nexperia.com

Product Change Notification	CN-202602011F

Issue date: 10 Jun 2026

Effective date: 22 Sep 2026

Dear productchangenotices@premierfarnell.com,

Here's your personalized quality information concerning products our customers and partners purchased from Nexperia.

For more details please contact your respective Nexperia CSR/AM.

Release of 8 inch wafer diameter and copper wire for low VCEsat transistors in SOT457

Change Category

[X] Wafer Fab Process	[X] Assembly Process	[ ] Product Marking	[ ] Test Location	[X] Design
[X] Wafer Fab Materials	[X] Assembly Materials	[ ] Mechanical Specification	[ ] Test Process	[ ] Errata
		[ ] Packing/Shipping/Labeling	[ ] Test Equipment	[ ] Electrical spec./Test coverage

[ ] Wafer Fab Location	[ ] Assembly Location

Details of this change

The following changes are affected: Change of data sheet - Design changes in active elements. - Design changes in routing - Release of 8 inch wafer and change of Lithography Change of doping element in substrate - New / change of backside operation and metallization - New / change of passivation or die coating - Change of wire bonding - Change of mold compound

For details, please refer to the attached Self Qualification Report.

SelfQualificationReportCN-202602011F.pdf:
https://qcm.nexperia.com/Document/DOC-612555/SelfQualificationReportCN-202602011F.pdf

PCN-Delta-Qualification-MatrixCN-202602011F.xlsm:
https://qcm.nexperia.com/Document/DOC-612541/PCN-Delta-Qualification-MatrixCN-202602011F.xlsm

PCN-FORM-CN-202602011F.xlsm:
https://qcm.nexperia.com/Document/DOC-612494/PCN-FORM-CN-202602011F.xlsm

Chem_Content_CN-202602011F_20260608.zip:
https://qcm.nexperia.com/Document/DOC-612451/Chem_Content_CN-202602011F_20260608.zip

CN-202602011Fproductchangematrix.xlsx:
https://qcm.nexperia.com/Document/DOC-611343/CN-202602011Fproductchangematrix.xlsx

Why do we implement this change?

To increase flexibility, volume ramp-up and reduced supply chain risk.

Identification of affected products

Changed products can be identified by the different die design and date code after implementation.

Management summary

#1 SEM-DS-01 Change of data sheet parameters/electrical specification (min./max./typ. values) and/or AC/DC specification
#2 SEM-DE-01 Design changes in active elements.
#3 SEM-DE-02 Design changes in routing
#4 SEM-DE-03 Die shrink
#5 SEM-PW-02 New wafer diameter
#6 SEM-PW-04 Change of electrically active doping/implantation element
#7 SEM-PW-06 New / change of backside operation (grinding / metallization)
#8 SEM-PW-07 New / change of metallization / vias / contacts
#9 SEM-PW-08 New / change of passivation or die coating (without bare die)
#10 SEM-PW-14 Lithography
#11 SEM-PA-08 Change of wire bonding
#12 SEM-PA-11 Change of mold compound / encapsulation material

Product availability

Production

Planned first shipment: 22 Sep 2026

Existing inventory will be shipped until depleted

Sample information

Samples are available upon request

Impact

No impact to the product's functionality anticipated

Data sheet revision

A new datasheet will be issued

Feedback

Your acknowledgement of this change, conform JEDEC J-STD-046, is expected till 10 Jul 2026. Lack of acknowledgement of the PCN constitutes acceptance of the change.

Additional information

View Change Notification Online

Contact and support

For all Quality Notification content inquiries, please contact your local Nexperia Sales Support Team.

For specific questions on this notice or the products affected please contact our specialist directly: pcn@nexperia.com

In case of distribution, please contact you distribution partner.

About Nexperia B.V.

We at Nexperia are the efficiency semiconductor company. We deliver over 90 billion products a year and as such service thousands of global customers, both directly and through our extensive network of channel partners. We are at the heart of billions of electronic devices in the Automotive, Mobile, Industrial, Consumer, Computing, and Communication Infrastructure segments.

You have received this email because you are a designated contact or subscribed to Nexperia Quality Notifications. Nexperia shall not be held liable if this Notification is not correctly distributed within your organization.

This message has been automatically distributed. Please do not reply.

If you would like to adjust your mailing preferences, please click here.

SalesItem_name	SalesItem_orderablePartNumber	SalesOrder_customerPartNumber	ProductType_name	BasicType_description	PackageOutlineVersion_description	PackageType_description	SalesItem_state	SalesItem_discontinuationType	SalesItem_availability	SalesItem_source	SalesItem_lastTimeBuyDate	SalesItem_lastTimeShipDate	SalesItem_customerSpecificIndicator	Replacement_SalesItem_orderablePartNumber	Replacement_SalesItem_name	Replacement_ProductType_name	Replacement_BasicType_description	BusinessLine_description
934059129115	PBSS302ND,115		PBSS302ND	40 V, 4 A NPN low VCEsat (BISS) transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934664888126	PBSS302ND-QH		PBSS302ND-Q	40 V, 4 A NPN low VCEsat (BISS) transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934664888115	PBSS302ND-QX		PBSS302ND-Q	40 V, 4 A NPN low VCEsat (BISS) transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934059129125	PBSS302NDH		PBSS302ND	40 V, 4 A NPN low VCEsat (BISS) transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934059132115	PBSS302PD,115		PBSS302PD	40 V, 4 A PNP low VCesat (BISS) transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934668872125	PBSS302PD-QH		PBSS302PD-Q	40 V, 4 A PNP low VCesat transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934668872115	PBSS302PD-QX		PBSS302PD-Q	40 V, 4 A PNP low VCesat transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934059132125	PBSS302PDH		PBSS302PD	40 V, 4 A PNP low VCesat (BISS) transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934060012115	PBSS303ND,115		PBSS303ND	60 V, 3 A NPN low VCEsat (BISS) transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934668873115	PBSS303ND-QX		PBSS303ND-Q	60 V, 3 A NPN low VCEsat transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934060015115	PBSS303PD,115		PBSS303PD	60 V, 3 A PNP low VCEsat (BISS) transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934664890115	PBSS303PD-QX		PBSS303PD-Q	60 V, 3 A PNP low VCEsat (BISS) transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934058273115	PBSS4420D,115		PBSS4420D	20 V, 4 A NPN low VCEsat (BISS) transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934664889115	PBSS4420D-QX		PBSS4420D-Q	20 V, 4 A NPN low VCEsat (BISS) transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934057954115	PBSS4440D,115		PBSS4440D	40 V NPN low VCEsat (BISS) transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934668874115	PBSS4440D-QX		PBSS4440D-Q	40 V NPN low VCEsat transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934058274115	PBSS5420D,115		PBSS5420D	20 V, 4 A PNP low VCEsat (BISS) transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934668875115	PBSS5420D-QX		PBSS5420D-Q	20 V, 4 A PNP low VCEsat transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934057955115	PBSS5440D,115	PBSS5440D,115	PBSS5440D	40 V PNP low V_CEsat (BISS) transistor	SOT457	SC-74	RFS						No					Bipolar Discretes
934664891115	PBSS5440D-QX		PBSS5440D-Q	40 V PNP low V_CEsat (BISS) transistor	SOT457	SC-74	RFS						No					Bipolar Discretes

CN-202602011F

Release of 8 inch wafer diameter and copper wire for low VCEsat transistors in SOT457

Revision: 10 June 2026 **Self Qualification Report**

Document Information

Information	Content
Author	Andreas Pinkernelle
Supplier	Nexperia
Document Number	CN-202602011F

Revision History

Revision Date	Description
10 June 2026	New document

Contact Information

For more information, please contact: pcn@nexperia.com

nexperia

Table of Contents

1. Introduction 3
2. Change details 3
2.1 Change of wafer diameter and die layout/design 3
2.2 Front side metal and protection layer 4
2.3 Back metal thickness 5
2.4 Release of Cu Wire 5
2.5 Epoxy mold compound material 5
2.6 Data sheet update 5
3. Affected product types 6
4. Reliability test vehicles 7
5. Qualification report 7
6. Electrical and thermal performance 12
6.1 Electrical performance 12
6.2 Thermal performance 19
7. Comparison of visual appearance 19
8. Traceability 19
9. Conclusion 19
10. Legal Disclaimer 20

1. Introduction

Table 1: Changes announced in PCN CN-202602011F

Current	Change	Details
6 inch wafer diameter	8 inch wafer diameter	See chapter 2.1
6 inch die design/layout	8 inch die design/layout	See chapter 2.1
Die size 1.03 mm x 1.8 mm (NPN + PNP)	1.02 mm x 1.52 mm or 1.02 mm x 1.625 mm (see Table 2)	See chapter 2.1
full field lithography	stepper lithography	
No passivation	silicon nitride passivation	See chapter 2.2
Front metal 4.1 µm Al	2.2 µm Al	See chapter 2.2
Back metal NPN: AuAs/Ag/Ni/AuGe, 2.25 µm PNP: Au/Ag/Ni/AuGe, 2.25 µm	NPN + PNP: Au/Ag/Ni/AuGe, 1.75 µm	See chapter 2.3
Bond wire material Gold	Copper	See chapter 2.4
Mold Compound Hysol GR646 Panasonic 3400FPG-9	Hysol GR646CHNA3 Sumitomo EME-E500HT	See chapter 2.5

A data sheet update is available of all affected product types due to the improvement of the typical electrical performance, see chapter 6.1. The new data sheets can be downloaded from the Nexperia website after the changes announced in this PCN become effective.

