



# P1CH3.3A-AU ~ P1CH36A-AU Series

## SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

**Voltage**

**3.3~36 V**

**Power**

**150 W**

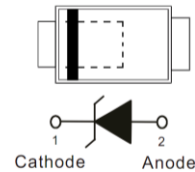
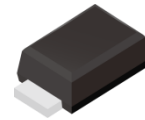
### Features

- Ultra thin profile package for space constrained utilization.
- High temperature soldering : 260°C/10 seconds at terminals
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

### Mechanical Data

- Case: Molded plastic, SOD-323HE
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color Band denotes cathode end

SOD-323HE



### Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power Dissipation(tp = 10/1000 us)	P <sub>PP</sub> <sup>(1,2)</sup>	150	W
Peak Pulse Current on tp = 10/1000 us waveform <sup>(Fig.2)</sup>	I <sub>PPM</sub> <sup>(1)</sup>	See table 1	A
ESD IEC61000-4-2(Air)	V <sub>ESD</sub>	±30	kV
ESD IEC61000-4-2(Contact)		±30	
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub> <sup>(3)</sup>	300	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55~150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C



## P1CH3.3A-AU ~ P1CH36A-AU Series

### Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

Part Number	$V_{RWM}$	$V_{BR}$			$I_R@V_{RWM}$	$V_C@I_{PP}$		Marking Code
		Min.	Max.	$I_T$		V	A	
	V	V	V	mA	uA			
150W Transient Voltage Suppressor								
P1CH3.3A-AU	3.3	5.2	6	10	50	8.5	17.6	2E1
P1CH5.0A-AU	5	6.4	7	10	5	9.2	16.3	2E2
P1CH6.0A-AU	6	6.67	7.37	10	5	10.3	14.5	2E3
P1CH6.5A-AU	6.5	7.22	7.98	10	4	11.2	13.4	2E4
P1CH7.0A-AU	7	7.78	8.6	10	4	12	12.5	2E5
P1CH7.5A-AU	7.5	8.33	9.21	1	3	12.9	11.6	2E6
P1CH8.0A-AU	8	8.89	9.83	1	2	13.6	11	2E7
P1CH8.5A-AU	8.5	9.44	10.4	1	2	14.4	10.4	2E8
P1CH9.0A-AU	9	10	11.1	1	1	15.4	9.7	2E9
P1CH10A-AU	10	11.1	12.3	1	1	17	8.8	2EA
P1CH11A-AU	11	12.2	13.5	1	1	18.2	8.2	2EC
P1CH12A-AU	12	13.3	14.7	1	1	19.9	7.5	2ED
P1CH13A-AU	13	14.4	15.9	1	0.5	21.5	7	2EE
P1CH14A-AU	14	15.6	17.2	1	0.5	23.2	6.5	2EF
P1CH15A-AU	15	16.7	18.5	1	0.5	24.4	6.1	2EH
P1CH16A-AU	16	17.8	19.7	1	0.5	26	5.8	2EJ
P1CH17A-AU	17	18.9	20.9	1	0.5	27.6	5.3	2EK
P1CH18A-AU	18	20	22.1	1	0.5	29.2	5.1	2EL
P1CH20A-AU	20	22	24.5	1	0.5	32.4	4.6	2EM
P1CH22A-AU	22	24.4	26.9	1	0.5	35.5	4.2	2EN
P1CH24A-AU	24	26.7	29.5	1	0.5	38.9	3.9	2EP
P1CH26A-AU	26	28.9	31.9	1	0.5	42.1	3.6	2ER
P1CH28A-AU	28	31.1	34.4	1	0.5	45.4	3.3	2ET
P1CH30A-AU	30	33.3	36.8	1	0.5	48.4	3.1	2EU
P1CH33A-AU	33	36.7	40.6	1	0.5	53.3	2.8	2EV
P1CH36A-AU	36	40	44.2	1	0.5	58.1	2.6	2EW

**NOTES:**

1. Non-repetitive current pulse, per Fig.3 and derated above  $T_A = 25^\circ\text{C}$  per Fig.2
2. Mounted on a FR-4 PCB, single-sided copper, with  $100\text{cm}^2$  copper pad area
3. Mounted on a FR4 PCB, single-sided copper, mini pad
4. TVS is a transient protection device, it is strongly recommended not to use as a Zener.



