

P4SMA10AS ~ P4SMA250CAS Series

Surface Mount Transient Voltage Suppressor

Voltage	10~250 V	Power	400 W
----------------	-----------------	--------------	--------------

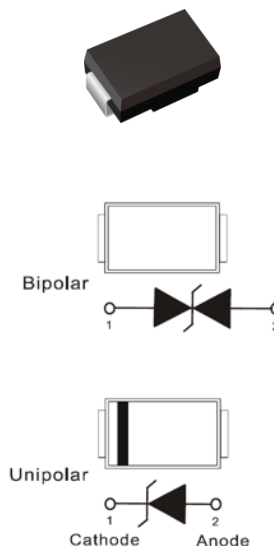
Features

- For surface mounted applications in order to optimize board space.
- Package suitable for automated handling
- Low inductance
- 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

Mechanical Data

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

SMA



Maximum Ratings and Thermal Characteristics (T_A = 25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power Dissipation(tp = 10 / 1000 us)	P _{PP} ^{(1) (2)}	400	W
Peak Pulse Current on tp = 10 / 1000 us waveform ^(Fig.2)	I _{PPM} ⁽¹⁾	See table 1	A
Power Dissipation on Infinite Heat Sink at T _L = 50 °C	P _D	3.3	W
ESD IEC61000-4-2(Air)	V _{ESD}	±30	kV
ESD IEC61000-4-2(Contact)		±30	
Typical Thermal Resistance Junction to Ambient	R _{θJA} ⁽³⁾	150	°C/W
Operating Junction Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C



P4SMA10AS ~ P4SMA250CAS 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} uA					
UNI	BI	V	V	V	mA	UNI	BI	V	A	UNI	BI
400W Transient Voltage Suppressor											
P4SMA10AS	P4SMA10CAS	8.55	9.5	10.5	1	10	20	14.5	29	TZU	VZF
P4SMA11AS	P4SMA11CAS	9.4	10.5	11.6	1	5	10	15.6	27	TZV	VZG
P4SMA12AS	P4SMA12CAS	10.2	11.4	12.6	1	1	1	16.7	25	TZW	VZH
P4SMA13AS	P4SMA13CAS	11.1	12.4	13.7	1	1	1	18.2	23	TZX	VZJ
P4SMA15AS	P4SMA15CAS	12.8	14.3	15.8	1	1	1	21.2	20	TZY	VZK
P4SMA16AS	P4SMA16CAS	13.6	15.2	16.8	1	1	1	22.5	19	TZZ	VZL
P4SMA18AS	P4SMA18CAS	15.3	17.1	18.9	1	1	1	25.2	17	UZA	VZM
P4SMA20AS	P4SMA20CAS	17.1	19	21	1	1	1	27.7	15	UZB	VZN
P4SMA22AS	P4SMA22CAS	18.8	20.9	23.1	1	1	1	30.6	14	UZC	VZP
P4SMA24AS	P4SMA24CAS	20.5	22.8	25.2	1	1	1	33.2	13	UZD	VZQ
P4SMA27AS	P4SMA27CAS	23.1	25.7	28.4	1	1	1	37.5	11.2	UZE	VZR
P4SMA30AS	P4SMA30CAS	25.6	28.5	31.5	1	1	1	41.4	10	UZF	VZS
P4SMA33AS	P4SMA33CAS	28.2	31.4	34.7	1	1	1	45.7	9	UZG	VZT
P4SMA36AS	P4SMA36CAS	30.8	34.2	37.8	1	1	1	49.9	8.4	UZH	VZU
P4SMA39AS	P4SMA39CAS	33.3	37.1	41	1	1	1	53.9	7.8	UZJ	VZV
P4SMA43AS	P4SMA43CAS	36.8	40.9	45.2	1	1	1	59.3	7.1	UZK	VZW
P4SMA47AS	P4SMA47CAS	40.2	44.7	49.4	1	1	1	64.8	5	UZL	VZX
P4SMA51AS	P4SMA51CAS	43.6	48.5	53.6	1	1	1	70.1	6	UZM	VZY
P4SMA56AS	P4SMA56CAS	47.8	53.2	58.8	1	1	1	77	5.5	UZN	VZZ
P4SMA62AS	P4SMA62CAS	53	58.9	65.1	1	1	1	85	5	UZP	WZA
P4SMA68AS	P4SMA68CAS	58.1	64.6	71.4	1	1	1	92	4.6	UZQ	WZB
P4SMA75AS	P4SMA75CAS	64.1	71.3	78.8	1	1	1	103	4.1	UZR	WZC
P4SMA82AS	P4SMA82CAS	70.1	77.9	86.1	1	1	1	113	3.7	UZS	WZD
P4SMA91AS	P4SMA91CAS	77.8	86.5	95.5	1	1	1	125	3.4	UZT	WZE
P4SMA100AS	P4SMA100CAS	85.5	95	105	1	1	1	137	3.1	UZU	WZF
P4SMA110AS	P4SMA110CAS	94	105	116	1	1	1	152	2.8	UZV	WZG
P4SMA120AS	P4SMA120CAS	102	114	126	1	1	1	165	2.5	UZW	WZH
P4SMA130AS	P4SMA130CAS	111	124	137	1	1	1	179	2.3	UZX	WZJ
P4SMA150AS	P4SMA150CAS	128	143	158	1	1	1	207	2	UZY	WZK
P4SMA160AS	P4SMA160CAS	136	152	168	1	1	1	219	1.9	UZZ	WZL



