

PRODUCT / PROCESS CHANGE NOTIFICATION

Generic Copy

PCN#2307001-AU

• DATE: 27th July, 2023

PCN Subject: Wafer Manufacturing Site Change for ZENER products

• **PCN Change Category:**

- ☒ **Material**

 ☐ **Process**

 ☐ **Datasheet/Specification**
☐ **Reliability**
☒ **Others (Wafer Manufacturing Site change)**

• **Description of Change Purpose or Reason:**

This PCN is issued to notify customers that our foundry fab “Phenitec Semiconductor Corporation” will transfer wafer manufacturing site from “HQ Fab” to “1st Fab” which both sites are located in Okayama, Japan. Along with manufacturing site change, the wafer diameter changed from 5” to 6” and several additional change for selected products will be implemented in order to ensure continuous supply and manufacturing standardization. For more detail, please check below change information

We recommend that you acknowledge receipt of this notification within 30 days of this PCN date. If you require samples for further evaluation, please feel free to contact your local sales representative and make a request. We are always pleased to serve you at any time.

• **Change Information:**

Table	Table 1		Table 2	
Comparison	From (Current)	Change to (New)	From (Current)	Change to (New)
Wafer Foundry	PHENITEC SEMICONDUCTOR CORP.		PHENITEC SEMICONDUCTOR CORP.	
Manufacturing Site	HQ Fab	1st Fab	HQ Fab	1 st Fab
Wafer Diameter (inch)	5"	6"	5"	6"
Passivation	-	SiN	-	SiN
Topside Metal	Ti/Al	Ti/Al/AlSiCu	Ti/Al	Ti/Al/AlSiCu
Backside Metal	AuAs	Ti/Ni/Sn	Ti/Ni/Sn	

• **Verification /Qualification Data:**

The electrical characterization and high reliability testing have been completed on representative part numbers to ensure there is no change to device functionality or electrical specifications in the datasheet. There will be no change to the Form, Fit, or Function of products affected.

• **Affected Product Type : Refer to below Table.**

• **Effective Date : 29th January, 2024**

➤ **The reliability test results are summarized below:**

Product reliability test result: PASS

No.	DESCRIPTION	TEST CONDITION	DURATION	FAILURE RATE	
1	Steady State Operational (SSOP)	IZ max, Ta to rated Tj.	1000 HOURS	0/77 PCS	3 LOTS PASS
2	Temperature Cycling (TCT)	Ta = -55°C ~ +150°C (2 cycles / Hour)	1000 CYCLES	0/77 PCS	3 LOTS PASS
3	Autoclave (AC)	Ta = 121°C, P = 29.7psia, 100%RH	96 HOURS	0/77 PCS	3 LOTS PASS
4	High Humidity High Temp. Reverse Bias(H3TRB)	TA = 85°C +/-2°C RH = 85% +/-5% VR = 80%VB DC Supply	1000 HOURS	0/77 PCS	3 LOTS PASS
5	Intermittent Forward Operation Life (IOL)	$\Delta T_j \geq 100^\circ\text{C}$, POWER ON: 2 mins; POWER OFF: 2 mins.	15000 CYCLES	0/77 PCS	3 LOTS PASS
6	Resistance to Solder Heat (RSH)	Temperature of solder pot = 260 +5/-0°C Time for dipping in solder = 10 ± 1 Sec	1 CYCLE	0/30 PCS	3 LOTS PASS

- **ELECTRICAL CHARACTERISTICS SUMMARY:**

There is no change to the product electrical specifications.

- **SAMPLES NEED :**

Contact your local PANJIT sales representative.

- **TECHNICAL CONTACT :**

E-mail: jwchen@panjit.com.tw

- **FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact your local PANJIT sales representative.

- **ADDITIONAL RELIABILITY :**

Contact your local PANJIT sales representative.

- **CHANGED PART IDENTIFICATION :**

The tracking of 1st delivery after change can be identified by production lot number. Please contact your local sales for tracking lot number.

Please refer to below Lot number rule:

Lot number: **3924XXXXX**.

1st digit "3" denotes Year 2023.