# P1CH3.3A-AU ~ P1CH36A-AU Series

## TYPICAL CHARACTERISTIC CURVES



Fig.1 Pulse Power Rating Curve

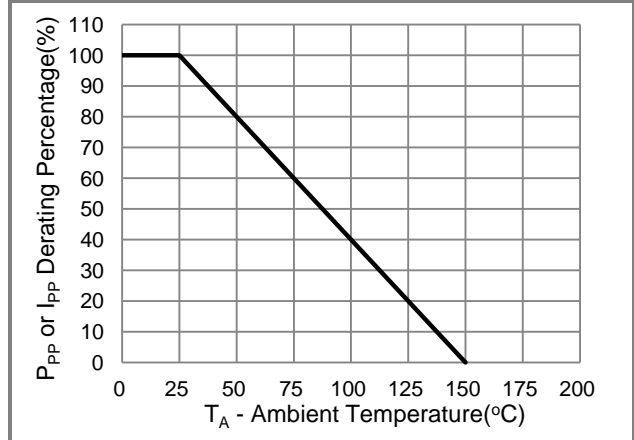


Fig.2 Derating Curve



Fig.3 Pulse Waveform

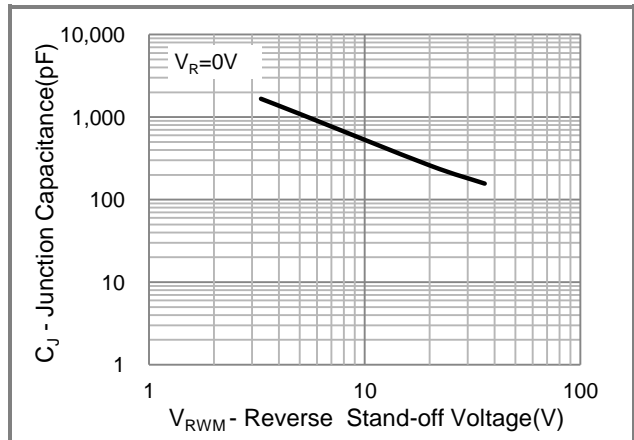


Fig.4 Typical Capacitance

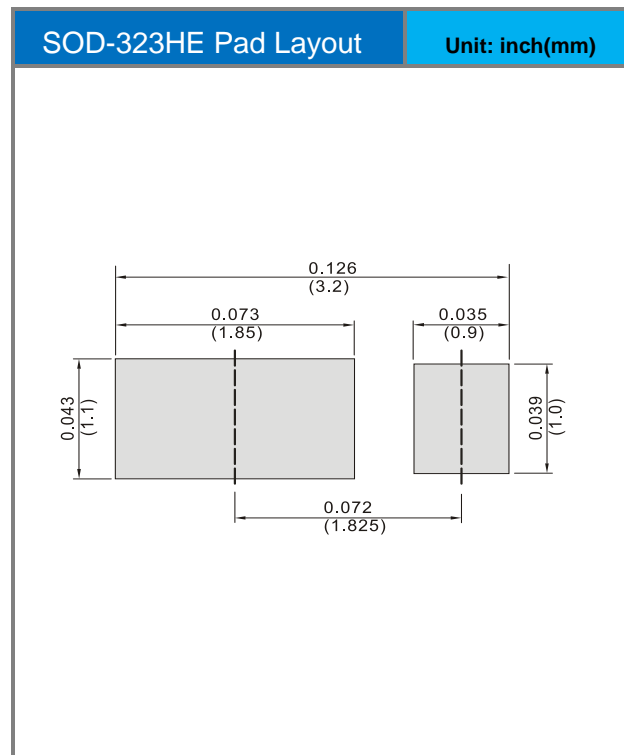
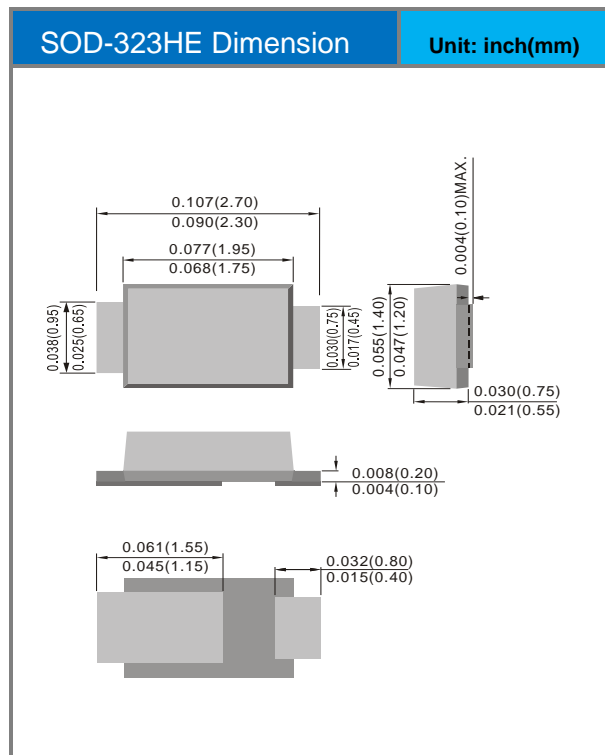


# P1CH3.3A-AU ~ P1CH36A-AU Series

## Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
P1CHxxxA-AU_R1_000A1	SOD-323HE	5K pcs / 7" reel	See Table	Halogen free

## Packaging Information & Mounting Pad Layout





## **P1CH3.3A-AU ~ P1CH36A-AU Series**

### **Disclaimer**

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [ESD Suppressors / TVS Diodes](#) category:*

*Click to view products by [Panjit](#) manufacturer:*

Other Similar products are found below :