2. Change details

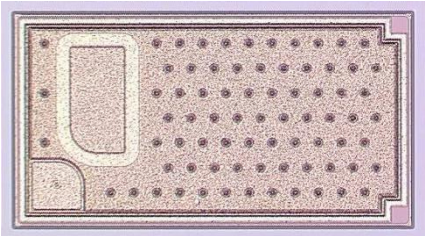
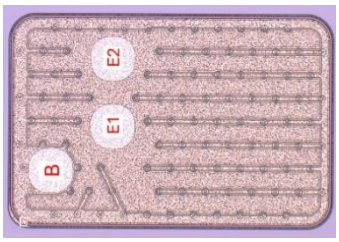
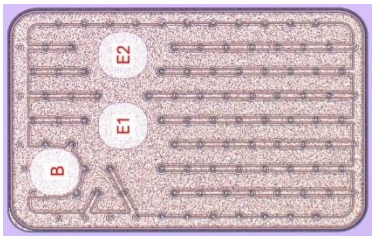
2.1 Change of wafer diameter and die layout/design

Wafer substrates with 8 inch wafer diameter are supplied by the same suppliers that are already released by Nexperia for the delivery of 6 inch and 8 inch wafer diameter material. The additional production using 8 inch wafer diameter implies the use of the respective 8 inch wafer process technology. 8 inch wafer will use stepper lithography and 6 inch wafer will use full field lithography technology. The substrate doping for the NPN Types will change from high Antimony to high Arsenic doping. The PNP substrate doping is unchanged.

The dies coming from the 8 inch wafer will have an improved die design in combination with smaller die sizes. For details please refer to Table 2. The optimized 8 inch die design leads to improved typical electrical device performance of V_{CEsat}, h_{FE} and switching time. For some product types, the VBEsat limits are adapted. For details, please see chapter 6.1.

All information provided in this document is subject to legal disclaimers. © 2026 Nexperia B.V. / XTE-0010 V1.3.

Table 2: Comparison of wafer diameter and die layout/design

Product	6 inch die	8 inch die
PBSS302ND (-Q) PBSS303ND (-Q) PBSS303PD (-Q) PBSS4420D (-Q) PBSS4440D (-Q) PBSS5420D (-Q)	 1.03 mm x 1.8 mm	 1.02 mm x 1.52 mm
PBSS302PD (-Q) PBSS5440D (-Q)		 1.02 mm x 1.625 mm

2.2 Front side metal and protection layer

For 8 inch devices a silicon nitride passivation is used. The double layer metallization is changed to a single layer. For details please refer to Table 3. This metal stack including nitride passivation is standard for Bipolar transistors from Nexperia. Minor resistance increase due to reduced Al front side metal thickness is compensated by improved die design.

Table 3: Comparison of front side metal and protection layer

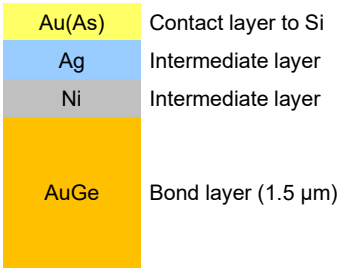
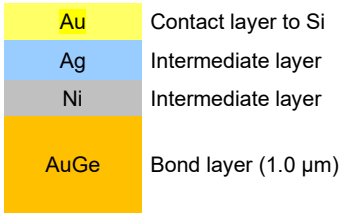
	6 inch	8 inch
Schematic of front side metallization and protection layer	*Al* — 2nd Aluminum layer *Ti* — Titanium layer *Al* — Aluminum layer *Emitter* — Emitter diffusion } 4.1 µm	*SiN* — GOV protection layer 1.5 µm *Al* — Aluminum layer 2.2 µm *Emitter* — Emitter diffusion

All information provided in this document is subject to legal disclaimers. © 2026 Nexperia B.V. / XTE-0010 V1.3.

2.3 Back metal thickness

The total back side metallization (Au(As)/Ag/Ni/AuGe) thickness will be changed from 2.25 µm to 1.75 µm by reduced AuGe layer thickness. The AuAs-layer which is currently used for NPN transistors will be changed to Au. The PNP transistors remain with Au as before. No change of Au, Ag and Ni layer thickness.

Table 4: Comparison of back side metallization

	2.25 µm (current)	**1.75 µm** (change)
Schematic of back side metallization layer		

2.4 Release of Cu Wire

The wire will be changed from gold to copper. The copper wire suppliers have already been released by Nexperia and have been in mass production for years with structurally similar SMD package product types. Qualification for this change is supported by the qualification results reported in this PCN and by long-term reliability monitoring data from structurally similar product families over recent years.

2.5 Epoxy mold compound material

Two new epoxy mold compounds (EMCs) will be introduced for production: Hysol GR646CHNA3 and Sumitomo EME-E500HT, replacing Hysol GR646 and Panasonic 3400FPG-9.
The existing molding and deflash processes will remain unchanged for all EMC types, ensuring consistent mold and flash performance along the leads and no change in visual appearance.
Detailed EMC specifications are provided in Table 5.

Table 5: Overview of epoxy mold compounds

Item Name		**Supplier Response**	
Mold Compound			
a.	Mold compound supplier & ID	Hysol GR646CHNA3	Sumitomo EME-E500HT
b.	Mold compound type	epoxy (SiO_2 filled)	epoxy (SiO_2 filled)
c.	Flammability rating	UL 94 V0	UL 94 V0
d.	Fire Retardant type/composition	None	None
e.	T_g (glass transition temp.) (°C) [1]	min. 140	min. 125
f.	CTE (below T_g) (ppm/°C) [1]	max. 20	max. 25
	CTE (above T_g) (ppm/°C) [1]	max. 80	max. 75

2.6 Data sheet update

Due to the improvement of the typical electrical performance of the 8 inch devices, the data sheets have been updated and typical values have been adapted to the new 8 inch performance. For some product types, the VBEsat limits are adapted. New data sheets can be found on the Nexperia website after the changes announced in this PCN become effective. The changes are explained in chapter 6.1.

Table 6: Comparison of data sheet update

Product	Data sheet ID (Release date) Current	Data sheet ID (Release date) New
PBSS302ND	PBSS302ND v.4	PBSS302ND v.5
PBSS302ND-Q	PBSS302ND-Q v.1	PBSS302ND-Q v.2
PBSS302PD	PBSS302PD_2	same (no change)
PBSS302PD-Q	PBSS302PD-Q v.1	same (no change)
PBSS303ND	PBSS303ND_2	PBSS303ND v.3
PBSS303ND-Q	PBSS303ND-Q v.1	PBSS303ND-Q v.2
PBSS303PD	PBSS303PD v.4	PBSS303PD v.5
PBSS303PD-Q	PBSS303PD-Q v.1	PBSS303PD-Q v.2
PBSS4420D	PBSS4420D v.3	PBSS4420D v.4
PBSS4420D-Q	PBSS4420D-Q v.1	PBSS4420D-Q v.2
PBSS4440D	PBSS4440D_2	PBSS4440D v.3
PBSS4440D-Q	PBSS4440D-Q v.1	PBSS4440D-Q v.2
PBSS5420D	PBSS5420D_2	PBSS5420D v.4
PBSS5420D-Q	PBSS5420D-Q v.1	PBSS5420D-Q v.2
PBSS5440D	PBSS5440D v.4	same (no change)
PBSS5440D-Q	PBSS5440D-Q v.1	same (no change)

3. Affected product types

Detailed change matrix *"CN-202602011F product change matrix.xlsx"* of affected product types to compare the device construction pre and post change can be found in the document repository of CN-202602011F.

All information provided in this document is subject to legal disclaimers. © 2026 Nexperia B.V. / XTE-0010 V1.3.

4. Reliability test vehicles

Table 7: Qualification leader types and materials used for qualification of wafer diameter and die design change

		Material used for qualification				
Product	**Package**	**Wafer diameter**	**Die Size**	**Protection layer**	**Front side metal**	**Back side metal**
PBSS302PD-Q	SOT457	200 mm	1.02 mm x 1.625 mm	SiN (silicon nitride)	Al 2.2µm	Au/Ag/Ni/AuGe 1.75 µm
PBSS302ND-Q	SOT457	200 mm	1.02 mm x 1.52 mm	SiN (silicon nitride)	Al 2.2µm	Au/Ag/Ni/AuGe 1.75 µm

Table 8: Qualification leader types and materials used for qualification of copper wire and new mold compounds

		Material used for qualification	
Product	**Package**	**Bond wire**	**Mold compound**
1PS74SB23	SOT457	Copper 50 µm	Hysol GR646CHNA3
PBSS4350D-Q	SOT457	Copper 50 µm	Hysol GR646CHNA3
PBSS303PD-Q	SOT457	Copper 50 µm	Sumitomo E500HT
PESD15VS5UD-Q	SOT457	Copper 50 µm	Hysol GR646CHNA3

5. Qualification report

Table 9: Qualification results according to AEC-Q101 Rev. E / AEC-Q006 Rev. B

Test Group A – Accelerated Environment Stress Tests

#	Stress	Test method	Duration	Tested part(s)	# of lots	Sample size/lot	# of Fails
A1	**PC** Pre-conditioning	JEDEC/IPC J-STD-020, JESD22-A-113, TEST before and after PC	acc. to MSL 1		- see notes -		0
	Notes:	All qualification parts prior to tests #A2 alt H^3TRB, #A3 UHAST, #A4 TC/TCHT/TCDT, #A5 IOL/PTC and #C8 RSH.					
A2	**HAST** Highly Accelerated Stress Test	JEDEC JESD22-A-110 T_A = 130 °C, RH = 85 %, V_R = 80 % of max. rated reverse voltage or limit of chamber	96 hours	N/A	N/A	N/A	N/A
	Notes:	Omitted in lieu of alternative test, see test #A2 alt (H^3TRB).					
A**2 a**lt	**H^3TRB** High Humidity High Temperature Reverse Bias	JEDEC JESD22-A-101 T_A = 85 °C, RH = 85 %, V_R = 80 % of rated breakdown voltage or limit of chamber	1000 hours	PBSS302PD-Q PBSS302ND-Q	1 1	80 80	0 0

All information provided in this document is subject to legal disclaimers. © 2026 Nexperia B.V. / XTE-0010 V1.3.