2nd digit "9" denotes September.

3rd and 4th digits denote Day.

From 5th digits (XXXXX) denotes production serial number.

● **Table 1 : Affected Product Type**

Function: ZENER Diodes					
AZ23C3V3-AU	AZ23C4V7-AU	BZT52-B2V4-AU	BZT52-B2V4S-AU	BZT52-B2V7-AU	BZT52-B2V7S-AU
BZT52-B3-AU	BZT52-B3S-AU	BZT52-B3V3-AU	BZT52-B3V3S-AU	BZT52-B3V6-AU	BZT52-B3V6S-AU
BZT52-B3V9-AU	BZT52-B3V9S-AU	BZT52-B4V3-AU	BZT52-B4V3S-AU	BZT52-B4V7-AU	BZT52-B4V7S-AU
BZT52-B5V1-AU	BZT52-B5V1S-AU	BZT52-C2V4-AU	BZT52-C2V4S-AU	BZT52-C2V7-AU	BZT52-C2V7S-AU
BZT52-C3-AU	BZT52-C3S-AU	BZT52-C3V3-AU	BZT52-C3V3S-AU	BZT52-C3V6-AU	BZT52-C3V6S-AU
BZT52-C3V9-AU	BZT52-C3V9S-AU	BZT52-C4V3-AU	BZT52-C4V3S-AU	BZT52-C4V7-AU	BZT52-C4V7S-AU
BZT52-C5V1-AU	BZT52-C5V1S-AU	BZX584B5V1-AU	BZX584C2V4-AU	BZX584C2V7-AU	BZX584C3-AU
BZX584C3V3-AU	BZX584C3V6-AU	BZX584C3V9-AU	BZX584C4V7-AU	BZX584C5V1-AU	BZX84B2V4-AU
BZX84B2V7-AU	BZX84B3-AU	BZX84B3V3-AU	BZX84B3V6-AU	BZX84B3V9-AU	BZX84B4V3-AU
BZX84B4V7-AU	BZX84B5V1-AU	BZX84C2V4-AU	BZX84C2V7-AU	BZX84C3-AU	BZX84C3V3-AU
BZX84C3V3W-AU	BZX84C3V6-AU	BZX84C3V9-AU	BZX84C4V3-AU	BZX84C4V7-AU	BZX84C4V7W-AU
BZX84C5V1-AU	MBZX84B4V7-AU	MMSZ5221B-AU	MMSZ5221BS-AU	MMSZ5222B-AU	MMSZ5223B-AU
MMSZ5224B-AU	MMSZ5225B-AU	MMSZ5225BS-AU	MMSZ5226B-AU	MMSZ5226BS-AU	MMSZ5227B-AU
MMSZ5228B-AU	MMSZ5228BS-AU	MMSZ5229A-AU	MMSZ5229B-AU	MMSZ5230A-AU	MMSZ5230AS-AU
MMSZ5230B-AU	MMSZ5231A-AU	MMSZ5231AS-AU	MMSZ5231B-AU	MMSZ5231BS-AU	PZD22B22C-AU
PZD22B2V4C-AU	PZD22B2V7C-AU	PZD22B3V0C-AU	PZD22B3V3C-AU	PZD22B3V6C-AU	PZD22B3V9C-AU
PZD22B4V3C-AU	PZD22B4V7C-AU	PZD22B5V1C-AU			

● **Table 2 : Affected Product Type**

Function: ZENER Diodes					
AZ23C5V1-AU	MMBZ5230B-AU	MMBZ5231B-AU			

Customer Acknowledgement Form

(To be filled out by the customer and returned to HQBU of PANJIT)

The indicated Customer Notification letter was received and acknowledged by the undersigned authority.

Company Name : _____

Customer Name : _____(Signature) Date : _____

PCN Number : PCN# 2307001-AU

Approval for the Product/Process change: ☐Yes ☐No

Comments/Additional requests:

Thanks for your attention on this matter. Please return the acknowledgment form to your local PANJIT sales representative.

Please note that no objection within 30 days upon receiving will be deemed as being accepted and agreed with this Process Change Notification.