



**THE DATASHEET OF  
P4SMAJ28A\_R1\_00001**





# P4SMA6.8A-AU ~ P4SMA82CA-AU Series

## SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

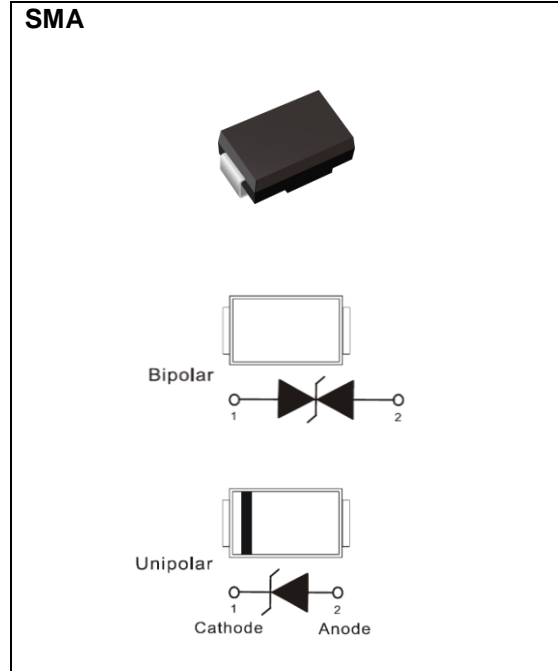
**Voltage** 6.8~82 V **Power** 400 W

### Features

- ISO10605(C=330 pF,R=330Ω): ± 30kV Air, ± 30kV Contact
- HBM ≥ ± 8 kV & CDM ≥ ± 2 kV
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### Mechanical Data

- Case: Molded plastic, SMA
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0024 ounces, 0.068 grams



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

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power Dissipation(tp=10/1000us)	P <sub>PP</sub> <sup>(1)(2)</sup>	400	W
Peak Forward Surge Current(8.3ms single half sine-wave)	I <sub>FSM</sub>	40	A
Peak Pulse Current on tp=10/1000us waveform <sup>(Fig.2)</sup>	I <sub>PPM</sub> <sup>(1)</sup>	See table 1	A
ISO10605(C=330pF, R=330Ω) (Air)	V <sub>ESD</sub>	±30	kV
ISO10605(C=330pF, R=330Ω) (Contact)		±30	
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub> <sup>(3)</sup>	70	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55~150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C