#	Stress	Test method	Duration	Tested part(s)	# of lots	Sample size/lot	# of Fails
			2000 hours	1PS74SB23 PBSS4350D-Q PBSS303PD-Q PESD15VS5UD-Q	1 1 1 1	80 80 80 80	0 0 0 0
	Notes:	-					
A3	**UHAST** Unbiased HAST	JEDEC JESD22-A-118 T_A = 110 °C, RH = 85 %	528 hours	1PS74SB23 PBSS4350D-Q PBSS303PD-Q PESD15VS5UD-Q	1 1 1 1	80 80 80 80	0 0 0 0
		T_A = 130 °C, RH = 85 %	264 hours	PBSS302PD-Q PBSS302ND-Q	1 1	80 80	0 0
A3 alt	**AC** Autoclave	JEDEC JESD22-A-102 T_A = 121 °C, RH = 100 %, p = 15 psig	96 hours	N/A	N/A	N/A	N/A
	Notes:	Omitted in lieu of alternative test, see test #A3 (UHAST).					
A4	**TC** Temperature Cycling	JEDEC JESD22-A-104 Appendix 6 T = -65 °C to 150°C	2000 cycles	PBSS302PD-Q PBSS302ND-Q 1PS74SB23 PBSS4350D-Q PBSS303PD-Q PESD15VS5UD-Q	1 1 1 1 1 1	80 80 80 80 80 80	0 0 0 0 0 0
	Notes:	-					
A4a	**TCHT** Temperature Cycling Hot Test	JEDEC JESD22-A-104 Appendix 6	1000 cycles	N/A	N/A	N/A	N/A
	Notes:	TCHT is required for MOSFET parts with internal bond wire sizes 5 mil diameter and less. Reported parts are not MOSFET parts.					
A4a alt	**TCDT** Delamination Test	JEDEC JESD22-A-104 Appendix 6, J-STD-035	1000 cycles	N/A	N/A	N/A	N/A
	Notes:	TCDT is required for MOSFET parts with internal bond wire sizes 5 mil diameter and less. Reported parts are not MOSFET parts.					
A5	**IOL** Intermittent Operational Life	MIL-STD-750 Method 1037 T = 25 °C, $\Delta T_j \geq 100$ °C, $t_{on} = t_{off}$ = 2 min	1000 hours	PBSS302PD-Q PBSS302ND-Q 1PS74SB23 PBSS4350D-Q PBSS303PD-Q	1 1 1 1 1	80 80 80 80 80	0 0 0 0 0
	Notes:	-					
A5 alt	**PTC** Power and Temperature Cycle	JESD22-A-105	1000 hours	N/A	N/A	N/A	N/A
	Notes:	Omitted in lieu of alternative test, see test # A5 (IOL).					

Test Group B – Accelerated Lifetime Simulation Tests

All information provided in this document is subject to legal disclaimers. © 2026 Nexperia B.V. / XTE-0010 V1.3.

#	Stress	Test method	Duration	Tested part(s)	# of lots	Sample size/lot	# of Fails
B1	**HTRB** High Temperature Reverse Bias	MIL-STD-750-1 M1038 Condition A or M1039 Condition A $T_j = T_{jmax}$, V_R = 100% of max. breakdown voltage	2000 hours	PBSS302PD-Q PBSS302ND-Q 1PS74SB23 PBSS4350D-Q PBSS303PD-Q PESD15VS5UD-Q	1 1 1 1 1 1	80 80 80 80 80 80	0 0 0 0 0 0
	Notes:	-					
B1a	**ACBV** AC blocking voltage	MIL-STD-750-1 M1040 Test condition A	1000 hours	N/A	N/A	N/A	N/A
	Notes:	ACBV is required for Thyristors only. Reported parts are not Thyristors.					
B1b	**SSOP** Steady State Operational	MIL-STD-750-1 M1038 Condition B (Zeners)	1000 hours	N/A	N/A	N/A	N/A
	Notes:	SSOP is required for Zener diodes only. Reported parts are not Zener diodes.					
B2	**HTGB** High Temperature Gate Bias	JEDEC JESD22-A-108	1000 hours	N/A	N/A	N/A	N/A
	HTnGB High Temperature Negative Gate Bias	JEDEC JESD22-A-108	1000 hours	N/A	N/A	N/A	N/A
	Notes:	HT(n)GB is required for MOS and IGBT parts only. Reported parts are not MOS or IGBT parts.					

Test Group C – Package Assembly Integrity Tests

#	Stress	Test method	Duration	Tested part(s)	# of lots	Sample size/lot	# of Fails
C1	**DPA** Destructive Physical Analysis	AEC-Q101-004 Section 4 2 devices each after H^3TRB and TC	-	PBSS302PD-Q PBSS302ND-Q 1PS74SB23 PBSS4350D-Q PBSS303PD-Q PESD15VS5UD-Q	1 1 1 1 1 1	4 4 4 4 4 4	0 0 0 0 0 0
	Notes:	-					
C2	**PD** Physical Dimensions	JEDEC JESD22-B-100	-				
	Notes:	There is no change in the external dimensions					
C3	**WBP** Wire Bond Pull Strength	MIL-STD-750-2 Method 2037 / AEC-Q006 (Cu-wire)	-	1PS74SB23 PBSS4350D-Q PBSS303PD-Q PESD15VS5UD-Q	1 1 1 1	5 5 5 5	0 0 0 0
	Notes:	-					
C4	**WBS** Wire Bond Shear Strength	AEC-Q101-003, JEDEC JESD22-B116	-	1PS74SB23 PBSS4350D-Q PBSS303PD-Q PESD15VS5UD-Q	1 1 1 1	5 5 5 5	0 0 0 0
	Notes:	-					

All information provided in this document is subject to legal disclaimers. © 2026 Nexperia B.V. / XTE-0010 V1.3.

#	Stress	Test method	Duration	Tested part(s)	# of lots	Sample size/lot	# of Fails
C5	**DS** Die Shear	MIL-STD-750-2 Method 2017	-	1PS74SB23 PBSS4350D-Q PBSS303PD-Q PESD15VS5UD-Q	1 1 1 1	5 5 5 5	0 0 0 0
	Notes:	-					
C6	**TS** Terminal Strength	MIL-STD-750-2 Method 2036 evaluate lead integrity of through-hole leaded parts only	-	N/A	N/A	N/A	N/A
	Notes:	TS is required for leaded parts only. Reported parts are not leaded parts.					
C7	**RTS** Resistance to Solvents	JEDEC JESD22-B107 verify marking permanency	-	N/A	N/A	N/A	N/A
	Notes:	RTS is not required for laser etched parts or parts with no marking. Reported parts are laser etched parts.					
C8	**RSH** Resistance to Solder Heat	JEDEC JESD22-A-111 260 °C ± 5 °C	10 s	PBSS302PD-Q PBSS302ND-Q 1PS74SB23 PBSS4350D-Q PBSS303PD-Q PESD15VS5UD-Q	1 1 1 1 1 1	30 30 30 30 30 30	0 0 0 0 0 0
	Notes:	-					
C9	**TR** Thermal Resistance	JEDEC JESD24-3, 24-4, 24-6 as appropriate	-	PBSS4350D-Q PBSS303PD-Q	1 1	10 10	0 0
	Notes:	-					
C10	**SD** Solderability	JEDEC J-STD-002	-				
	Notes:	Tested parts use the same BOM					
C11	**WG** Whisker Growth Evaluation	AEC-Q005	-------- according to AEC-Q005 --------				
	Notes:	No change of leadframe outside plating, leadframe material or encapsulation process, therefore WG is not applicable					
C12	**CA** Constant Acceleration	MIL-STD-750-2 Method 2006	-	N/A	N/A	N/A	N/A
	Notes:	CA is required for hermetic packaged parts only. Reported package is not a hermetic package.					
C13	**VVF** Vibration Variable Frequency	JEDEC JESD22-B-103	-	N/A	N/A	N/A	N/A
	Notes:	VVF is required for hermetic packaged parts only. Reported package is not a hermetic package.					
C14	**MS** Mechanical Shock	JEDEC JESD22-B-104	-	N/A	N/A	N/A	N/A
	Notes:	MS is required for hermetic packaged parts only. Reported package is not a hermetic package.					
C15	**HER** Hermeticity	JEDEC JESD22-A-109	-	N/A	N/A	N/A	N/A
	Notes:	HER is required for hermetic packaged parts only. Reported package is not a hermetic package.					

All information provided in this document is subject to legal disclaimers. © 2026 Nexperia B.V. / XTE-0010 V1.3.