P4SMA10AS ~ P4SMA250CAS 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	uA					
UNI	BI	V	V	V	mA	UNI	BI	V	A	UNI	BI
400W Transient Voltage Suppressor											
P4SMA170AS	P4SMA170CAS	145	162	179	1	1	1	234	1.8	VZA	WZM
P4SMA180AS	P4SMA180CAS	154	171	189	1	1	1	246	1.7	VZB	WZN
P4SMA200AS	P4SMA200CAS	171	190	210	1	1	1	274	1.5	VZC	WZP
P4SMA220AS	P4SMA220CAS	185	209	231	1	1	1	328	1.2	VZD	WZQ
P4SMA250AS	P4SMA250CAS	214	237	263	1	1	1	344	1.2	VZE	WZR

Notes :

1. Non-repetitive current pulse, per Fig.3 and derated above $T_A=25^\circ\text{C}$ per Fig.2.
2. Mounted on 100cm² copper pads to each terminal.
3. Mounted on a FR4 PCB, single-sided copper, standard footprint.

P4SMA10AS ~ P4SMA250CAS Series

TYPICAL CHARACTERISTIC CURVES

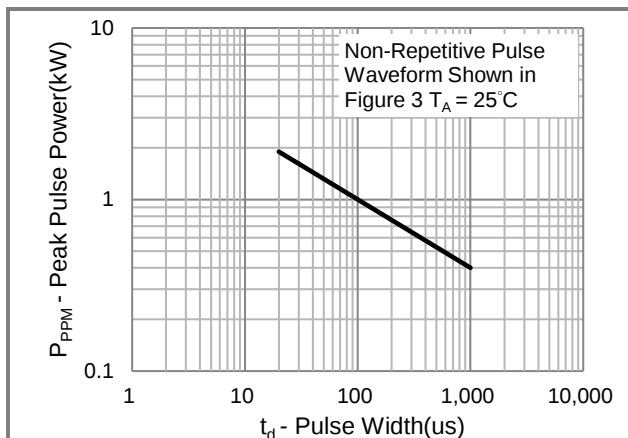


Fig.1 Pulse Power Rating Curve

