

## PRODUCT / PROCESS CHANGE NOTIFICATION

### Generic Copy

**PCN#2207001**

• DATE: 19<sup>th</sup> July, 2022

**PCN Subject: Additional new structure to Bi-directional TVS product  
in SMA package**

• **PCN Change Category:**

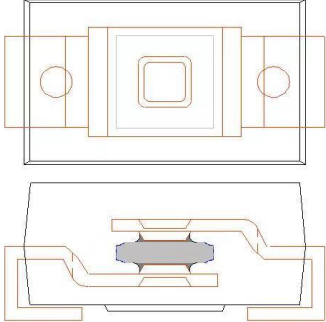
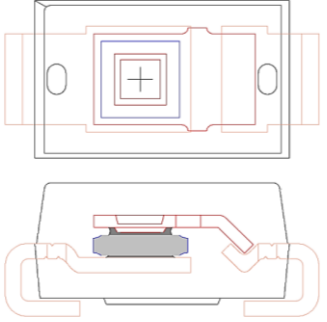
- Material**                       **Process**                       **Datasheet/Specification**  
 **Reliability**  
 **Others ( New clip design and new automation equipment )**

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

With the optimizing process flow and facilities automation, PANJIT will add SMA package device with a new in-line (die, clip bond and soldering) 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.

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			Current	Add
Material	Lead frame & Clip	Supplier	Bondtron Electronic Materials Co., Ltd.	Shuen Der Industry (Jiangsu) Co., Ltd. Suzhou SH Precision 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:** Refer to below Table 1.

• **Effective Date :** 19<sup>th</sup> October, 2022

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

Product reliability test result: PASS

No.	DESCRIPTION	TEST CONDITION	DURATION	FAILURE RATE	
1	Temperature Cycling (TCT)	Ta = -55°C ~ +150°C ( 2 cycles / Hour )	1000 CYCLES	0/77 PCS	3 LOTS PASS
2	High Temperature Storage Test (HTSL)	Ta = 150°C	1000 HOURS	0/77 PCS	3 LOTS PASS
3	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
4	High Temperature Reverse Bias (HTRB)	Ta = 140°C , VR = 100%VB, DC supply	1000 HOURS	0/77 PCS	3 LOTS PASS
5	Autoclave (AC)	Ta = 121°C, P = 29.7psia , 100%RH	96 HOURS	0/77 PCS	3 LOTS PASS
6	Temperature Humidity Storage (THS)	Ta = 85°C , RH= 85%	1000 HOURS	0/77 PCS	3 LOTS PASS
7	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

• **ELECTRICAL CHARACTERISTICS SUMMARY:**

There is no change to the product electrical specifications.

• **SAMPLES NEED :**

Contact your local PANJIT sales representative.

• **TECHNICAL CONTACT :**

E-mail: alanliu@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 1<sup>st</sup> 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: **2924XXXXX**.

1st digit "2" denotes Year 2022.

2nd digit "9" denotes September.

3rd and 4th digits denote Day.

From 5<sup>th</sup> digits (XXXXX) denotes production serial number.

