



Issue date: March 2, 2026

Satoshi Fujitani
Director
LSIs Production Headquarters
ROHM Co., Ltd.

Notification of Product/Process Change
Doc. No.: 1026004

This letter intends as a formal notification of change to products which are currently supplied by ROHM Co., Ltd.

ROHM Co., Ltd. requires customers to provide acknowledgment of the receipt of this notification within 30 days from the date of this notice. Lack of acknowledgment of this notice within 30 days is considered as acceptance of the change.

After acknowledgement of the customer, lack of additional response within 90 day period constitutes acceptance of the change according to JEDEC Standard J-STD-046.

Your understanding and cooperation would be highly appreciated.

Issue Date: March 2, 2026

Title of change	Change in wafer factory from ROHM Headquarters to ROHM Apollo Chikugo and change in packaging materials due to production base reorganization.		
Affected product(s)	Manufacturer part number	Customer part number	
	See Attachment	See Attachment	
Detailed description of change	Before	After	
	Front-End Process: ROHM Headquarters 0.35μm CMOS. Back-End Process: See Attachment.	Front-End Process:ROHM Apollo Chikugo 0.35μm CMOS. Wire material change models feature thicker PAD metal. Back-End Process: See Attachment.	
Reason for change	We will restructure low-utilization, small-scale production lines and standardize materials to advance structural reforms that ensure a stable supply to our customers over the long term.		
Anticipated impact on quality	This change will have no impact on product quality.		
Identification of change	It can be identified by the internal model name on the product label.		
Planned first ship date	September 30, 2026	Sample available schedule :	March 2, 2026
Comments			
Supplier contact	Please contact the local ROHM sales office or the authorized distributor.		
Notes			



Electronics for the Future

No.1026004

Change in wafer factory from ROHM Headquarters to ROHM Apollo Chikugo and change in packaging materials due to production base reorganization.

March 2, 2026

LSI Production Headquarters

LSI-WP Engineering Div.

1. Description of change (1/2)

- Issue Date: March 2, 2026
- Doc. Number: 1026004
- Detailed description: The production sites for wafer processes and packaging materials will change. For wafer processes, one line will move from ROHM Headquarters to ROHM Apollo Chikugo. For packaging processes, the wire materials, mold materials, lead frames and die attach materials will change. Additionally, for models where the wire material has been changed, the PAD metal has been thickened. There are no changes to the land patterns or functions for all related part numbers.
- Reason for change: We will restructure low-utilization, small-scale production lines and standardize materials to advance structural reforms that ensure a stable supply to our customers over the long term.
- Schedule: Sample available date: March 3, 2026
PCN Response required by: September 30, 2026
Planned First Ship Date: September 30, 2026
- ROHM contact: Please contact our sales representative.