Test Group D – Die Fabrication Reliability Tests

#	Stress	Test method	Duration	Tested part(s)	# of lots	Sample size / lot	# of Fails
D1	**DI** Dielectric Integrity	AEC-Q101-004 Section 3	-	N/A	N/A	N/A	N/A
	Notes:	DI is required for Power MOS and IGBT parts only. Reported parts are not Power MOS or IGBT parts.					

Test Group E – Electrical Verification Tests

#	Stress	Test method	Duration	Tested part(s)	# of lots	Sample size/lot	# of Fails
E0	**EV** External Visual	JEDEC JESD22-B101	-	All qualification parts submitting for testing.			0
	Notes:	Inspect part construction, marking and workmanship					
E1	**TEST** Pre- and Post-Stress Electrical Test	According to supplier's standard specification	-	All qualification parts tested per the requirements of the appropriate part specification.			0
	Notes:	Test is performed as specified in the applicable stress reference at room temperature.					
E2	**PV** Parametric Verification	Over part temperature range specified in data sheet.	-	PBSS302PD-Q PBSS302ND-Q 1PS74SB23 PBSS4350D-Q PBSS303PD-Q PESD15VS5UD-Q	1 1 1 1 1 1	25 25 25 25 25 25	0 0 0 0 0 0
	Notes:	For parametric verification data, sometimes circumstances may necessitate the acceptance of only one lot by the user.					
E3	**ESDH** ESD – HBM Characterization	AEC-Q101-001	-	PBSS302PD-Q PBSS302ND-Q 1PS74SB23 PBSS4350D-Q PBSS303PD-Q PESD15VS5UD-Q	1 1 1 1 1 1	30 30 30 30 30 30	0 0 0 0 0 0
	Notes:	-					
E4	**ESDC** ESD – CDM Characterization	AEC-Q101-005	-	N/A	N/A	N/A	N/A
	Notes:	Small packages are not able to hold enough charge and are therefore exempt of testing according to AEC-Q101-005.					
E5	**UIS** Unclamped Inductive Switching	AEC-Q101-004 Section 2	-	N/A	N/A	N/A	N/A
	Notes:	UIS is required for MOS and IGBT parts only. Reported parts are not MOS or IGBT parts.					
E6	**SC** Short Circuit Characterization	AEC-Q101-006	-	N/A	N/A	N/A	N/A
	Notes:	SC is required for smart power parts only. Reported parts are not smart power parts.					

All information provided in this document is subject to legal disclaimers. © 2026 Nexperia B.V. / XTE-0010 V1.3.

6. Electrical and thermal performance

6.1 Electrical performance

Below please find the changes incorporated into the data sheets of the affected product types. Parameters and diagrams not highlighted or not shown in the tables below remain unchanged. The following products do not get an update of the data sheet:

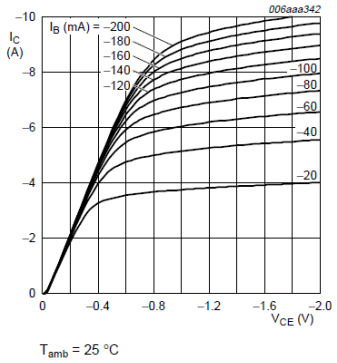
PBSS302PD
PBSS302PD-Q
PBSS5440D
PBSS5440D-Q

Table 10: Data sheet update characteristics PBSS5420D and PBSS5420D-Q

Current

Table 7. Characteristics
T_{amb} = 25 °C unless otherwise specified.

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
h_{FE}	DC current gain	V_{CE} = −2 V; I_C = −0.5 A		250	400	-	
		V_{CE} = −2 V; I_C = −1 A	[1]	250	400	-	
		V_{CE} = −2 V; I_C = −2 A	[1]	200	330	-	
		V_{CE} = −2 V; I_C = −4 A	[1]	120	200	-	
		V_{CE} = −2 V; I_C = −6 A	[1]	80	130	-	
t_d	delay time	V_{CC} = −12.5 V; I_C = −3 A; I_{Bon} = −0.15 A; I_{Boff} = 0.15 A		-	10	-	ns
t_r	rise time			-	35	-	ns
t_{on}	turn-on time			-	45	-	ns
t_s	storage time			-	200	-	ns
t_f	fall time			-	80	-	ns
t_{off}	turn-off time			-	280	-	ns



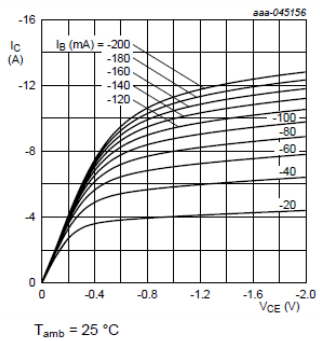
T_{amb} = 25 °C

Fig 6. Collector current as a function of collector-emitter voltage; typical values

New

Table 7. Characteristics

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
h_{FE}	DC current gain	V_{CE} = -2 V; I_C = -0.5 A; T_{amb} = 25 °C		250	400	-	
		V_{CE} = -2 V; I_C = -1 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		250	400	-	
		V_{CE} = -2 V; I_C = -2 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		200	330	-	
		V_{CE} = -2 V; I_C = -4 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		120	230	-	
		V_{CE} = -2 V; I_C = -6 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		80	160	-	
t_d	delay time	V_{CC} = -12.5 V; I_C = -3 A; I_{Bon} = -0.15 A; I_{Boff} = 0.15 A; T_{amb} = 25 °C		-	10	-	ns
t_r	rise time			-	50	-	ns
t_{on}	turn-on time			-	60	-	ns
t_s	storage time			-	180	-	ns
t_f	fall time			-	65	-	ns
t_{off}	turn-off time			-	245	-	ns



T_{amb} = 25 °C

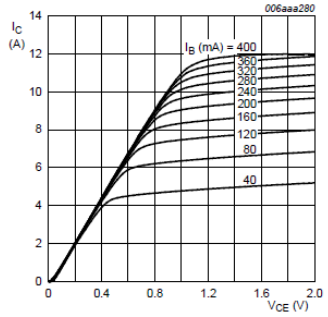
Fig. 6. Collector current as a function of collector-emitter voltage; typical values

Table 11: Data sheet update characteristics PBSS302ND and PBSS302ND-Q

Current

Table 7. Characteristics

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
h_{FE}	DC current gain	V_{CE} = 2 V; I_C = 0.5 A; T_{amb} = 25 °C		300	500	-	
		V_{CE} = 2 V; I_C = 1 A; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		300	475	-	
		V_{CE} = 2 V; I_C = 2 A; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		250	385	-	
		V_{CE} = 2 V; I_C = 4 A; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		100	190	-	
		V_{CE} = 2 V; I_C = 6 A; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		50	100	-	
V_{BEsat}	base-emitter saturation voltage	I_C = 0.5 A; I_B = 50 mA; T_{amb} = 25 °C		-	0.79	0.85	V
		I_C = 1 A; I_B = 50 mA; T_{amb} = 25 °C		-	0.81	0.9	V
		I_C = 1 A; I_B = 100 mA; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		-	0.83	1	V
		I_C = 4 A; I_B = 400 mA; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		-	1	1.1	V



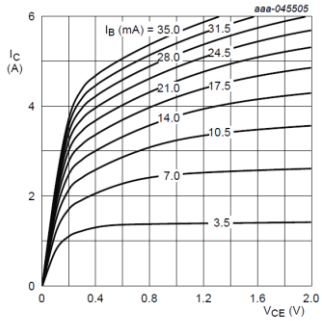
T_{amb} = 25 °C

Fig. 6. Collector current as a function of collector-emitter voltage; typical values

New

Table 7. Characteristics

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
h_{FE}	DC current gain	V_{CE} = 2 V; I_C = 0.5 A; T_{amb} = 25 °C		300	500	-	
		V_{CE} = 2 V; I_C = 1 A; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		300	475	-	
		V_{CE} = 2 V; I_C = 2 A; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		250	440	-	
		V_{CE} = 2 V; I_C = 4 A; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		100	340	-	
		V_{CE} = 2 V; I_C = 6 A; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		50	225	-	
V_{BEsat}	base-emitter saturation voltage	I_C = 0.5 A; I_B = 50 mA; T_{amb} = 25 °C		-	0.79	0.85	V
		I_C = 1 A; I_B = 50 mA; T_{amb} = 25 °C		-	0.81	0.9	V
		I_C = 1 A; I_B = 100 mA; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		-	0.87	1	V
		I_C = 4 A; I_B = 400 mA; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		-	1.08	1.15	V



T_{amb} = 25 °C

Fig. 6. Collector current as a function of collector-emitter voltage; typical values

Table 12: Data sheet update characteristics PBSS4420D and PBSS4420D-Q

Current

Table 7. Characteristics

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
h_{FE}	DC current gain	V_{CE} = 2 V; I_C = 0.5 A; T_{amb} = 25 °C		300	450	-	
		V_{CE} = 2 V; I_C = 1 A; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		300	430	-	
		V_{CE} = 2 V; I_C = 2 A; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		250	400	-	
		V_{CE} = 2 V; I_C = 4 A; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		200	310	-	
		V_{CE} = 2 V; I_C = 6 A; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		100	230	-	
V_{CEsat}	collector-emitter saturation voltage	I_C = 0.5 A; I_B = 50 mA; T_{amb} = 25 °C		-	30	50	mV
		I_C = 1 A; I_B = 50 mA; T_{amb} = 25 °C		-	60	90	mV
		I_C = 2 A; I_B = 200 mA; T_{amb} = 25 °C		-	110	150	mV
		I_C = 4 A; I_B = 400 mA; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		-	200	280	mV
		I_C = 6 A; I_B = 600 mA; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		-	300	420	mV
R_{CEsat}	collector-emitter saturation resistance	I_C = 4 A; I_B = 400 mA; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		-	50	70	mΩ
V_{BEsat}	base-emitter saturation voltage	I_C = 0.5 A; I_B = 50 mA; T_{amb} = 25 °C		-	0.79	0.85	V
		I_C = 1 A; I_B = 50 mA; T_{amb} = 25 °C		-	0.81	0.9	V
		I_C = 1 A; I_B = 100 mA; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		-	0.83	1	V
		I_C = 4 A; I_B = 400 mA; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		-	1	1.1	V

