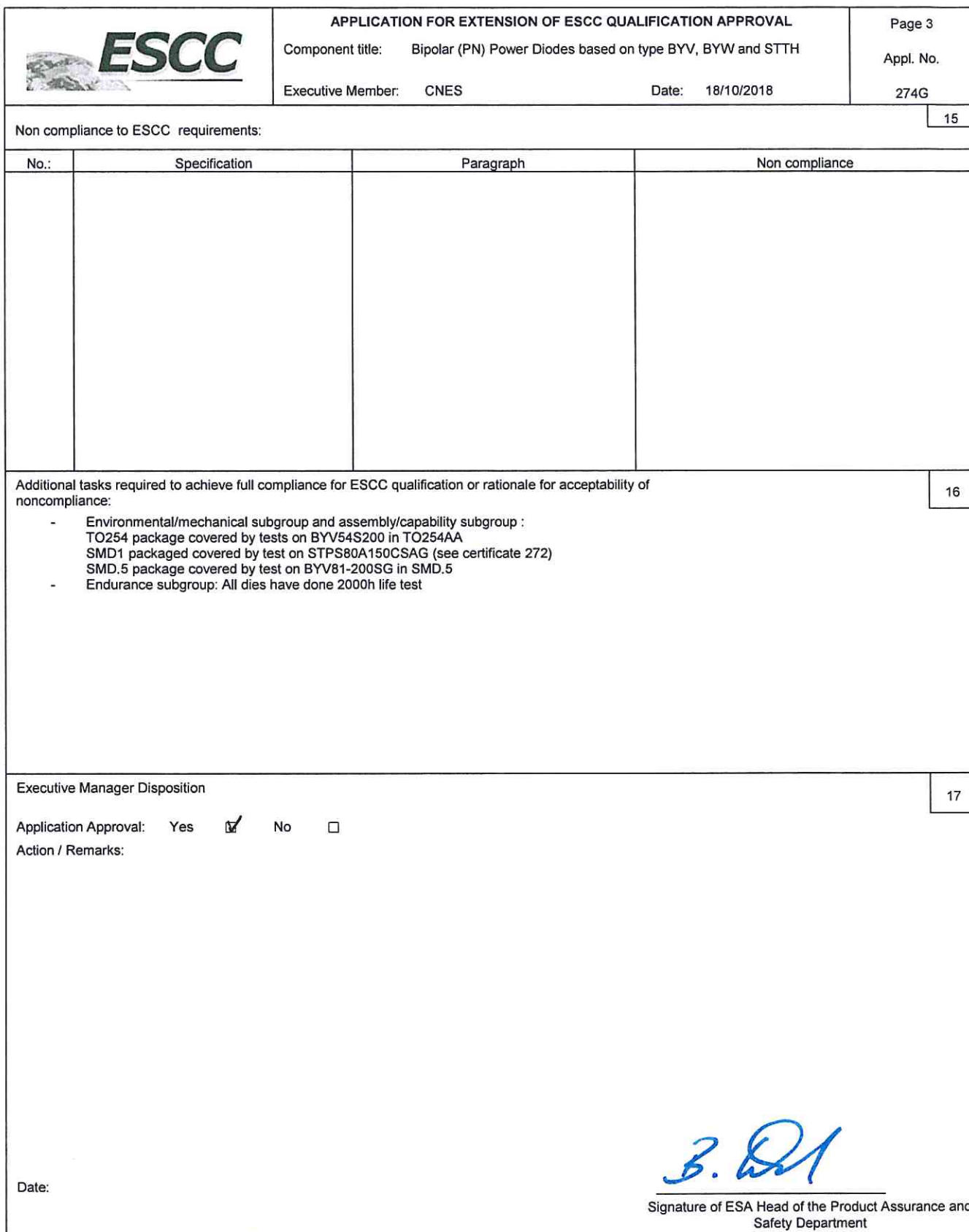
Date: 22/10/2018

JP. BUSSENOT

(Signature of the Executive Coordinator)

Continuation of Boxes above:

