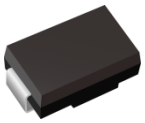
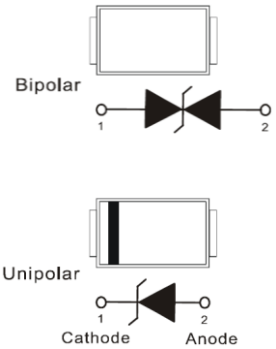
P4SMAJ5.0-AU ~ P4SMAJ70CA-AU Series

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

Voltage 5~70 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: 0.0024 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=10/1000us)	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

P4SMAJ5.0-AU ~ P4SMAJ70CA-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											
P4SMAJ5.0-AU	P4SMAJ5.0C-AU	5	6.4	7.55	10	800	1600	9.6	41.6	HD	TD
P4SMAJ5.0A-AU	P4SMAJ5.0CA-AU	5	6.4	7	10	800	1600	9.2	43.5	HE	TE
P4SMAJ6.0-AU	P4SMAJ6.0C-AU	6	6.67	8.45	10	800	1600	11.4	35.1	HF	TF
P4SMAJ6.0A-AU	P4SMAJ6.0CA-AU	6	6.67	7.37	10	800	1600	10.3	38.8	HG	TG
P4SMAJ6.5-AU	P4SMAJ6.5C-AU	6.5	7.22	9.14	10	500	1000	12.3	32.5	HH	TH
P4SMAJ6.5A-AU	P4SMAJ6.5CA-AU	6.5	7.22	7.98	10	500	1000	11.2	35.7	HK	TK
P4SMAJ7.0-AU	P4SMAJ7.0C-AU	7	7.78	9.86	10	200	400	13.3	30.1	HL	TL
P4SMAJ7.0A-AU	P4SMAJ7.0CA-AU	7	7.78	8.6	10	200	400	12	33.3	HM	TM
P4SMAJ7.5-AU	P4SMAJ7.5C-AU	7.5	8.33	10.67	1	100	200	14.3	28	HN	TN
P4SMAJ7.5A-AU	P4SMAJ7.5CA-AU	7.5	8.33	9.21	1	100	200	12.9	31	HP	TP
P4SMAJ8.0-AU	P4SMAJ8.0C-AU	8	8.89	11.3	1	50	100	15	26.5	HQ	TQ
P4SMAJ8.0A-AU	P4SMAJ8.0CA-AU	8	8.89	9.83	1	50	100	13.6	29.4	HR	TR
P4SMAJ8.5-AU	P4SMAJ8.5-AU	8.5	9.44	11.92	1	10	20	15.9	25.1	HS	TS
P4SMAJ8.5A-AU	P4SMAJ8.5CA-AU	8.50	9.44	10.4	1	10	20	14.4	27.7	HT	TT
P4SMAJ9.0-AU	P4SMAJ9.0C-AU	9	10	12.6	1	5	5	16.9	23.6	HU	TU
P4SMAJ9.0A-AU	P4SMAJ9.0CA-AU	9	10	11.1	1	5	5	15.4	26	HV	TV
P4SMAJ10-AU	P4SMAJ10C-AU	10	11.1	14.1	1	5	5	18.8	21.2	HW	TW
P4SMAJ10A-AU	P4SMAJ10CA-AU	10	11.1	12.3	1	5	5	17	23.5	HX	TX
P4SMAJ11-AU	P4SMAJ11C-AU	11	12.2	15.4	1	1	1	20.1	20	HY	TY
P4SMAJ11A-AU	P4SMAJ11CA-AU	11	12.2	13.5	1	1	1	18.2	22	HZ	TZ
P4SMAJ12-AU	P4SMAJ12C-AU	12	13.3	16.9	1	1	1	22	18.1	ID	UD
P4SMAJ12A-AU	P4SMAJ12CA-AU	12	13.3	14.7	1	1	1	19.9	20.1	IE	UE
P4SMAJ13-AU	P4SMAJ13C-AU	13	14.4	18.2	1	1	1	23.8	16.8	IF	UF
P4SMAJ13A-AU	P4SMAJ13CA-AU	13	14.4	15.9	1	1	1	21.5	18.6	IG	UG
P4SMAJ14-AU	P4SMAJ14C-AU	14	15.6	19.8	1	1	1	25.8	15.5	IH	UH
P4SMAJ14A-AU	P4SMAJ14CA-AU	14	15.6	17.2	1	1	1	23.2	17.2	IK	UK
P4SMAJ15-AU	P4SMAJ15C-AU	15	16.7	21.1	1	1	1	26.9	14.8	IL	UL
P4SMAJ15A-AU	P4SMAJ15CA-AU	15	16.7	18.5	1	1	1	24.4	16.4	IM	UM
P4SMAJ16-AU	P4SMAJ16C-AU	16	17.8	22.6	1	1	1	28.8	13.8	IN	UN
P4SMAJ16A-AU	P4SMAJ16CA-AU	16	17.8	19.7	1	1	1	26	15.3	IP	UP