New

Table 7. Characteristics

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
h_{FE}	DC current gain	V_{CE} = 2 V; I_C = 0.5 A; T_{amb} = 25 °C		300	500	-	
		V_{CE} = 2 V; I_C = 1 A; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		300	475	-	
		V_{CE} = 2 V; I_C = 2 A; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		250	450	-	
		V_{CE} = 2 V; I_C = 4 A; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		200	375	-	
		V_{CE} = 2 V; I_C = 6 A; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		100	300	-	
V_{CEsat}	collector-emitter saturation voltage	I_C = 0.5 A; I_B = 50 mA; T_{amb} = 25 °C		-	30	50	mV
		I_C = 1 A; I_B = 50 mA; T_{amb} = 25 °C		-	40	90	mV
		I_C = 2 A; I_B = 200 mA; T_{amb} = 25 °C		-	75	150	mV
		I_C = 4 A; I_B = 400 mA; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		-	150	280	mV
		I_C = 6 A; I_B = 600 mA; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		-	200	420	mV
R_{CEsat}	collector-emitter saturation resistance	I_C = 4 A; I_B = 400 mA; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		-	38	70	mΩ
V_{BEsat}	base-emitter saturation voltage	I_C = 0.5 A; I_B = 50 mA; T_{amb} = 25 °C		-	0.79	0.85	V
		I_C = 1 A; I_B = 50 mA; T_{amb} = 25 °C		-	0.81	0.9	V
		I_C = 1 A; I_B = 100 mA; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		-	0.87	1	V
		I_C = 4 A; I_B = 400 mA; pulsed; $t_p \leq$ 300 µs; $\delta \leq$ 0.02; T_{amb} = 25 °C		-	1.08	1.15	V

All information provided in this document is subject to legal disclaimers. © 2026 Nexperia B.V. / XTE-0010 V1.3.

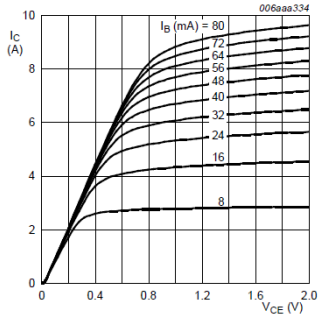
Table 12: Data sheet update characteristics PBSS4420D and PBSS4420D-Q

Current

t_d	delay time	V_{CC} = 12.5 V; I_C = 3 A; I_{Bon} = 0.15 A; I_{Boff} = -0.15 A; T_{amb} = 25 °C		-	12	-	ns
t_r	rise time			-	36	-	ns
t_{on}	turn-on time			-	48	-	ns
t_s	storage time			-	230	-	ns
t_f	fall time			-	50	-	ns
t_{off}	turn-off time			-	280	-	ns
C_c	collector capacitance	V_{CB} = 10 V; I_E = 0 A; i_e = 0 A; f = 1 MHz; T_{amb} = 25 °C		-	60	-	pF

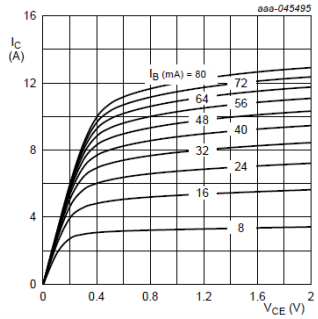
New

t_d	delay time	V_{CC} = 12.5 V; I_C = 3 A; I_{Bon} = 0.15 A; I_{Boff} = -0.15 A; T_{amb} = 25 °C		-	12	-	ns
t_r	rise time			-	50	-	ns
t_{on}	turn-on time			-	62	-	ns
t_s	storage time			-	230	-	ns
t_f	fall time			-	50	-	ns
t_{off}	turn-off time			-	280	-	ns
C_c	collector capacitance	V_{CB} = 10 V; I_E = 0 A; i_e = 0 A; f = 1 MHz; T_{amb} = 25 °C		-	50	-	pF



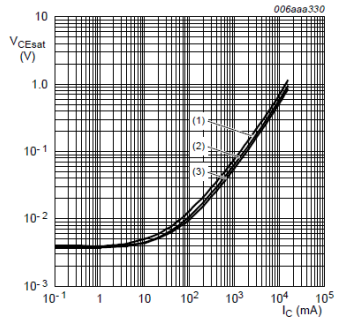
T_{amb} = 25 °C

Fig. 6. Collector current as a function of collector-emitter voltage; typical values



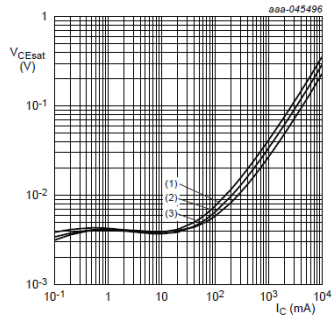
T_{amb} = 25 °C

Fig. 6. Collector current as a function of collector-emitter voltage; typical values



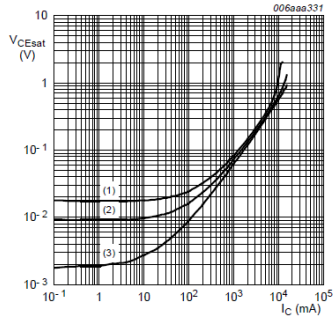
I_C/I_B = 20
(1) T_{amb} = 100 °C
(2) T_{amb} = 25 °C
(3) T_{amb} = -55 °C

Fig. 9. Collector-emitter saturation voltage as a function of collector current; typical values



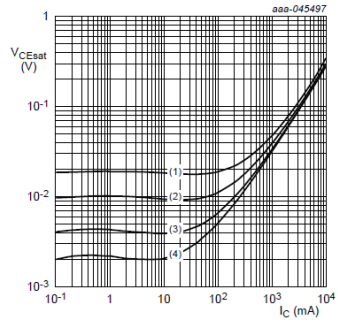
I_C/I_B = 20
(1) T_{amb} = 100 °C
(2) T_{amb} = 25 °C
(3) T_{amb} = -55 °C

Fig. 9. Collector-emitter saturation voltage as a function of collector current; typical values



T_{amb} = 25 °C
(1) I_C/I_B = 100
(2) I_C/I_B = 50
(3) I_C/I_B = 10

Fig. 10. Collector-emitter saturation voltage as a function of collector current; typical values

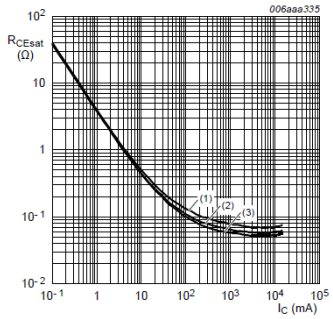
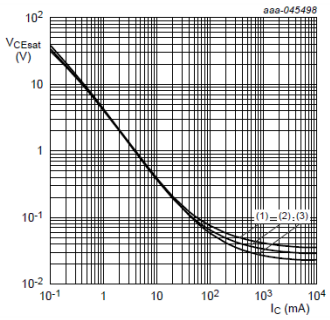
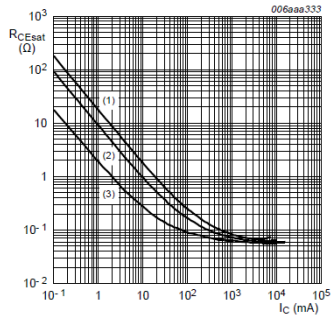
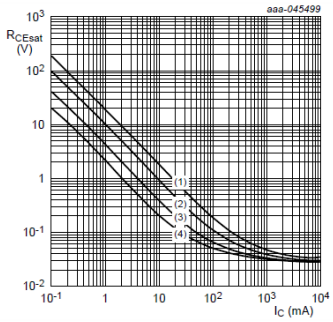


T_{amb} = 25 °C
(1) I_C/I_B = 100
(2) I_C/I_B = 50
(3) I_C/I_B = 20
(4) I_C/I_B = 10

Fig. 10. Collector-emitter saturation voltage as a function of collector current; typical values

All information provided in this document is subject to legal disclaimers. © 2026 Nexperia B.V. / XTE-0010 V1.3.

Table 12: Data sheet update characteristics PBSS4420D and PBSS4420D-Q

Current	New
 I_C/I_B = 20 (1) T_{amb} = 100 °C (2) T_{amb} = 25 °C (3) T_{amb} = -55 °C **Fig. 11. Collector-emitter saturation resistance as a function of collector current; typical values**	 I_C/I_B = 20 (1) T_{amb} = 100 °C (2) T_{amb} = 25 °C (3) T_{amb} = -55 °C **Fig. 11. Collector-emitter saturation resistance as a function of collector current; typical values**
 T_{amb} = 25 °C (1) I_C/I_B = 100 (2) I_C/I_B = 50 (3) I_C/I_B = 10 **Fig. 12. Collector-emitter saturation resistance as a function of collector current; typical values**	 T_{amb} = 25 °C (1) I_C/I_B = 100 (2) I_C/I_B = 50 (3) I_C/I_B = 20 (4) I_C/I_B = 10 **Fig. 12. Collector-emitter saturation resistance as a function of collector current; typical values**

All information provided in this document is subject to legal disclaimers. © 2026 Nexperia B.V. / XTE-0010 V1.3.