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## ANNEX 1: LIST OF TESTS DONE TO SUPPORT EXTENSION OF QUALIFICATION

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Tests conducted in compliance with:

- ESCC 5000 generic specification; Chart F4 (for ESCC/QPL parts);
- or PID-TFD (for ESCC/QML parts)

Tests vehicle identification/description:

BYW81-200SG Lot ID335118002ZW_Chart F4 DC1612	STTH60400CSAG3_Chart F4 Sg2 DC1637
BYV54S200HYG Lot ID3360900301_Chart F4 DC1712	

Detail Specification reference:

Chart F4	Test	Tick when done	Conditions	Date Code Diffusion Lot	Tested Qty	N° of Rejects	Comments if not performed. Comments on Rejection
Environmental/Mechanical Subgroup	Mechanical shock	<input checked="" type="checkbox"/>	MIL-STD-750 TM2016	1612 1712	15 + 15	0	
	Vibration	<input checked="" type="checkbox"/>	MIL-STD-750 TM2056	1612 1712	15 + 15	0	
	Constant acceleration	<input checked="" type="checkbox"/>	MIL-STD-750 TM2006	1612 1712	15 + 15	0	
	Seal Fine leak Gross leak	<input checked="" type="checkbox"/>	MIL-STD-750 TM1071	1612 1712	15 + 15	0	
	Electrical Measurement	<input checked="" type="checkbox"/>	Intermediate and End-Point Electrical Measurements	1612 1712	15 + 15	0	
	External Visual	<input checked="" type="checkbox"/>	ESCC Basic Spec 20500	1612 1712	15 + 15	0	
	Thermal shock	<input type="checkbox"/>	MIL-STD-750 TM1056	Click here to enter text.			Only applicable to axial lead glass diodes
	Temperature Cycling	<input checked="" type="checkbox"/>	MIL-STD-750 TM1051	1612 1712	15 + 15	0	
	Moisture Resistance	<input checked="" type="checkbox"/>	MIL-STD-750 TM1021	1612 1712	15 + 15	0	
	Seal Fine leak Gross leak	<input checked="" type="checkbox"/>	MIL-STD-750 TM1071	1612 1712	15 + 15	0	
	Electrical Measurement	<input checked="" type="checkbox"/>	Intermediate and End-Point Electrical Measurements	1612 1712	15 + 15	0	
	External Visual	<input checked="" type="checkbox"/>	ESCC Basic Spec 20500	1612 1712	15 + 15	0	
Endurance Subgroup	Operating Life	<input checked="" type="checkbox"/>	ESCC 5000 Para. 8.19	1612 1712	15 + 15 +15	0	
	Electrical Measurement	<input checked="" type="checkbox"/>	Intermediate and End-Point Electrical Measurements	1612 1712	15 + 15 +15	0	
	Seal Fine leak Gross leak	<input checked="" type="checkbox"/>	MIL-STD-750 TM1071	1612 1712	15 + 15 + 15	0	
	External Visual Inspection	<input checked="" type="checkbox"/>	ESCC Basic Spec 20500	1612 1712	15 + 15 +15	0	
Assembly Capability Subgroup	Permanence of Marking	<input type="checkbox"/>	ESCC Basic Spec 24800				Not applicable on Laser marking
	Terminal Strength	<input checked="" type="checkbox"/>	ESCC 5000 Para. 8.18	1612 1712	5 + 5	0	
	Internal Visual	<input checked="" type="checkbox"/>	ESCC Basic Spec 20400	1612 1712	5 + 5	0	
	Bond Strength	<input checked="" type="checkbox"/>	MIL-STD-750 TM 2037	1612 1712	3 + 3	0	
	Die Shear	<input checked="" type="checkbox"/>	MIL-STD-750 TM 2017	1612 1712	3 + 3	0	



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Chart F4	Test	Tick when done	Conditions	Date Code Diffusion Lot	Tested Qty	N° of Rejects	Comments if not performed. Comments on Rejection
Additional Tests		<input type="checkbox"/>					
		<input type="checkbox"/>					
		<input type="checkbox"/>					

