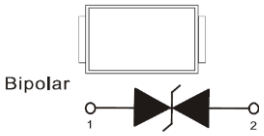
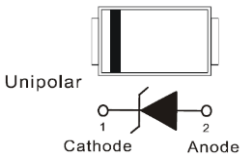
P4SMA6.8A-AU ~ P4SMA250CA-AU Series

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

Voltage 6.8~250 V **Power** 400 W

SMA





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 : 0.0679 grams

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

PARAMETER	SYMBOL	LIMIT	UNIT
Peak Pulse Power Dissipation(tp=10/1000us)	P_{PP} (1) (2)	400	W
Peak Forward Surge Currert(8.3ms single half sine-wave)	I_{FSM}	40	A
Peak Pulse Current on tp=10/1000us waveform(Fig.2)	I_{PPM} (1)	See table 1	A
ISO10605(C=330pF, R=330Ω) (Air) ISO10605(C=330pF, R=330Ω) (Contact)	V_{ESD}	±30 ±30	kV
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$ (3)	70	°C/W
Operating Junction Temperature Range	T_J	-55~150	°C
Storage Temperature Range	T_{STG}	-55~150	°C

P4SMA6.8A-AU ~ P4SMA250CA-AU 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											
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°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 ~ P4SMA250CA-AU 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											
P4SMA91A-AU	P4SMA91CA-AU	77.8	86.5	95.5	1	1	1	125	3.4	MYH	NYH
P4SMA100A-AU	P4SMA100CA-AU	85.5	95	105	1	1	1	137	3.1	MYK	NYK
P4SMA110A-AU	P4SMA110CA-AU	94	105	116	1	1	1	152	2.8	MYM	NYM
P4SMA120A-AU	P4SMA120CA-AU	102	114	126	1	1	1	165	2.5	MYP	NYP
P4SMA130A-AU	P4SMA130CA-AU	111	124	137	1	1	1	179	2.3	MYR	NYR
P4SMA150A-AU	P4SMA150CA-AU	128	143	158	1	1	1	207	2	MYT	NYT
P4SMA160A-AU	P4SMA160CA-AU	136	152	168	1	1	1	219	1.9	MYV	NYV
P4SMA170A-AU	P4SMA170CA-AU	145	162	179	1	1	1	234	1.8	MYX	NYX
P4SMA180A-AU	P4SMA180CA-AU	154	171	189	1	1	1	246	1.7	NYX	NYZ
P4SMA200A-AU	P4SMA200CA-AU	171	190	210	1	1	1	274	1.5	MWB	NWB
P4SMA220A-AU	P4SMA220CA-AU	185	209	231	1	1	1	328	1.2	MWD	NWD
P4SMA250A-AU	P4SMA250CA-AU	214	237	263	1	1	1	344	1.2	MWF	NWF

Note:

1. Non-repetitive current pulse, per Fig.3 and derated above T_A=25°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 ~ P4SMA250CA-AU Series

