

PRODUCT / PROCESS CHANGE NOTIFICATION

Generic Copy

PCN#2312002-AU

• DATE: 21st December, 2023

PCN Subject: Qualification of new structure for Bi-directional TVS Product in SMA package.

• **PCN Change Category:**

- ☒ **Material**

 ☒ **Process**

 ☐ **Datasheet/Specification**
☐ **Reliability**
☒ **Others (New clip design and new automation equipment)**

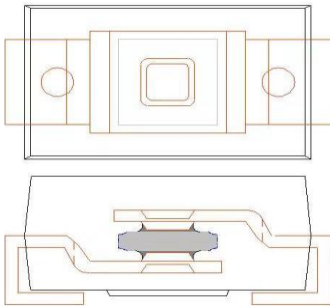
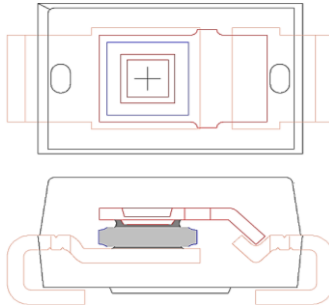
• **Description of Change Purpose or Reason:**

With the optimizing process flow and facilities automation, PANJIT will change SMA package device to a new in-line (die, soldering, trimming and forming) automation process equipment to upgrade both quality and production efficiency for Bi-directional TVS product. Please check the details of new clip structure as shown in below change information.

The last time buy opportunity is available for current package structure for last order placement until 21st December 2024 with final shipment date of 21st June 2025.

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:**

SMA package			From (Current)	Change to (New)
Material	Lead frame & Clip	Supplier	Bondtron Electronic Materials Co., Ltd.	Shuen Der Industry (Jiangsu) Co., Ltd.
Machine	Assembly Process Soldering / Molding / Trimming & Forming		Semi-automation	Fully-automation
Method	Trimming & Forming Process		Three-stage-T/F	Five-stage-T/F
	De-Flash Process		High-pressure water and quartz blasting	Punch
Form	Appearance		Smooth surface	Matte surface
Design	Package Structure		Two pieces with clip	Three pieces with clip
	Internal Structure			

● **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:**

Function: Transient Voltage Suppressors				
P4SMAJ10CA-AU	P4SMAJ100C-AU	P4SMAJ110CA-AU	P4SMAJ12CA-AU	P4SMAJ13CA-AU
P4SMAJ14CA-AU	P4SMAJ15CA-AU	P4SMAJ16CA-AU	P4SMAJ17CA-AU	P4SMAJ18CA-AU
P4SMAJ20CA-AU	P4SMAJ22CA-AU	P4SMAJ24CA-AU	P4SMAJ26CA-AU	P4SMAJ28CA-AU
P4SMAJ30CA-AU	P4SMAJ33CA-AU	P4SMAJ36CA-AU	P4SMAJ36C-AU	P4SMAJ40CA-AU
P4SMAJ43CA-AU	P4SMAJ45CA-AU	P4SMAJ48CA-AU	P4SMAJ51CA-AU	P4SMAJ54CA-AU
P4SMAJ58CA-AU	P4SMAJ60CA-AU	P4SMAJ70CA-AU	P4SMAJ75CA-AU	P4SMAJ8.5CA-AU
P4SMA18CA-AU	P4SMA24CA-AU	P4SMA27CA-AU	P4SMA30CA-AU	P4SMA33CA-AU
P4SMA36CA-AU	P4SMA39CA-AU	P4SMA43CA-AU	P4SMA47CA-AU	P4SMA56CA-AU
P4SMAJ100CA-AU	P4SMAJ120CA-AU	P4SMAJ24C-AU	P4SMAJ30C-AU	

- **Effective Date** : 21st June, 2024
- **Last Order Date** : 21st December, 2024
- **Last Shipment Date** : 21st June, 2025

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

Product reliability test result: PASS

No.	DESCRIPTION	TEST CONDITION	DURATION	FAILURE RATE	
1	High Temperature Reverse Bias (HTRB)	Ta = 140°C , VR = 100%VB, DC supply	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	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
6	Solder ability (SD)	Temperature of solder pot = 245 ±5°C Time for dipping in solder = 5 ±0.5 Sec	1 CYCLE	0/10 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.



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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#2312002-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.