## P4SMA6.8A-AU ~ P4SMA82CA-AU Series

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

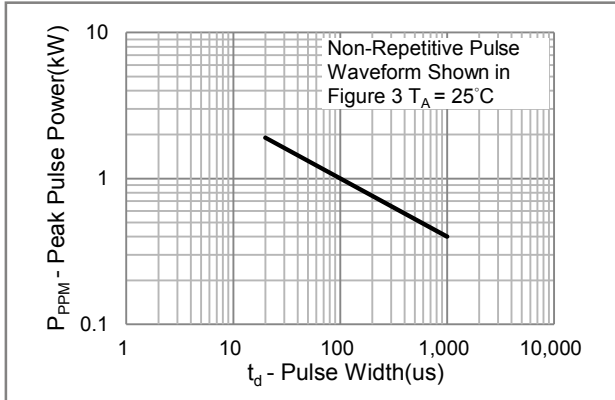
Part Number		$V_{RWM}$	$V_{BR}$			$I_R$		$V_C@I_{PP}$		Marking Code	
			Min.	Max.	$I_T$	@ $V_{RWM}$					
UNI	BI	V	V	V	mA	UNI	BI	V	A	UNI	BI
400W Transient Voltage Suppressor											
P4SMA6.8A-AU	P4SMA6.8CA-AU	5.8	6.45	7.14	10	1000	2000	10.5	40	MZB	NZB
P4SMA7.5A-AU	P4SMA7.5CA-AU	6.4	7.13	7.88	10	500	1000	11.3	37	MZD	NZD
P4SMA8.2A-AU	P4SMA8.2CA-AU	7.02	7.79	8.61	10	200	400	12.1	35	MZF	NZF
P4SMA9.1A-AU	P4SMA9.1CA-AU	7.78	8.65	9.5	1	50	100	13.4	31	MZH	NZH
P4SMA10A-AU	P4SMA10CA-AU	8.55	9.5	10.5	1	10	20	14.5	29	MZK	NZK
P4SMA11A-AU	P4SMA11CA-AU	9.4	10.5	11.6	1	5	10	15.6	27	MZM	NZM
P4SMA12A-AU	P4SMA12CA-AU	10.2	11.4	12.6	1	1	1	16.7	25	MZP	NZP
P4SMA13A-AU	P4SMA13CA-AU	11.1	12.4	13.7	1	1	1	18.2	23	MZR	NZR
P4SMA15A-AU	P4SMA15CA-AU	12.8	14.3	15.8	1	1	1	21.2	20	MZT	NZT
P4SMA16A-AU	P4SMA16CA-AU	13.6	15.2	16.8	1	1	1	22.5	19	MZV	NZV
P4SMA18A-AU	P4SMA18CA-AU	15.3	17.1	18.9	1	1	1	25.2	17	MZX	NZX
P4SMA20A-AU	P4SMA20CA-AU	17.1	19	21	1	1	1	27.7	15	MZZ	NZZ
P4SMA22A-AU	P4SMA22CA-AU	18.8	20.9	23.1	1	1	1	30.6	14	MXB	NXB
P4SMA24A-AU	P4SMA24CA-AU	20.5	22.8	25.2	1	1	1	33.2	13	MXD	NXD
P4SMA27A-AU	P4SMA27CA-AU	23.1	25.7	28.4	1	1	1	37.5	11.2	MXF	NXF
P4SMA30A-AU	P4SMA30CA-AU	25.6	28.5	31.5	1	1	1	41.4	10	MXH	NXH
P4SMA33A-AU	P4SMA33CA-AU	28.2	31.4	34.7	1	1	1	45.7	9	MXK	NXK
P4SMA36A-AU	P4SMA36CA-AU	30.8	34.2	37.8	1	1	1	49.9	8.4	MXM	NXM
P4SMA39A-AU	P4SMA39CA-AU	33.3	37.1	41	1	1	1	53.9	7.8	MXP	NXP
P4SMA43A-AU	P4SMA43CA-AU	36.8	40.9	45.2	1	1	1	59.3	7.1	MXR	NXR
P4SMA47A-AU	P4SMA47CA-AU	40.2	44.7	49.4	1	1	1	64.8	5	MXT	NXT
P4SMA51A-AU	P4SMA51CA-AU	43.6	48.5	53.6	1	1	1	70.1	6	MXV	NXV
P4SMA56A-AU	P4SMA56CA-AU	47.8	53.2	58.8	1	1	1	77	5.5	MXX	NXX
P4SMA62A-AU	P4SMA62CA-AU	53	58.9	65.1	1	1	1	85	5	MXZ	NXZ
P4SMA68A-AU	P4SMA68CA-AU	58.1	64.6	71.4	1	1	1	92	4.6	MYB	NYB
P4SMA75A-AU	P4SMA75CA-AU	64.1	71.3	78.8	1	1	1	103	4.1	MYD	NYD
P4SMA82A-AU	P4SMA82CA-AU	70.1	77.9	86.1	1	1	1	113	3.7	MYF	NYF

**Note:**

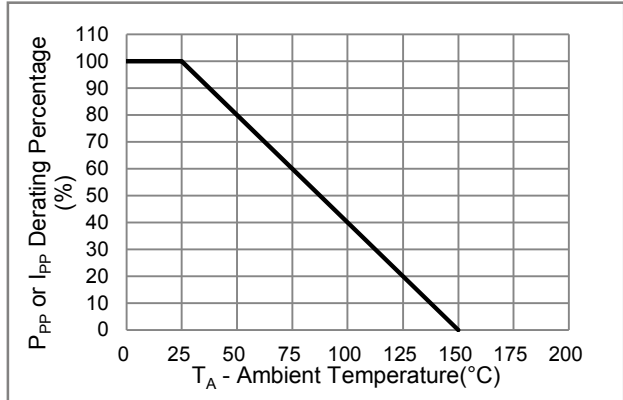
1. Non-repetitive current pulse, per Fig.3 and derated above  $T_A=25^{\circ}\text{C}$  per Fig.2
2. Mounted on 5mm x 5mm copper pads to each terminal
3. Mounted on a FR4 PCB, single-sided copper, mini pad