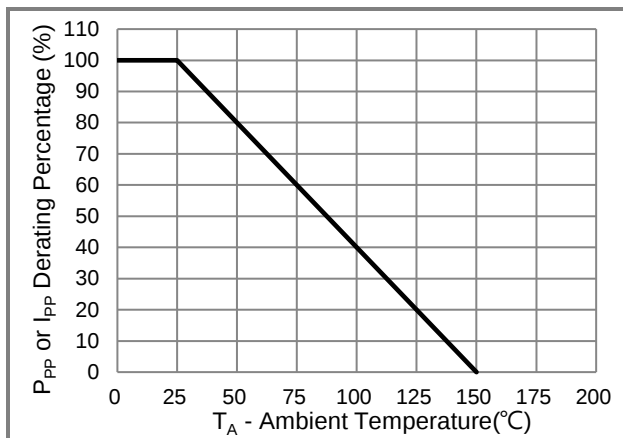


Fig.2 Derating Curve

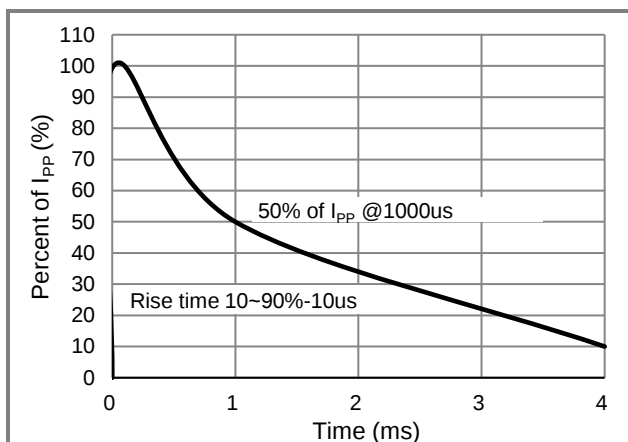


Fig.3 10/1000us Pulse Waveform

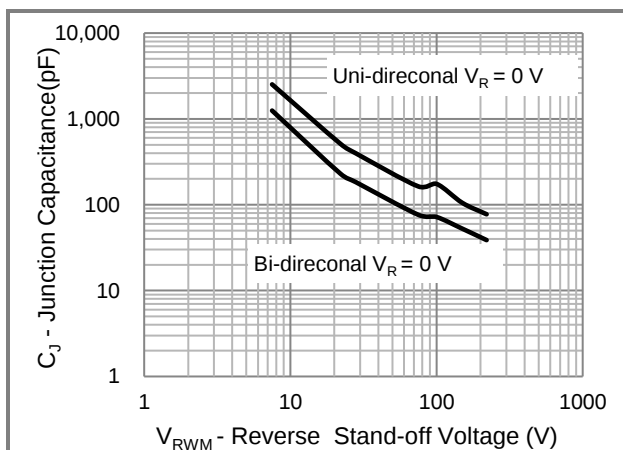


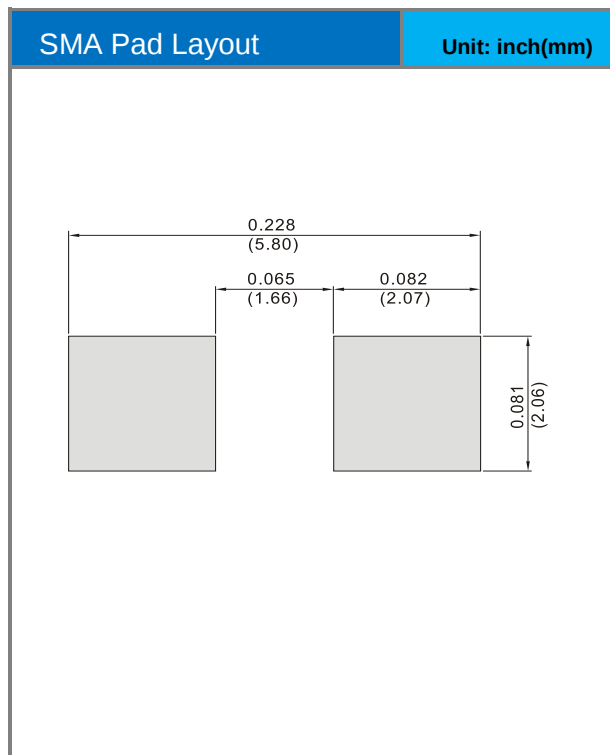
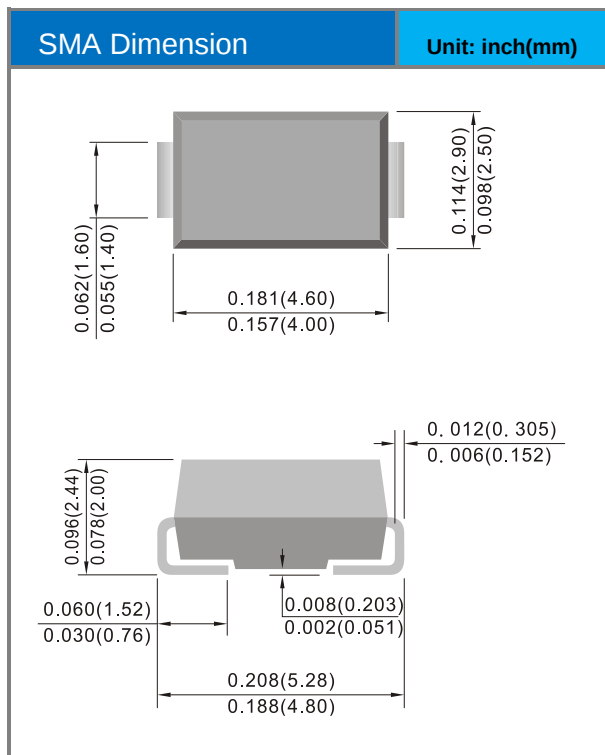
Fig.4 Typical Capacitance

P4SMA10AS ~ P4SMA250CAS Series

Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
P4SMAxxxxAS_R1_00001	SMA	1.8K pcs / 7" reel	See Table	Halogen free RoHS compliant

Packaging Information & Mounting Pad Layout





P4SMA10AS ~ P4SMA250CAS 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 requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, 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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Panjit:

[P4SMA220CAS_R1_00001](#)