1. Description of change (2/2)

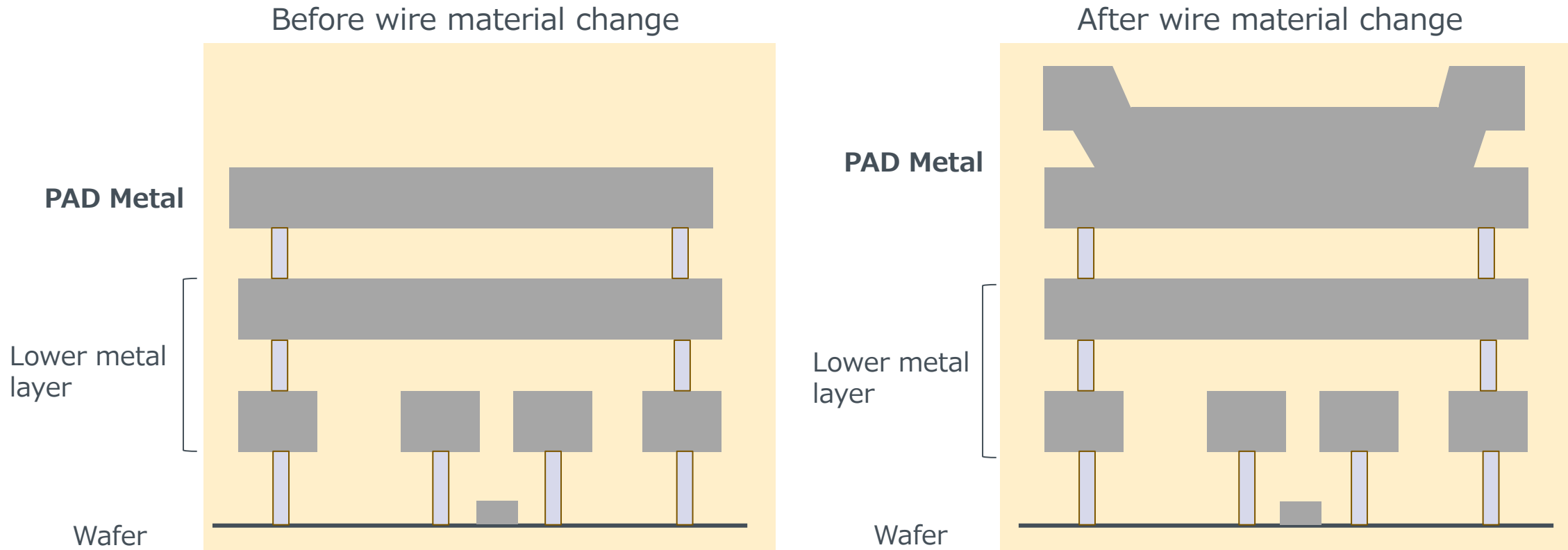
Changes	Before relocation	After relocation
Wafer Process	【Factory】 •ROHM Headquarters 200mm Kyoto City, Kyoto Prefecture	【Factory】 •ROHM Apollo Chikugo 200mm Chikugo City, Fukuoka Prefecture
	【Manufacturing Line】 0.35μm CMOS 【Process】 For models where the wire material has been changed, the PAD metal has been thickened.	
Assembly Process	【Materials】 To establish a stable supply system, we are standardizing materials and consolidating packaging. As a result, materials will change for some products.	
Inspection Process	No change	

The target lines for the wafer process are 0.35μm CMOS line, but there will be no changes to circuit design or chip size before and after relocation.

The packaging process varies depending on the product, so details are provided later.

2. PAD Metal Thickening Due to Wire Material Change

Schematic diagram of PAD metal thickening.



In transitioning the wire material from Au to a Cu-based material, an additional metal deposition process is implemented on the PAD metal, thereby increasing its thickness.

In addition, we have a proven track record of mass production application for the processes, structures, and metal materials related to PAD thickening.

3. Changes and Explanation Page

This page provides information on changes to the wafer/package process.

Item	Summary of Changes	Explanation Page
Wafer Process	ROHM Apollo Chikugo Overview	P.7~8
	CMOS line	P.9~11
Assembly Process	Changes to Packaging Materials	P.12~21

Changes to the Wafer Process

4. ROHM Apollo Chikugo Overview (1/2)

4-1) ROHM Apollo Chikugo Plant Overview

Company Name : ROHM Apollo Co.,Ltd.
Location : 883 Kamikitajima, Chikugo City,
Fukuoka Prefecture
Started Operation : November 1969
Production Item : LSI/TR
Production Capacity : LSI 6,000wafers/mth

4-2) 0.35 μ m CMOS Production Results

Production Line : 200mm
Production Start : 2004-
Production Volume : 6.7Bpcs (As of 2025)

4. ROHM Apollo Chikugo Overview (2/2)

Environmental management (Clean room)

Item		Method	Units	Rohm Headquarters 200mm (Before relocation)		ROHM Apollo Chikugo 200mm (After relocation)	
				Control value	Result	Control value	Result
Temperature		Thermometer	°C	22~24	22~24	21~25	22~24
Humidity		Hygrometer	%	35~55	40~50	35~55	40~50
Cleanliness	Passage	Particles Counter	pcs/cf	35 (0.1µm)	<10	35 (0.1µm)	<10
	Work Area				<10		<10
	Mask area				<10		<10

There is no difference in environmental management (clean room) between factories, both in terms of management methods and actual values.