Table 13: Data sheet update characteristics PBSS303PD and PBSS303PD-Q

Current

Table 7. Characteristics

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
h_{FE}	DC current gain	V_{CE} = -2 V; I_C = -500 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		180	265	-	
		V_{CE} = -2 V; I_C = -1 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		160	235	-	
		V_{CE} = -2 V; I_C = -2 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		130	185	-	
		V_{CE} = -2 V; I_C = -3 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		95	135	-	
		V_{CE} = -2 V; I_C = -4 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		60	80	-	
		V_{CE} = -2 V; I_C = -5 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		35	50	-	
		V_{CE} = -2 V; I_C = -6 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		20	30	-	
V_{CEsat}	collector-emitter saturation voltage	I_C = -500 mA; I_B = -50 mA; T_{amb} = 25 °C		-	-55	-70	mV
		I_C = -1 A; I_B = -50 mA; T_{amb} = 25 °C		-	-100	-135	mV
		I_C = -2 A; I_B = -200 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	-150	-200	mV
		I_C = -3 A; I_B = -150 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	-275	-365	mV
		I_C = -3 A; I_B = -300 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	-210	-290	mV
		I_C = -4 A; I_B = -400 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	-285	-385	mV
		I_C = -5 A; I_B = -500 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	-375	-495	mV
		I_C = -6 A; I_B = -600 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	-515	-675	mV
R_{CEsat}	collector-emitter saturation resistance	I_C = -2 A; I_B = -200 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	75	100	mΩ
t_d	delay time	V_{CC} = -9.2 V; I_C = -2 A; I_{Bon} = -0.1 A; I_{Boff} = 0.1 A; T_{amb} = 25 °C		-	13	-	ns
t_r	rise time			-	53	-	ns
t_{on}	turn-on time			-	66	-	ns
t_s	storage time			-	230	-	ns
t_f	fall time			-	76	-	ns
t_{off}	turn-off time			-	306	-	ns
C_c	collector capacitance	V_{CB} = -10 V; I_E = 0 A; i_e = 0 A; f = 1 MHz; T_{amb} = 25 °C		-	58	-	pF

New

Table 7. Characteristics

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
h_{FE}	DC current gain	V_{CE} = -2 V; I_C = -500 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		180	265	-	
		V_{CE} = -2 V; I_C = -1 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		160	235	-	
		V_{CE} = -2 V; I_C = -2 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		130	205	-	
		V_{CE} = -2 V; I_C = -3 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		95	170	-	
		V_{CE} = -2 V; I_C = -4 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		60	125	-	
		V_{CE} = -2 V; I_C = -5 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		35	90	-	
		V_{CE} = -2 V; I_C = -6 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		20	60	-	
V_{CEsat}	collector-emitter saturation voltage	I_C = -500 mA; I_B = -50 mA; T_{amb} = 25 °C		-	-55	-70	mV
		I_C = -1 A; I_B = -50 mA; T_{amb} = 25 °C		-	-100	-135	mV
		I_C = -2 A; I_B = -200 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	-125	-200	mV
		I_C = -3 A; I_B = -150 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	-200	-365	mV
		I_C = -3 A; I_B = -300 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	-180	-290	mV
		I_C = -4 A; I_B = -400 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	-235	-385	mV
		I_C = -5 A; I_B = -500 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	-300	-495	mV
		I_C = -6 A; I_B = -600 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	-365	-675	mV
R_{CEsat}	collector-emitter saturation resistance	I_C = -2 A; I_B = -200 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	63	100	mΩ
t_d	delay time	V_{CC} = -9.2 V; I_C = -2 A; I_{Bon} = -0.1 A; I_{Boff} = 0.1 A; T_{amb} = 25 °C		-	10	-	ns
t_r	rise time			-	90	-	ns
t_{on}	turn-on time			-	100	-	ns
t_s	storage time			-	280	-	ns
t_f	fall time			-	90	-	ns
t_{off}	turn-off time			-	370	-	ns
C_c	collector capacitance	V_{CB} = -10 V; I_E = 0 A; i_e = 0 A; f = 1 MHz; T_{amb} = 25 °C		-	43	-	pF

Table 14: Data sheet update characteristics PBSS4440D and PBSS4440D-Q

Current

Table 7. Characteristics

T_{amb} = 25 °C unless otherwise specified.

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
V_{CEsat}	collector-emitter saturation voltage	I_C = 0.5 A; I_B = 50 mA		-	35	60	mV
		I_C = 1 A; I_B = 50 mA		-	65	110	mV
		I_C = 2 A; I_B = 200 mA		-	115	180	mV
		I_C = 4 A; I_B = 400 mA	[1]	-	220	300	mV
		I_C = 6 A; I_B = 600 mA	[1]	-	330	450	mV
R_{CEsat}	collector-emitter saturation resistance	I_C = 6 A; I_B = 600 mA	[1]	-	55	75	mΩ
V_{BEsat}	base-emitter saturation voltage	I_C = 0.5 A; I_B = 50 mA		-	0.79	0.85	V
		I_C = 1 A; I_B = 50 mA		-	0.81	0.9	V
		I_C = 1 A; I_B = 100 mA	[1]	-	0.83	1	V
		I_C = 4 A; I_B = 400 mA	[1]	-	1.0	1.1	V

New

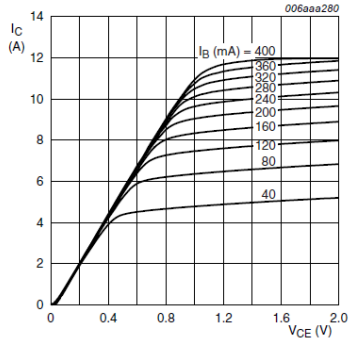
Table 7. Characteristics

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
V_{CEsat}	collector-emitter saturation voltage	I_C = 0.5 A; I_B = 50 mA; T_{amb} = 25 °C		-	35	60	mV
		I_C = 1 A; I_B = 50 mA; T_{amb} = 25 °C		-	65	110	mV
		I_C = 2 A; I_B = 200 mA; T_{amb} = 25 °C		-	85	180	mV
		I_C = 4 A; I_B = 400 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	160	300	mV
		I_C = 6 A; I_B = 600 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	235	450	mV
R_{CEsat}	collector-emitter saturation resistance			-	39	75	mΩ
V_{BEsat}	base-emitter saturation voltage	I_C = 0.5 A; I_B = 50 mA; T_{amb} = 25 °C		-	0.79	0.85	V
		I_C = 1 A; I_B = 50 mA; T_{amb} = 25 °C		-	0.81	0.9	V
		I_C = 1 A; I_B = 100 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	0.87	1	V
		I_C = 4 A; I_B = 400 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	1.08	1.15	V

All information provided in this document is subject to legal disclaimers. © 2026 Nexperia B.V. / XTE-0010 V1.3.

Table 14: Data sheet update characteristics PBSS4440D and PBSS4440D-Q

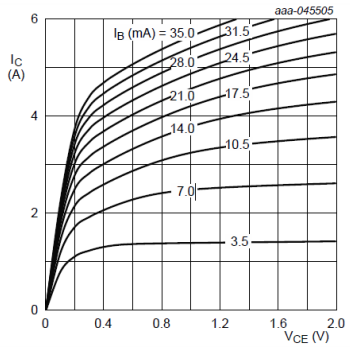
Current



T_{amb} = 25 °C

Fig 11. Collector current as a function of collector-emitter voltage; typical values

New



T_{amb} = 25 °C

Fig. 6. Collector current as a function of collector-emitter voltage; typical values

Table 15: Data sheet update characteristics PBSS303ND and PBSS303ND -Q

Current

Table 7. Characteristics

T_{amb} = 25 °C unless otherwise specified.

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
h_{FE}	DC current gain	V_{CE} = 2 V; I_C = 0.5 A		345	570	-	
		V_{CE} = 2 V; I_C = 1 A	[1]	315	530	-	
		V_{CE} = 2 V; I_C = 2 A	[1]	250	380	-	
		V_{CE} = 2 V; I_C = 3 A	[1]	120	185	-	
		V_{CE} = 2 V; I_C = 4 A	[1]	60	95	-	
		V_{CE} = 2 V; I_C = 5 A	[1]	35	60	-	
		V_{CE} = 2 V; I_C = 6 A	[1]	20	40	-	
V_{CEsat}	collector-emitter saturation voltage	I_C = 0.5 A; I_B = 50 mA		-	40	55	mV
		I_C = 1 A; I_B = 50 mA		-	80	105	mV
		I_C = 2 A; I_B = 200 mA	[1]	-	135	180	mV
		I_C = 3 A; I_B = 150 mA	[1]	-	210	280	mV
		I_C = 3 A; I_B = 300 mA	[1]	-	195	260	mV
		I_C = 4 A; I_B = 400 mA	[1]	-	255	340	mV
		I_C = 5 A; I_B = 0.5 A	[1]	-	320	425	mV
		I_C = 6 A; I_B = 0.6 A	[1]	-	385	515	mV
R_{CEsat}	collector-emitter saturation resistance	I_C = 2 A; I_B = 200 mA	[1]	-	68	90	mΩ
V_{BEsat}	base-emitter saturation voltage	I_C = 0.5 A; I_B = 50 mA		-	0.79	0.88	V
		I_C = 1 A; I_B = 50 mA		-	0.81	0.89	V
		I_C = 1 A; I_B = 100 mA	[1]	-	0.83	0.92	V
		I_C = 3 A; I_B = 150 mA	[1]	-	0.92	0.99	V
		I_C = 3 A; I_B = 300 mA	[1]	-	0.95	1.02	V
t_d	delay time	V_{CC} = 9.2 V; I_C = 2 A; I_{Bon} = 0.1 A; I_{Boff} = −0.1 A		-	12	-	ns
t_r	rise time			-	103	-	ns
t_{on}	turn-on time			-	115	-	ns
t_s	storage time			-	401	-	ns
t_f	fall time			-	264	-	ns
t_{off}	turn-off time			-	665	-	ns
f_T	transition frequency	V_{CE} = 10 V; I_C = 100 mA; f = 100 MHz		-	140	-	MHz
C_c	collector capacitance	V_{CB} = 10 V; I_E = i_e = 0 A; f = 1 MHz		-	33	-	pF

