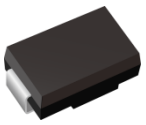
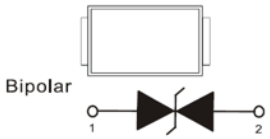
P4SMA10AS ~ P4SMA250CAS Series

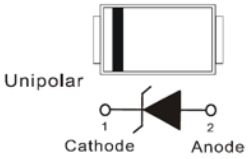
Surface Mount Transient Voltage Suppressor

Voltage	10~250 V	Power	400 W

SMA







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

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) ESD IEC61000-4-2(Contact)	V_{ESD}	±30 ±30	kV
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$ (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 °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											
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 °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°C per Fig.2.
2. Mounted on 100cm^2 copper pads to each terminal.
3. Mounted on a FR4 PCB, single-sided copper, standard footprint.

P4SMA10AS ~ P4SMA250CAS Series

TYPICAL CHARACTERISTIC CURVES

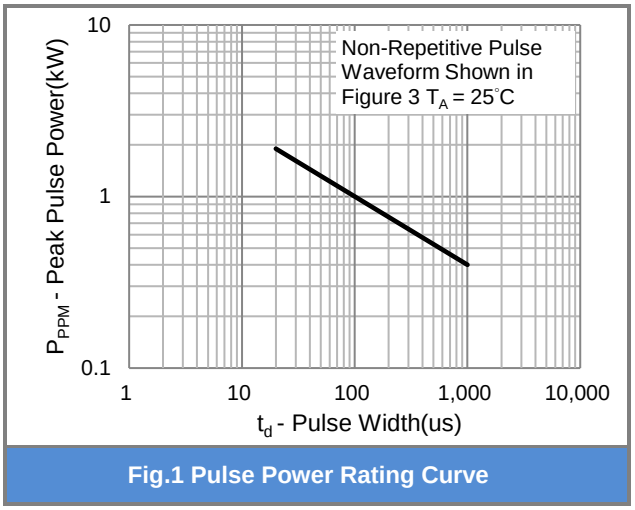


Fig.1 Pulse Power Rating Curve

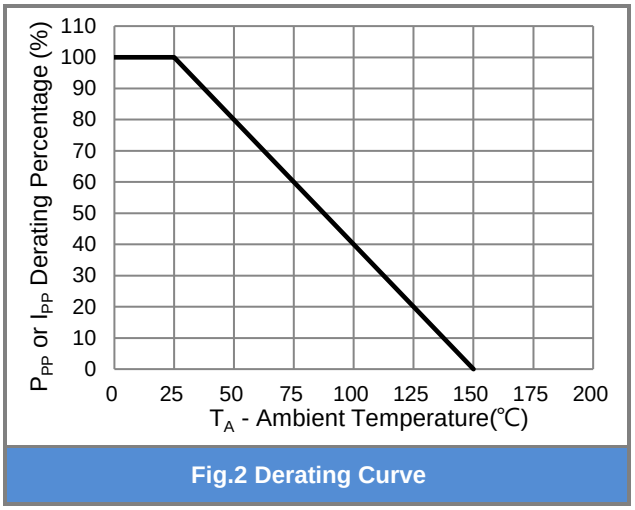


Fig.2 Derating Curve

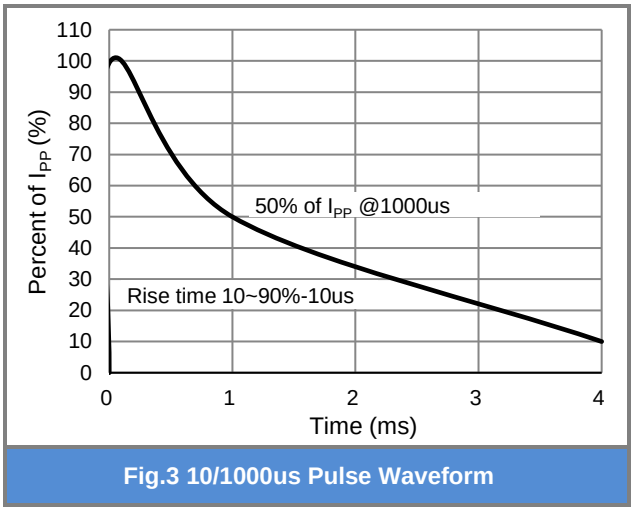


Fig.3 10/1000us Pulse Waveform

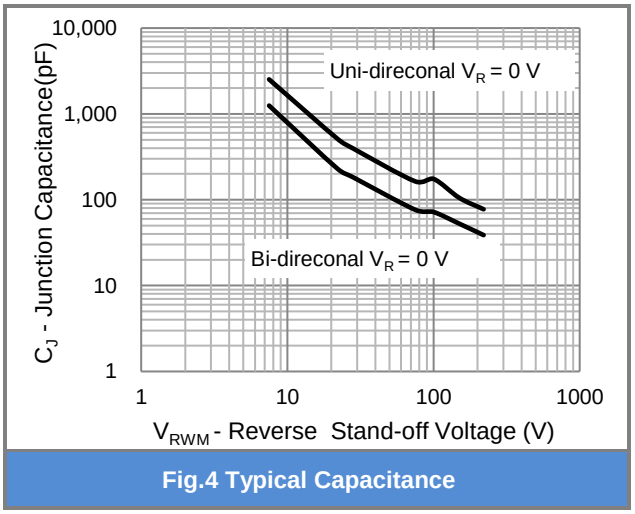


Fig.4 Typical Capacitance

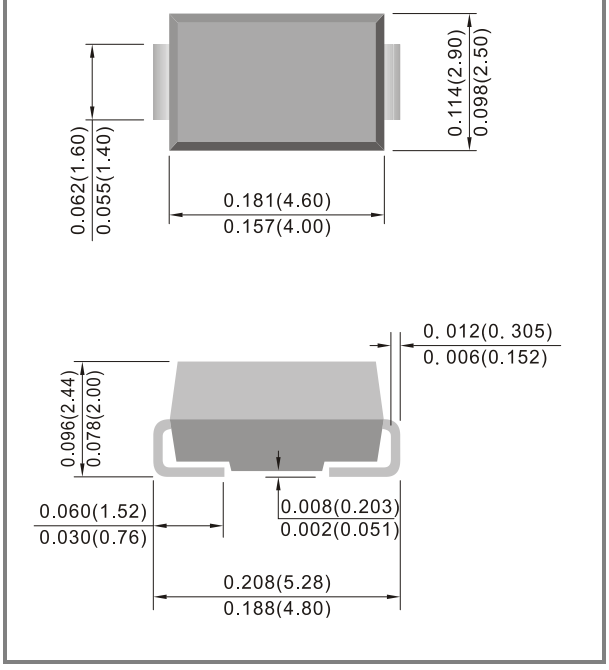
P4SMA10AS ~ P4SMA250CAS Series

Part No. Packing Code Version

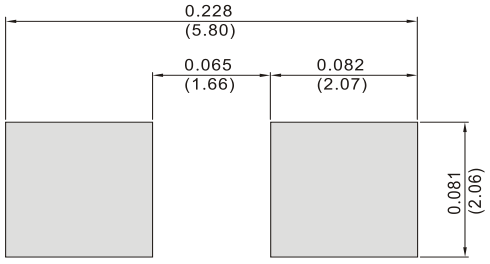
Part No. Packing Code	Package Type	Packing Type	Marking	Version
P4SMAxxxxAS_R1_00001	SMA	1.8K pcs / 7" reel	See Table	Halogen free RoHS compliant

Packaging Information & Mounting Pad Layout

SMA Dimension — Unit: inch(mm)



SMA Pad Layout — Unit: inch(mm)



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