5. 0.35μm CMOS line 4M Change points

4M Change points

4M		Rohm Headquarters 200mm (Before relocation)	ROHM Apollo Chikugo 200mm (After relocation)	Comparison
Man	-	All operators are certified by the company to perform the tasks and work in accordance with the work standards.		Equal
Machine	Equipment in use Other than the same method	The same type of equipment is used with no differences.		Equal
	Factory Management	Comply with the QC Operation Manual.		Equal
	Management Method	Comply with the QC Operation Manual, and SPC control shall be applied.		Equal
	Conveying	Cart / Robot cart		Equal
Material	Wafer	200mm Si wafer		Equal
	Materials/Gases	No change		Equal
Method	Manufacturing conditions	Comply with the QC Operation Manual.		Equal
	Out of Control Limits Lot Treatment	Comply with the quality abnormality measures rule.		Equal
	Inspection	Comply with the inspection standard.		Equal

All 4M changes are equal.

6-1) Basic Characteristics: Process Capability of Main Element Characteristics

Process capability of primary device characteristics of 0.35um CMOS lines at ROHM Wako and ROHM Hamamatsu are compared.

Samples are from 40 mass production lots. All items show Cpk>1.67, ensuring excellent process capability.

Item	ROHM Headquarters (Before relocation)		ROHM Apollo Chikugo (After relocation)		Target
	Cp	Cpk	Cp	Cpk	
NMOS Tr Vth	>1.67	>1.67	1.85	1.68	Cpk>1.67
PMOS Tr Vth	>1.67	>1.67	2.19	1.81	
CONT CR	2.36	2.16	4.45	4.31	
1VIA CR	2.59	2.45	2.81	1.97	

6-2) Basic Characteristics : Chip Yield

ROHM Headquarters (Before relocation)	ROHM Apollo Chikugo (After relocation)
1.024	1.021

There are no apparent differences between the two factories, and chip yield is equivalent.

N=10Lot

*Number of good chips after wafer inspection / Number of standard good chips (arb.unit)

6-3) Basic Characteristics : Wafer-Level Reliability Test Results


Test Items	Test Symbol	Evaluation criteria	Results Judgment
Time Dependent Dielectric Breakdown	TDDB	Have a lifespan of more than 15 years	Pass
Negative Bias Temperature Instability	NBTI		Pass
Hot Carrier Injection	HCI		Pass
Electromigration	EM		Pass
Stressmigration	SM	Be able to judge that it has a lifespan of 1000 h or more.	Pass

Since each test item meets the pass/fail criteria, there is no problem.

Changes to the Packaging Process

7. Changing Points on back-end process (1/2)

To ensure a stable supply to our customers in the future, we will standardize materials. So, there are changing point on some package material.

Part number	Internal part number	Package type	Changing points	Pattern
BU52737GWZ-E2		UCSP35L1	<p style="text-align: center;">There are no changing points on back-end process.</p>	-
BU12TD2WNVX-TL		SSON004X1010		
BU13TD2WNVX-TL		SSON004X1010		
BU15TD2WNVX-TL		SSON004X1010		
BU18TD2WNVX-TL		SSON004X1010		
BU25TD2WNVX-TL		SSON004X1010		
BU27TD2WNVX-TL		SSON004X1010		
BU28TD2WNVX-TL		SSON004X1010		
BU29TD2WNVX-TL		SSON004X1010		
BU33TD2WNVX-TL		SSON004X1010		
BU9794AKV-E2		VQFP64	<div style="border: 1px solid gray; border-radius: 10px; padding: 5px; display: inline-block;">Wire Material</div>	

Note: For products with an internal part number, the details of the changes may differ depending on the internal part number, even if the part number is the same.

7. Changing Points on back-end process (2/2)

To ensure a stable supply to our customers in the future, we will standardize materials. So, there are changing point on some package material.