[60KS200C](#) [D12V0H1U2WS-7](#) [D18V0L1B2LP-7B](#) [82356050220](#) [D5V0F4U5P5-7](#) [D5V0M5U6V-7](#) [NTE4902](#) [P4KE27CA](#) [P6KE11CA](#)  
[P6KE39CA-TP](#) [P6KE8.2A](#) [SA110CA](#) [SA60CA](#) [SA64CA](#) [SMBJ12CATR](#) [SMBJ33CATR](#) [SMBJ8.0A](#) [SMLJ30CA-TP](#) [ESD112-B1-02EL](#)  
[E6327](#) [ESD119B1W01005E6327XTSA1](#) [ESD5V0J4-TP](#) [ESD5V0L1B02VH6327XTSA1](#) [ESD7451N2T5G](#) [19180-510](#) [CPDT-5V0USP-HF](#)  
[3.0SMCJ33CA-F](#) [3.0SMCJ36A-F](#) [HSPC16701B02TP](#) [D3V3Q1B2DLP3-7](#) [D55V0M1B2WS-7](#) [DESD5V0U1BL-7B](#) [DRTR5V0U4SL-7](#)  
[SCM1293A-04SO](#) [ESD203-B1-02EL](#) [E6327](#) [SM12-7](#) [SMF8.0A-TP](#) [SMLJ45CA-TP](#) [CEN955 W/DATA](#) [82350120560](#) [82356240030](#)  
[VESD12A1A-HD1-GS08](#) [CPDUR5V0R-HF](#) [CPDUR24V-HF](#) [CPDQC5V0U-HF](#) [CPDQC5V0USP-HF](#) [CPDQC5V0-HF](#) [D1213A-01LP4-7B](#)  
[D1213A-02WL-7](#) [ESDLIN1524BJ-HQ](#) [5KP100A](#)