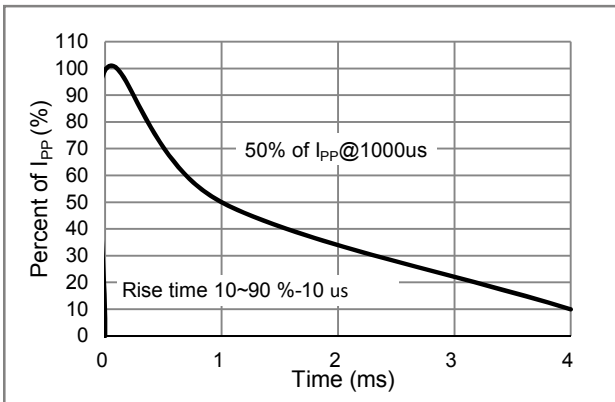
# P4SMA6.8A-AU ~ P4SMA82CA-AU Series



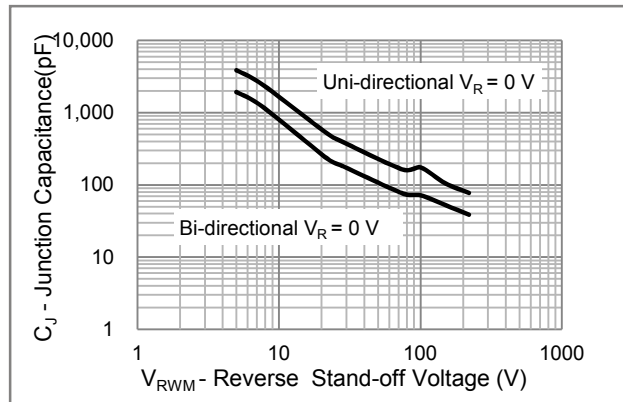
**Fig.1 Pulse Power Rating Curve**



**Fig.2 Derating Curve**



**Fig.3 10/1000us Pulse Waveform**



**Fig.4 Typical Capacitance**

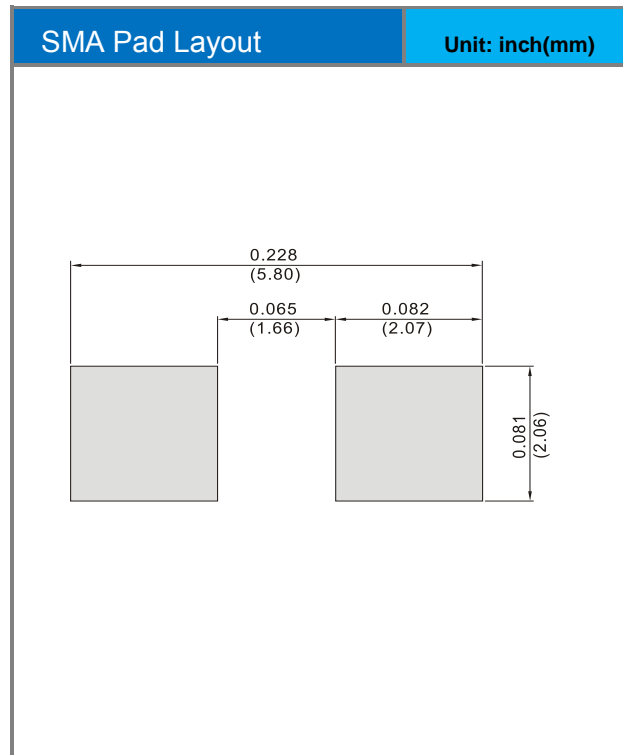
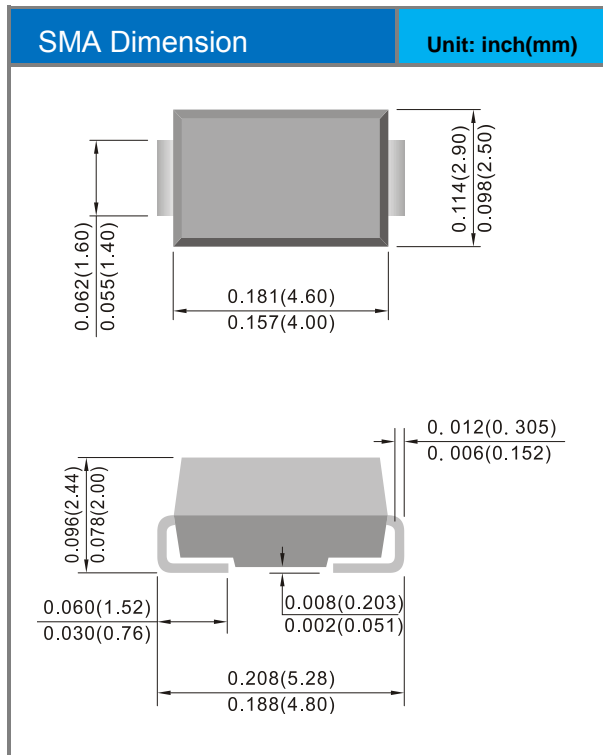


# P4SMA6.8A-AU ~ P4SMA82CA-AU Series

Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
P4SMAxxxx-AU_R1_000A1	SMA	1.8K pcs / 7" reel	See Table	Halogen free

## Packaging Information & Mounting Pad Layout





## **P4SMA6.8A-AU ~ P4SMA82CA-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.

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View P4SMAJ28A\\_R1\\_00001 on WIN SOURCE](#)

 [Panjit Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management