Part number	Internal part number	Package type	Changing points	Pattern
BU10TD3WG-TR		SSOP5	<div style="display: flex; justify-content: center; gap: 20px;"> <div style="border: 1px solid gray; padding: 5px; background-color: #f0f0f0;">Die attach</div> <div style="border: 1px solid gray; padding: 5px; background-color: #f0f0f0;">Wire Material</div> </div>	<div style="background-color: #007bff; color: white; padding: 10px; border-radius: 5px; width: 30px; margin: 0 auto;">B</div>
BU11TD3WG-GTR		SSOP5		
BU12TD3WG-TR	BU12TD3WG-TR	SSOP5		
BU13TD3WG-GTR		SSOP5		
BU15TD3WG-TR	BU15TD3WG-TR	SSOP5		
BU18TD3WG-TR		SSOP5		
BU1CTD3WG-TR		SSOP5		
BU1JTD3WG-TR	BU1JTD3WG-TR	SSOP5		
BU25TD3WG-TR	BU25TD3WG-TR	SSOP5		
BU26TD3WG-TR		SSOP5		
BU27TD3WG-TR		SSOP5		
BU28TD3WG-TR		SSOP5		
BU29TD3WG-TR		SSOP5		
BU2JTD3WG-TR		SSOP5		
BU30TD3WG-TR		SSOP5		
BU31TD3WG-TR		SSOP5		
BU33TD3WG-TR		SSOP5		
BU1JTD3WG-TR	BU1JTD3WG-MTR	SSOP5	<div style="display: flex; justify-content: center; gap: 20px;"> <div style="border: 1px solid gray; padding: 5px; background-color: #f0f0f0;">Die attach</div> <div style="border: 1px solid gray; padding: 5px; background-color: #f0f0f0;">Wire Material</div> </div>	<div style="background-color: #28a745; color: white; padding: 10px; border-radius: 5px; width: 30px; margin: 0 auto;">C</div>
BU25TD3WG-TR	BU25TD3WG-MTR	SSOP5		
BU7150NUV-E2	BU7150NUV-BZE2	VSON010V3030	<div style="display: flex; justify-content: space-around; gap: 20px;"> <div style="border: 1px solid gray; padding: 5px; background-color: #f0f0f0;">Die attach</div> <div style="border: 1px solid gray; padding: 5px; background-color: #f0f0f0;">Mold Material</div> </div>	<div style="background-color: #dc3545; color: white; padding: 10px; border-radius: 5px; width: 30px; margin: 0 auto;">D</div>
BU7150NUV-E2	BU7150NUV-E2	VSON010V3030	<div style="display: flex; justify-content: space-around; gap: 20px;"> <div style="border: 1px solid gray; padding: 5px; background-color: #f0f0f0;">Die attach</div> <div style="border: 1px solid gray; padding: 5px; background-color: #f0f0f0;">Wire Material</div> <div style="border: 1px solid gray; padding: 5px; background-color: #f0f0f0;">Mold Material</div> </div>	<div style="background-color: #6f42c1; color: white; padding: 10px; border-radius: 5px; width: 30px; margin: 0 auto;">E</div>

Note: For products with an internal part number, the details of the changes may differ depending on the internal part number, even if the part number is the same.

8. Comparison of 4M on back-end

This page provides information about products in patterns A to E.



Products before relocation and products after relocation will be produced with the equivalent Machine and Method.