P4SMAJ5.0-AU ~ P4SMAJ70CA-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											
P4SMAJ17-AU	P4SMAJ17C-AU	17	18.9	23.9	1	1	1	30.5	13.1	IQ	UQ
P4SMAJ17A-AU	P4SMAJ17CA-AU	17	18.9	20.9	1	1	1	27.6	14.5	IR	UR
P4SMAJ18-AU	P4SMAJ18C-AU	18	20	25.3	1	1	1	32.2	12.4	IS	US
P4SMAJ18A-AU	P4SMAJ18CA-AU	18	20	22.1	1	1	1	29.2	13.7	IT	UT
P4SMAJ20-AU	P4SMAJ20C-AU	20	22.2	28.1	1	1	1	35.8	11.1	IU	UU
P4SMAJ20A-AU	P4SMAJ20CA-AU	20	22.2	24.5	1	1	1	32.4	12.3	IV	UV
P4SMAJ22-AU	P4SMAJ22C-AU	22	24.4	30.9	1	1	1	39.4	10.1	IW	UW
P4SMAJ22A-AU	P4SMAJ22CA-AU	22	24.4	26.9	1	1	1	35.5	11.2	IX	UX
P4SMAJ24-AU	P4SMAJ24C-AU	24	26.7	33.8	1	1	1	43	9.3	IY	UY
P4SMAJ24A-AU	P4SMAJ24CA-AU	24	26.7	29.5	1	1	1	38.9	10.3	IZ	UZ
P4SMAJ26-AU	P4SMAJ26C-AU	26	28.9	36.6	1	1	1	46.6	8.6	JD	VD
P4SMAJ26A-AU	P4SMAJ26CA-AU	26	28.9	31.9	1	1	1	42.1	9.5	JE	VE
P4SMAJ28-AU	P4SMAJ28C-AU	28	31.1	39.4	1	1	1	50	8	JF	VF
P4SMAJ28A-AU	P4SMAJ28CA-AU	28	31.1	34.4	1	1	1	45.4	8.8	JG	VG
P4SMAJ30-AU	P4SMAJ30C-AU	30	33.3	42.2	1	1	1	53.5	7.5	JH	VH
P4SMAJ30A-AU	P4SMAJ30CA-AU	30	33.3	36.8	1	1	1	48.4	8.3	JK	VK
P4SMAJ33-AU	P4SMAJ33C-AU	33	36.7	46.5	1	1	1	59	6.8	JL	VL
P4SMAJ33A-AU	P4SMAJ33CA-AU	33	36.7	40.6	1	1	1	53.3	7.5	JM	VM
P4SMAJ36-AU	P4SMAJ36C-AU	36	40	50.7	1	1	1	64.3	6.2	JN	VN
P4SMAJ36A-AU	P4SMAJ36CA-AU	36	40	44.2	1	1	1	58.1	6.9	JP	VP
P4SMAJ40-AU	P4SMAJ40C-AU	40	44.4	56.3	1	1	1	71.4	5.6	JQ	VQ
P4SMAJ40A-AU	P4SMAJ40CA-AU	40	44.4	49.1	1	1	1	64.5	6.2	JR	VR
P4SMAJ43-AU	P4SMAJ43C-AU	43	47.8	60.5	1	5	5	76.7	5.2	JS	VS
P4SMAJ43A-AU	P4SMAJ43CA-AU	43	47.8	52.8	1	5	5	69.4	5.7	JT	VT
P4SMAJ45-AU	P4SMAJ45C-AU	45	50	63.3	1	5	5	80.3	5	JU	VU
P4SMAJ45A-AU	P4SMAJ45CA-AU	45	50	55.3	1	5	5	72.7	5.5	JV	VV
P4SMAJ48-AU	P4SMAJ48C-AU	48	53.3	67.5	1	5	5	85.5	4.7	JW	VW
P4SMAJ48A-AU	P4SMAJ48CA-AU	48	53.3	58.9	1	5	5	77.4	5.2	JX	VX
P4SMAJ51-AU	P4SMAJ51C-AU	51	56.7	71.8	1	5	5	91.1	4.4	JY	VY
P4SMAJ51A-AU	P4SMAJ51CA-AU	51	56.7	62.7	1	5	5	82.4	4.9	JZ	VZ