TYPICAL CHARACTERISTIC CURVES

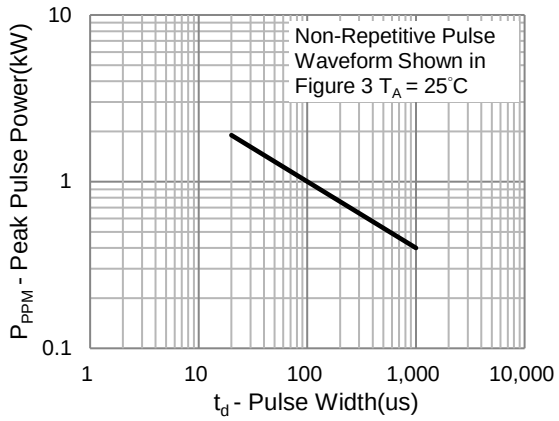


Fig.1 Pulse Power Rating Curve

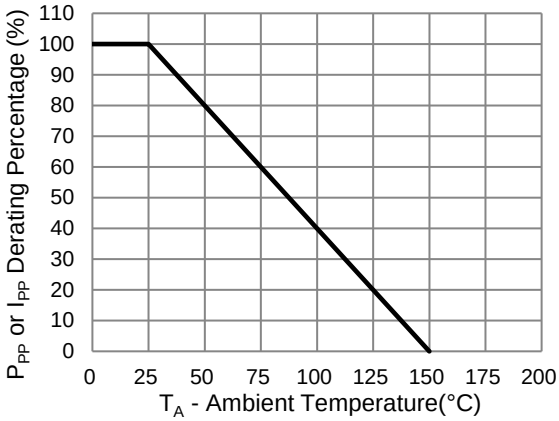


Fig.2 Derating Curve

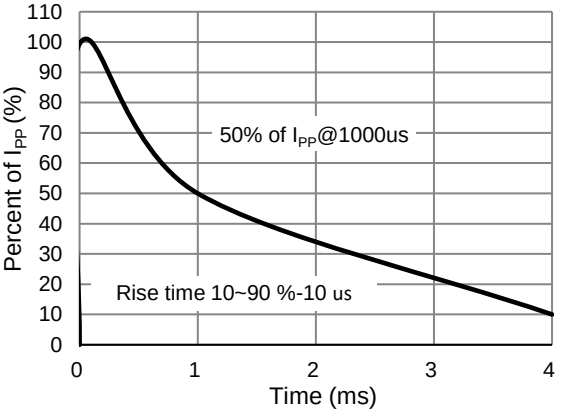


Fig.3 10/1000us Pulse Waveform

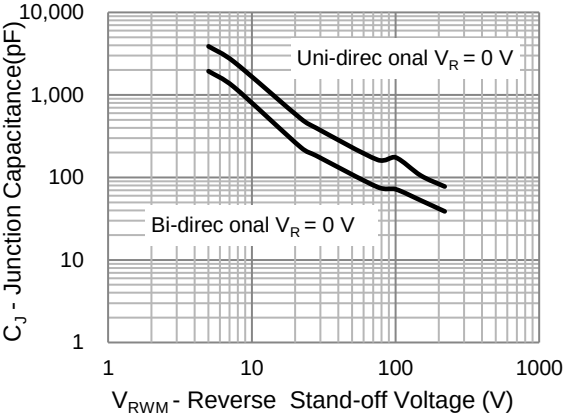


Fig.4 Typical Capacitance

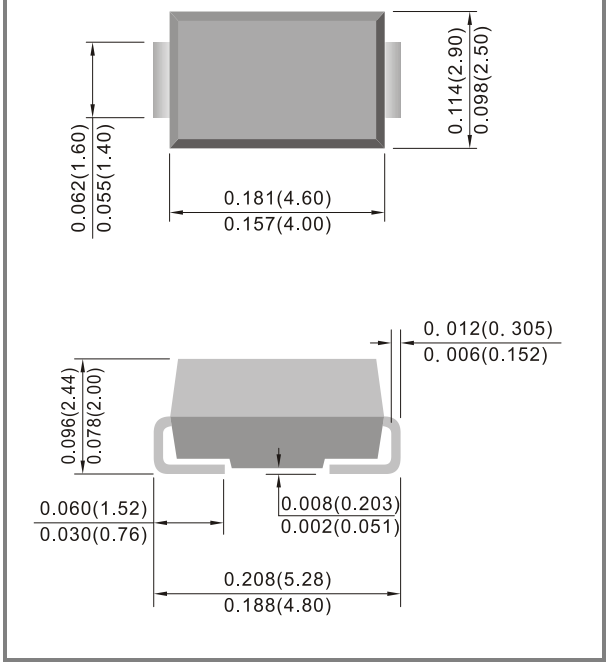
P4SMA6.8A-AU ~ P4SMA250CA-AU Series

Product and Packing Information

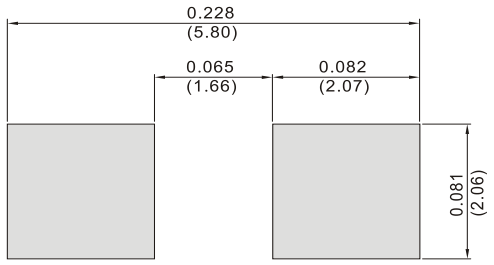
Part No.	Package Type	Packing Type	Marking
P4SMAxxxxA-AU	SMA	1.8K pcs / 7” reel	See Table

Packaging Information & Mounting Pad Layout

SMA Dimension — Unit: inch(mm)



SMA Pad Layout — Unit: inch(mm)



P4SMA6.8A-AU ~ P4SMA250CA-AU Series

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