		Before relocation		After relocation		Changing point
Package Name		Refer to Parts List		Refer to Parts List		No change
Factory	Assembly	Production Site	ROHM Electronics Philippines, Inc.	Rohm Integrated Systems Thailand Co., Ltd	Same as the left	No change
		Country	Philippines	Thailand	Same as the left	
		personnel	Approximately 4,000 people	Approximately 1,300 people	Same as the left	
		Cleanroom Design	Below		Below	
		DB - WB process	Class 10,000		Same as the left	
		Molding process	Class 100,000		Same as the left	
	Test	Production Site	ROHM Electronics Philippines, Inc.	Rohm Integrated Systems Thailand Co., Ltd	Same as the left	No change
		Country	Philippines	Thailand	Same as the left	
Man	Assembly	Qualified operators		Same as the left	No change	
	Test	Qualified operators		Same as the left		
Machine	Assembly	Die bonding process	Fully automatic die bonding machine		Same (Some machine is different type)	Although the equipment type will change for some packages, we will use fully automated production equipment equivalent to that of the existing production line.
		Wire bonding process	Fully automatic wire bonding machine		Same (Some machine is different type)	
		Molding process	Fully automatic molding machine		Same (Some machine is different type)	
		Tie bar cutting process	Fully automatic tie bar cutting machine		Same (Some machine is different type)	
		Plating process	Fully automatic plating machine		Same (Some machine is different type)	
		Marking process	Fully automatic laser marking machine		Same (Some machine is different type)	
		Lead forming process	Fully automatic forming machine		Same (Some machine is different type)	
	Test	Test handler	Fully automatic handler		Same as the left	No change
		Tester	Fully automatic tester		Same as the left	
	Taping	Taping process	Fully automatic taping machine		Same as the left	No change
Method	Assembly	Die bonding process	Ag paste dispensing		Same as the left	In each process step, the method remains the same, and there are no changes. Production conditions have been adjusted due to material change.
		Wire bonding process	Thermo-sonic bonding		Same as the left	
		Molding process	Transfer molding		Same as the left	
		Plating process	Electroplating		Same as the left	
	Test	Test process	Socket contact		Same as the left	No change
Material	Assembly	Please see next page		Please see next page		-

9. Comparison of 4M (Package Material) (1/5)

This page provides information about products in patterns A.



The only difference between Products before relocation and products after relocation is the wire material. We have verified this change and confirmed there are no impact on quality.

		Before relocation	After relocation	Changing point
Lead Frame	Frame size	ROHM Standard design	Same as the left	No change
	Inner design	ROHM Standard design	Same as the left	
	Base Material	Cu alloy	Same as the left	
	Surface plating	Ag plating	Same as the left	
Die attach		Ag paste	Same as the left	No change
Wire material		Au	Cu	Wire material has been changed
Mold compound		Halogen free resin	Same as the left	No change
Outer plating		100%Sn	Same as the left	No change
Marking		Laser marking	Same as the left	No change
Carrier tape		ROHM standard material	Same as the left	No change
Reel		ROHM standard material	Same as the left	No change
Box		ROHM standard material	Same as the left	No change

9. Comparison of 4M (Package Material) (2/5)

This page provides information about products in patterns B.



For Products before relocation and products after relocation, die attach material and wire material will be changed. We have verified these changes and confirmed that they have no impact on quality.

		Before relocation	After relocation	Changing point
Lead Frame	Frame size	ROHM Standard design	Same as the left	No change
	Inner design	ROHM Standard design	Same as the left	
	Base Material	Cu alloy	Same as the left	
	Surface plating	Ag plating	Same as the left	
Die attach		Ag paste (A)	Ag paste (B)	Ag paste has been changed
Wire material		Au	Cu	Wire material has been changed
Mold compound		Halogen free resin	Same as the left	No change
Outer plating		100%Sn	Same as the left	No change
Marking		Laser marking	Same as the left	No change
Carrier tape		ROHM standard material	Same as the left	No change
Reel		ROHM standard material	Same as the left	No change
Box		ROHM standard material	Same as the left	No change

9. Comparison of 4M (Package Material) (3/5)

This page provides information about products in patterns C.



For Products before relocation and products after relocation, die attach material and wire material will be changed. We have verified these changes and confirmed that they have no impact on quality.