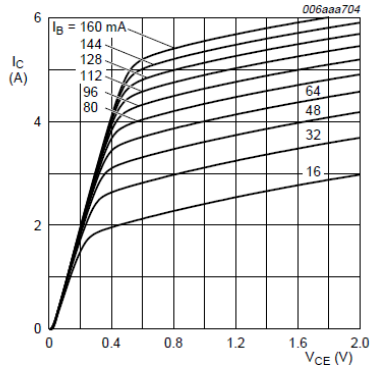
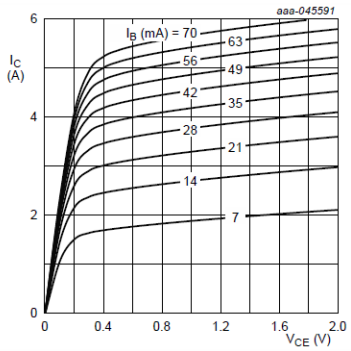
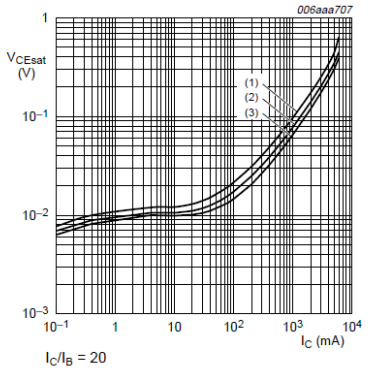
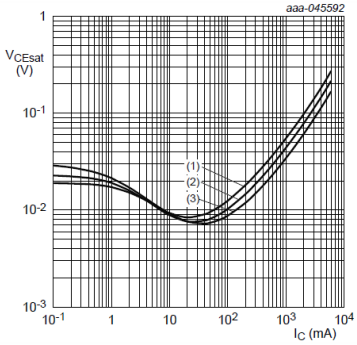
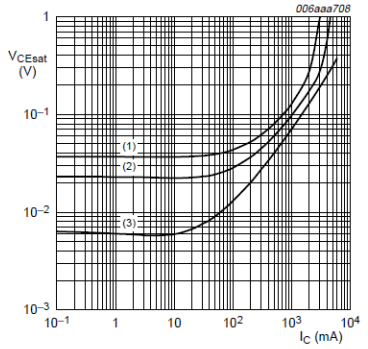
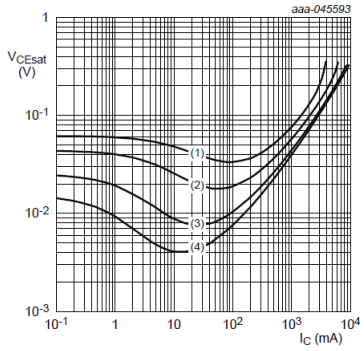
New

Table 7. Characteristics

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
h_{FE}	DC current gain	V_{CE} = 2 V; I_C = 0.5 A; T_{amb} = 25 °C		345	570	-	
		V_{CE} = 2 V; I_C = 1 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		315	530	-	
		V_{CE} = 2 V; I_C = 2 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		250	320	-	
		V_{CE} = 2 V; I_C = 3 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		120	210	-	
		V_{CE} = 2 V; I_C = 4 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		60	150	-	
		V_{CE} = 2 V; I_C = 5 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		35	110	-	
		V_{CE} = 2 V; I_C = 6 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		20	85	-	
V_{CEsat}	collector-emitter saturation voltage	I_C = 0.5 A; I_B = 50 mA; T_{amb} = 25 °C		-	25	55	mV
		I_C = 1 A; I_B = 50 mA; T_{amb} = 25 °C		-	50	105	mV
		I_C = 2 A; I_B = 200 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	80	180	mV
		I_C = 3 A; I_B = 150 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	125	280	mV
		I_C = 3 A; I_B = 300 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	115	260	mV
		I_C = 4 A; I_B = 400 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	150	340	mV
		I_C = 5 A; I_B = 0.5 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	175	425	mV
		I_C = 6 A; I_B = 0.6 A; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	225	515	mV
R_{CEsat}	collector-emitter saturation resistance	I_C = 2 A; I_B = 200 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	40	90	mΩ
V_{BEsat}	base-emitter saturation voltage	I_C = 0.5 A; I_B = 50 mA; T_{amb} = 25 °C		-	0.83	0.88	V
		I_C = 1 A; I_B = 50 mA; T_{amb} = 25 °C		-	0.84	0.89	V
		I_C = 1 A; I_B = 100 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	0.89	0.92	V
		I_C = 3 A; I_B = 150 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	0.97	0.99	V
		I_C = 3 A; I_B = 300 mA; pulsed; t_p ≤ 300 µs; δ ≤ 0.02; T_{amb} = 25 °C		-	1.04	1.07	V
t_d	delay time	V_{CC} = 9.2 V; I_C = 2 A; I_{Bon} = 0.1 A; I_{Boff} = -0.1 A; T_{amb} = 25 °C		-	12	-	ns
t_r	rise time			-	160	-	ns
t_{on}	turn-on time			-	172	-	ns
t_s	storage time			-	525	-	ns
t_f	fall time			-	195	-	ns
t_{off}	turn-off time			-	720	-	ns
f_T	transition frequency	V_{CE} = 10 V; I_C = 0.1 A; f = 100 MHz; T_{amb} = 25 °C		-	140	-	MHz
C_c	collector capacitance	V_{CB} = 10 V; I_E = 0 A; i_e = 0 A; f = 1 MHz; T_{amb} = 25 °C		-	18	-	pF

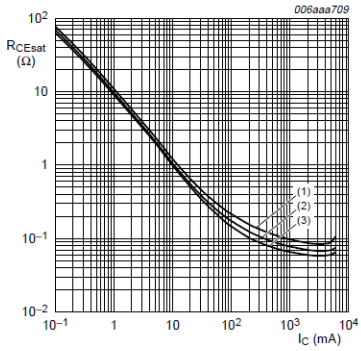
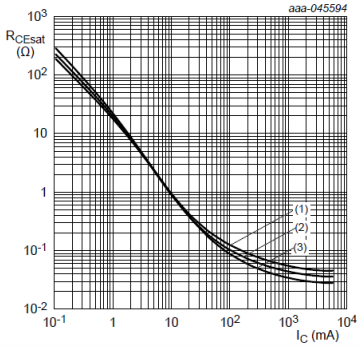
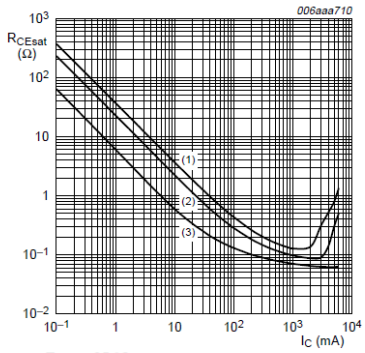
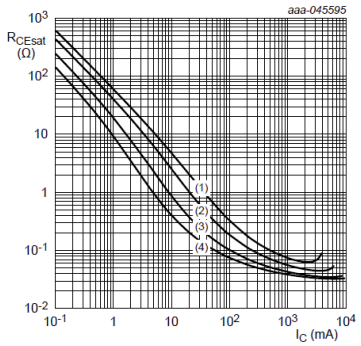
All information provided in this document is subject to legal disclaimers. © 2026 Nexperia B.V. / XTE-0010 V1.3.

Table 15: Data sheet update characteristics PBSS303ND and PBSS303ND -Q

Current	New
 T_{amb} = 25 °C **Fig 7. Collector current as a function of collector-emitter voltage; typical values**	 T_{amb} = 25 °C **Fig. 7. Collector current as a function of collector-emitter voltage; typical values**
 I_C/I_B = 20 (1) T_{amb} = 100 °C (2) T_{amb} = 25 °C (3) T_{amb} = –55 °C **Fig 10. Collector-emitter saturation voltage as a function of collector current; typical values**	 I_C/I_B = 20 (1) T_{amb} = 100 °C (2) T_{amb} = 25 °C (3) T_{amb} = -55 °C **Fig. 10. Collector-emitter saturation voltage as a function of collector current; typical values**
 T_{amb} = 25 °C (1) I_C/I_B = 100 (2) I_C/I_B = 50 (3) I_C/I_B = 10 **Fig 11. Collector-emitter saturation voltage as a function of collector current; typical values**	 T_{amb} = 25 °C (1) I_C/I_B = 100 (2) I_C/I_B = 50 (3) I_C/I_B = 20 (4) I_C/I_B = 10 **Fig. 11. Collector-emitter saturation voltage as a function of collector current; typical values**

All information provided in this document is subject to legal disclaimers. © 2026 Nexperia B.V. / XTE-0010 V1.3.