● **Table 1 : Affected Product Type**

Function: Transient Voltage Suppressors						
P4SMA100C	P4SMA100CA	P4SMA100CAS	P4SMA10C	P4SMA10CA	P4SMA10CAS	P4SMA110C
P4SMA110CA	P4SMA110CAS	P4SMA11C	P4SMA11CA	P4SMA11CAS	P4SMA120C	P4SMA120CA
P4SMA120CAS	P4SMA12C	P4SMA12CA	P4SMA12CAS	P4SMA130C	P4SMA130CA	P4SMA130CAS
P4SMA13C	P4SMA13CA	P4SMA13CAS	P4SMA150C	P4SMA150CA	P4SMA150CAS	P4SMA15C
P4SMA15CA	P4SMA15CAS	P4SMA160C	P4SMA160CA	P4SMA160CAS	P4SMA16C	P4SMA16CA
P4SMA16CAS	P4SMA170C	P4SMA170CA	P4SMA170CAS	P4SMA180C	P4SMA180CA	P4SMA180CAS
P4SMA18C	P4SMA18CA	P4SMA18CAS	P4SMA200C	P4SMA200CA	P4SMA200CAS	P4SMA20C
P4SMA20CA	P4SMA20CAS	P4SMA220C	P4SMA220CA	P4SMA220CAS	P4SMA22C	P4SMA22CA
P4SMA22CAS	P4SMA24C	P4SMA24CA	P4SMA24CAS	P4SMA250C	P4SMA250CA	P4SMA250CAS
P4SMA27C	P4SMA27CA	P4SMA27CAS	P4SMA30C	P4SMA30CA	P4SMA30CAS	P4SMA33C
P4SMA33CA	P4SMA33CAS	P4SMA36C	P4SMA36CA	P4SMA36CAS	P4SMA39C	P4SMA39CA
P4SMA39CAS	P4SMA43C	P4SMA43CA	P4SMA43CAS	P4SMA47C	P4SMA47CA	P4SMA47CAS
P4SMA51C	P4SMA51CA	P4SMA51CAS	P4SMA56C	P4SMA56CA	P4SMA56CAS	P4SMA62C
P4SMA62CA	P4SMA62CAS	P4SMA68C	P4SMA68CA	P4SMA68CAS	P4SMA75C	P4SMA75CA
P4SMA75CAS	P4SMA82C	P4SMA82CA	P4SMA82CAS	P4SMA91C	P4SMA91CA	P4SMA91CAS
P4SMAJ100C	P4SMAJ100CA	P4SMAJ100CAS	P4SMAJ10C	P4SMAJ10CA	P4SMAJ10CAS	P4SMAJ10CA-TX
P4SMAJ110C	P4SMAJ110CA	P4SMAJ110CAS	P4SMAJ11C	P4SMAJ11CA	P4SMAJ11CAS	P4SMAJ120C
P4SMAJ120CA	P4SMAJ120CAS	P4SMAJ12C	P4SMAJ12CA	P4SMAJ12CAS	P4SMAJ130C	P4SMAJ130CA
P4SMAJ130CAS	P4SMAJ13C	P4SMAJ13CA	P4SMAJ13CAS	P4SMAJ14C	P4SMAJ14CA	P4SMAJ14CAS
P4SMAJ150C	P4SMAJ150CA	P4SMAJ150CAS	P4SMAJ15C	P4SMAJ15CA	P4SMAJ15CAS	P4SMAJ15CA-TX
P4SMAJ160C	P4SMAJ160CA	P4SMAJ160CAS	P4SMAJ16C	P4SMAJ16CA	P4SMAJ16CAS	P4SMAJ170C
P4SMAJ170CA	P4SMAJ170CAS	P4SMAJ17C	P4SMAJ17CA	P4SMAJ17CAS	P4SMAJ180C	P4SMAJ180CA
P4SMAJ180CAS	P4SMAJ18C	P4SMAJ18CA	P4SMAJ18CAS	P4SMAJ190C	P4SMAJ190CA	P4SMAJ190CAS
P4SMAJ200C	P4SMAJ200CA	P4SMAJ200CAS	P4SMAJ20C	P4SMAJ20CA	P4SMAJ20CAS	P4SMAJ210C
P4SMAJ210CA	P4SMAJ210CAS	P4SMAJ220C	P4SMAJ220CA	P4SMAJ220CAS	P4SMAJ22C	P4SMAJ22CA
P4SMAJ22CAS	P4SMAJ22CA-TX	P4SMAJ24C	P4SMAJ24CA	P4SMAJ24CAS	P4SMAJ24CA-TX	P4SMAJ26C
P4SMAJ26CA	P4SMAJ26CAS	P4SMAJ28C	P4SMAJ28CA	P4SMAJ28CAS	P4SMAJ30C	P4SMAJ30CA
P4SMAJ30CAS	P4SMAJ33C	P4SMAJ33CA	P4SMAJ33CAS	P4SMAJ36C	P4SMAJ36CA	P4SMAJ36CAS
P4SMAJ40C	P4SMAJ40CA	P4SMAJ40CAS	P4SMAJ43C	P4SMAJ43CA	P4SMAJ43CAS	P4SMAJ45C
P4SMAJ45CA	P4SMAJ45CAS	P4SMAJ48C	P4SMAJ48CA	P4SMAJ48CAS	P4SMAJ51C	P4SMAJ51CA
P4SMAJ51CAS	P4SMAJ54C	P4SMAJ54CA	P4SMAJ54CAS	P4SMAJ58C	P4SMAJ58CA	P4SMAJ58CAS
P4SMAJ60C	P4SMAJ60CA	P4SMAJ60CAS	P4SMAJ64C	P4SMAJ64CA	P4SMAJ64CAS	P4SMAJ70C
P4SMAJ70CA	P4SMAJ70CAS	P4SMAJ75C	P4SMAJ75CA	P4SMAJ75CAS	P4SMAJ78C	P4SMAJ78CA
P4SMAJ78CAS	P4SMAJ8.5C	P4SMAJ8.5CA	P4SMAJ8.5CAS	P4SMAJ85C	P4SMAJ85CA	P4SMAJ85CAS
P4SMAJ9.0C	P4SMAJ9.0CA	P4SMAJ9.0CAS	P4SMAJ90C	P4SMAJ90CA	P4SMAJ90CAS	



## 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#2207001

Approval for the Product/Process change: Yes No

Comments/Additional requests:

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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.