		Before relocation	After relocation	Changing point
Lead Frame	Frame size	ROHM Standard design	Same as the left	No change
	Inner design	ROHM Standard design	Same as the left	
	Base Material	Cu alloy	Same as the left	
	Surface plating	Ag plating	Same as the left	
Die attach		Ag paste (A)	Ag paste (B)	Ag paste has been changed
Wire material		Au	PdCu	Wire material has been changed
Mold compound		Halogen free resin	Same as the left	No change
Outer plating		100%Sn	Same as the left	No change
Marking		Laser marking	Same as the left	No change
Carrier tape		ROHM standard material	Same as the left	No change
Reel		ROHM standard material	Same as the left	No change
Box		ROHM standard material	Same as the left	No change

9. Comparison of 4M (Package Material) (4/5)

This page provides information about products in patterns D.



For Products before relocation and products after relocation, die attach material and molding compound will be changed. We have verified these changes and confirmed that they have no impact on quality.

		Before relocation	After relocation	Changing point
Lead Frame	Frame size	ROHM Standard design	Same as the left	No change
	Inner design	ROHM Standard design	Same as the left	
	Base Material	Cu alloy	Same as the left	
	Surface plating	Ag plating	Same as the left	
Die attach		Ag paste (A)	Ag paste (B)	Ag paste has been changed
Wire material		Cu	Cu	No change
Mold compound		Halogen free resin (A)	Halogen free resin (B)	Mold compound has been changed
Outer plating		100%Sn	Same as the left	No change
Marking		Laser marking	Same as the left	No change
Carrier tape		ROHM standard material	Same as the left	No change
Reel		ROHM standard material	Same as the left	No change
Box		ROHM standard material	Same as the left	No change

9. Comparison of 4M (Package Material) (5/5)

This page provides information about products in patterns E.



For Products before relocation and products after relocation, die attach material, wire material and molding compound will be changed. We have verified these changes and confirmed that they have no impact on quality.

		Before relocation	After relocation	Changing point
Lead Frame	Frame size	ROHM Standard design	Same as the left	No change
	Inner design	ROHM Standard design	Same as the left	
	Base Material	Cu alloy	Same as the left	
	Surface plating	Ag plating	Same as the left	
Die attach		Ag paste (A)	Ag paste (B)	Ag paste has been changed
Wire material		Au	Cu	Wire material has been changed
Mold compound		Halogen free resin (A)	Halogen free resin (B)	Mold compound has been changed
Outer plating		100%Sn	Same as the left	No change
Marking		Laser marking	Same as the left	No change
Carrier tape		ROHM standard material	Same as the left	No change
Reel		ROHM standard material	Same as the left	No change
Box		ROHM standard material	Same as the left	No change

10. Comparison of products

This page provides information about products in patterns A to E.



There are no changes to external dimensions or product characteristics between Products before relocation and products after relocation.

Item	Comparison of Products before relocation and products after relocation
External dimensions	No change
Internal structures	No change
Reference land pattern	No change
Product characteristics	There are no changes to the characteristic specified listed in the datasheet.



Electronics for the Future

Public (External) PN
BU10TD3WG-TR
BU11TD3WG-GTR
BU12TD2WNVX-TL
BU12TD3WG-TR
BU12TD3WG-TR
BU13TD2WNVX-TL
BU13TD3WG-GTR
BU15TD2WNVX-TL
BU15TD3WG-TR
BU15TD3WG-TR
BU18TD2WNVX-TL
BU18TD3WG-TR
BU1CTD3WG-TR
BU1JTD3WG-TR
BU1JTD3WG-TR
BU25TD2WNVX-TL
BU25TD3WG-TR
BU25TD3WG-TR
BU26TD3WG-TR
BU27TD2WNVX-TL
BU27TD3WG-TR
BU28TD2WNVX-TL
BU28TD3WG-TR
BU29TD2WNVX-TL
BU29TD3WG-TR
BU2JTD3WG-TR
BU30TD3WG-RTR
BU30TD3WG-TR
BU31TD3WG-TR
BU33TD2WNVX-TL
BU33TD3WG-GTR
BU33TD3WG-TR
BU52737GWZ-E2
BU7150NUV-E2
BU7150NUV-E2
BU91R13CH-M3BW
BU9794AKV-E2