Table 15: Data sheet update characteristics PBSS303ND and PBSS303ND -Q

Current	New
 I_C/I_B = 20 (1) T_{amb} = 100 °C (2) T_{amb} = 25 °C (3) T_{amb} = –55 °C Fig 12. Collector-emitter saturation resistance as a function of collector current; typical values	 I_C/I_B = 20 (1) T_{amb} = 100 °C (2) T_{amb} = 25 °C (3) T_{amb} = -55 °C Fig. 12. Collector-emitter saturation resistance as a function of collector current; typical values
 T_{amb} = 25 °C (1) I_C/I_B = 100 (2) I_C/I_B = 50 (3) I_C/I_B = 10 Fig 13. Collector-emitter saturation resistance as a function of collector current; typical values	 T_{amb} = 25 °C (1) I_C/I_B = 100 (2) I_C/I_B = 50 (3) I_C/I_B = 20 (4) I_C/I_B = 10 Fig. 13. Collector-emitter saturation resistance as a function of collector current; typical values

6.2 Thermal performance

Thermal parameters remain unchanged, in specification and with the same distribution.

7. Comparison of visual appearance

There is no change of visual appearance (within specification).

8. Traceability

Changed products can be identified by the different die design and date code after implementation.

9. Conclusion

All information provided in this document is subject to legal disclaimers. © 2026 Nexperia B.V. / XTE-0010 V1.3.

The products do not change functionally. Nexperia does not anticipate any impact on fit, form, function, and reliability.

10. Legal Disclaimer

All rights reserved. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice. No liability will be accepted by the publisher for any consequence of its use. Publication thereof does not convey nor imply any license under patent – or other industrial or intellectual property rights.

All information herein is per Nexperia's best knowledge. This document does not provide for any representation or warranty expressed or implied by Nexperia.

PCN no. CN-202602011F
Subject Release of 8 inch wafer diameter and copper wire for low VCEsat transistors in SOT457

12NC	product name	package name	#1 SEM-DS-01 Change of data sheet parameters/electrical specification (min./max./typ. values) and/or AC/DC specification Old	#1 SEM-DS-01 Change of data sheet parameters/electrical specification (min./max./typ. values) and/or AC/DC specification New	#2 SEM-DE-01 Design changes in active elements. Old	#2 SEM-DE-01 Design changes in active elements. New	#3 SEM-DE-02 Design changes in routing Old	#3 SEM-DE-02 Design changes in routing New	#4 SEM-DE-03 Die shrink Old	#4 SEM-DE-03 Die shrink New	#5 SEM-PW-02 New wafer diameter Old	#5 SEM-PW-02 New wafer diameter New	#6 SEM-PW-04 Change of electrically active doping/implantation element Old	#6 SEM-PW-04 Change of electrically active doping/implantation element New	#7 SEM-PW-06 New / change of backside operation (grinding / metallization) Old	#7 SEM-PW-06 New / change of backside operation (grinding / metallization) New	#8 SEM-PW-07 New / Change of metallization / vias / contacts Old	#8 SEM-PW-07 New / change of metallization / vias / contacts New	#9 SEM-PW-08 New / change of passivation or die coating (without bare die) Old	#9 SEM-PW-08 New / change of passivation or die coating (without bare die) New	#10 SEM-PW-14 Lithography Old	#10 SEM-PW-14 Lithography New	#11 SEM-PA-08 Change of wire bonding Old	#11 SEM-PA-08 Change of wire bonding New	#12 SEM-PA-11 Change of mold compound / encapsulation material Old	#12 SEM-PA-11 Change of mold compound / encapsulation material New
934059129115	PBS302ND	SOT457	see Self Qualification Report	see Self Qualification Report	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	1.03 mm x 1.8 mm	1.02 mm x 1.52 mm	150 mm	200 mm	Substrate doping element: Antimony (Sb)	Substrate doping element: Arsenic (As)	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934059129125	PBS302ND	SOT457	see Self Qualification Report	see Self Qualification Report	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	1.03 mm x 1.8 mm	1.02 mm x 1.52 mm	150 mm	200 mm	Substrate doping element: Antimony (Sb)	Substrate doping element: Arsenic (As)	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934664888115	PBS302ND-Q	SOT457	see Self Qualification Report	see Self Qualification Report	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	1.03 mm x 1.8 mm	1.02 mm x 1.52 mm	150 mm	200 mm	Substrate doping element: Antimony (Sb)	Substrate doping element: Arsenic (As)	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934664888125	PBS302ND-Q	SOT457	see Self Qualification Report	see Self Qualification Report	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	1.03 mm x 1.8 mm	1.02 mm x 1.52 mm	150 mm	200 mm	Substrate doping element: Antimony (Sb)	Substrate doping element: Arsenic (As)	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934059132115	PBS302PD	SOT457	---	---	see tab "Design", #2	see tab "Design", #2	see tab "Design", #2	see tab "Design", #2	1.03 mm x 1.8 mm	1.02 mm x 1.625 mm	150 mm	200 mm	---	---	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934059132125	PBS302PD	SOT457	---	---	see tab "Design", #2	see tab "Design", #2	see tab "Design", #2	see tab "Design", #2	1.03 mm x 1.8 mm	1.02 mm x 1.625 mm	150 mm	200 mm	---	---	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934668872115	PBS302PD-Q	SOT457	---	---	see tab "Design", #2	see tab "Design", #2	see tab "Design", #2	see tab "Design", #2	1.03 mm x 1.8 mm	1.02 mm x 1.625 mm	150 mm	200 mm	---	---	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934668872125	PBS302PD-Q	SOT457	---	---	see tab "Design", #2	see tab "Design", #2	see tab "Design", #2	see tab "Design", #2	1.03 mm x 1.8 mm	1.02 mm x 1.625 mm	150 mm	200 mm	---	---	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934060013115	PBS303ND	SOT457	see Self Qualification Report	see Self Qualification Report	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	1.03 mm x 1.8 mm	1.02 mm x 1.52 mm	150 mm	200 mm	Substrate doping element: Antimony (Sb)	Substrate doping element: Arsenic (As)	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934668873115	PBS303ND-Q	SOT457	see Self Qualification Report	see Self Qualification Report	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	1.03 mm x 1.8 mm	1.02 mm x 1.52 mm	150 mm	200 mm	Substrate doping element: Antimony (Sb)	Substrate doping element: Arsenic (As)	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934060015115	PBS303PD	SOT457	see Self Qualification Report	see Self Qualification Report	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	1.03 mm x 1.8 mm	1.02 mm x 1.52 mm	150 mm	200 mm	---	---	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934668890115	PBS303PD-Q	SOT457	see Self Qualification Report	see Self Qualification Report	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	1.03 mm x 1.8 mm	1.02 mm x 1.52 mm	150 mm	200 mm	---	---	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934058273115	PBS544200	SOT457	see Self Qualification Report	see Self Qualification Report	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	1.03 mm x 1.8 mm	1.02 mm x 1.52 mm	150 mm	200 mm	Substrate doping element: Antimony (Sb)	Substrate doping element: Arsenic (As)	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934664889115	PBS544200-Q	SOT457	see Self Qualification Report	see Self Qualification Report	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	1.03 mm x 1.8 mm	1.02 mm x 1.52 mm	150 mm	200 mm	Substrate doping element: Antimony (Sb)	Substrate doping element: Arsenic (As)	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934057954115	PBS544400	SOT457	see Self Qualification Report	see Self Qualification Report	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	1.03 mm x 1.8 mm	1.02 mm x 1.52 mm	150 mm	200 mm	Substrate doping element: Antimony (Sb)	Substrate doping element: Arsenic (As)	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934668874115	PBS544400-Q	SOT457	see Self Qualification Report	see Self Qualification Report	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	1.03 mm x 1.8 mm	1.02 mm x 1.52 mm	150 mm	200 mm	Substrate doping element: Antimony (Sb)	Substrate doping element: Arsenic (As)	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934058274115	PBS554200	SOT457	see Self Qualification Report	see Self Qualification Report	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	1.03 mm x 1.8 mm	1.02 mm x 1.52 mm	150 mm	200 mm	---	---	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934668875115	PBS554200-Q	SOT457	see Self Qualification Report	see Self Qualification Report	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	see tab "Design", #1	1.03 mm x 1.8 mm	1.02 mm x 1.52 mm	150 mm	200 mm	---	---	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934057955115	PBS554400	SOT457	---	---	see tab "Design", #2	see tab "Design", #2	see tab "Design", #2	see tab "Design", #2	1.03 mm x 1.8 mm	1.02 mm x 1.625 mm	150 mm	200 mm	---	---	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT
934664891115	PBS554400-Q	SOT457	---	---	see tab "Design", #2	see tab "Design", #2	see tab "Design", #2	see tab "Design", #2	1.03 mm x 1.8 mm	1.02 mm x 1.625 mm	150 mm	200 mm	---	---	Au/Ag/Ni/AlSiCu Thickness 2.25 µm	Au/Ag/Ni/AlSiCu Thickness 1.75 µm	Al 4.1 µm	Al 2.2 µm	N/A	silicon nitride	full field	stepper	gold wire	copper wire	Hysol GR646 | Panasonic 3400FPG-9	Hysol GR646CHNA3 | Sumitomo EME-E500HT