P4SMAJ5.0-AU ~ P4SMAJ70CA-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											
P4SMAJ54-AU	P4SMAJ54C-AU	54	60	76	1	5	5	96.3	4.2	RD	WD
P4SMAJ54A-AU	P4SMAJ54CA-AU	54	60	66.3	1	5	5	87.1	4.6	RE	WE
P4SMAJ58-AU	P4SMAJ58C-AU	58	64.4	81.6	1	5	5	103	3.9	RF	WF
P4SMAJ58A-AU	P4SMAJ58CA-AU	58	64.4	71.2	1	5	5	93.6	4.3	RG	WG
P4SMAJ60-AU	P4SMAJ60C-AU	60	66.7	84.5	1	5	5	107	3.7	RH	WH
P4SMAJ60A-AU	P4SMAJ60CA-AU	60	66.7	73.7	1	5	5	96.8	4.1	RK	WK
P4SMAJ64-AU	P4SMAJ64C-AU	64	71.1	90.1	1	5	5	114	3.5	RL	WL
P4SMAJ64A-AU	P4SMAJ64CA-AU	64	71.1	78.6	1	5	5	103	3.9	RM	WM
P4SMAJ70-AU	P4SMAJ70C-AU	70	77.8	98.6	1	5	5	125	3.2	RN	WN
P4SMAJ70A-AU	P4SMAJ70CA-AU	70	77.8	86	1	5	5	113	3.5	RP	WP

Note:

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

P4SMAJ5.0-AU ~ P4SMAJ70CA-AU Series

TYPICAL CHARACTERISTIC CURVES

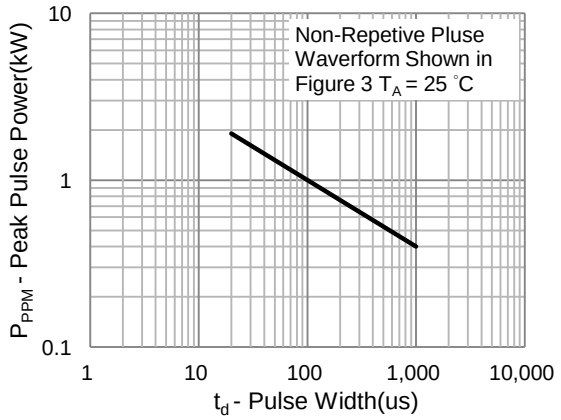


Fig.1 Pulse Power Rating Curve

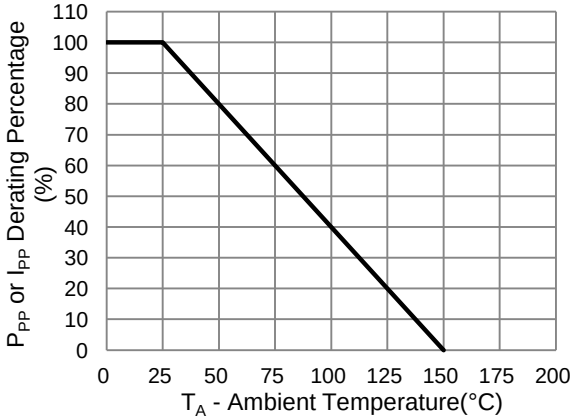


Fig.2 Derating Curve

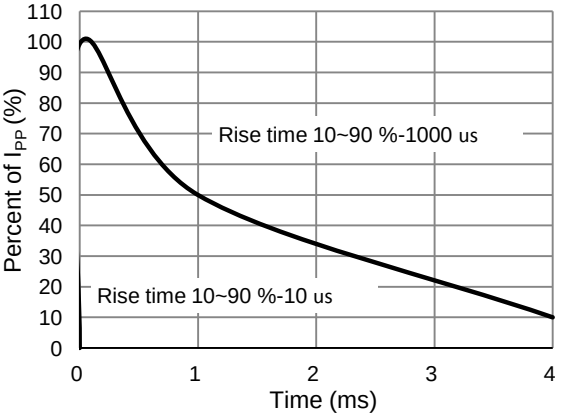


Fig.3 10/1000us Pulse Waveform

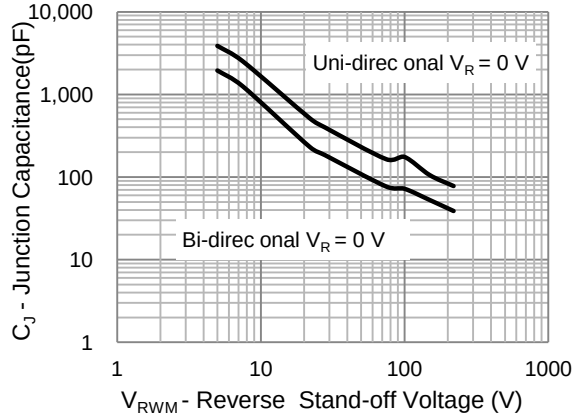


Fig.3 Typical Capacitance

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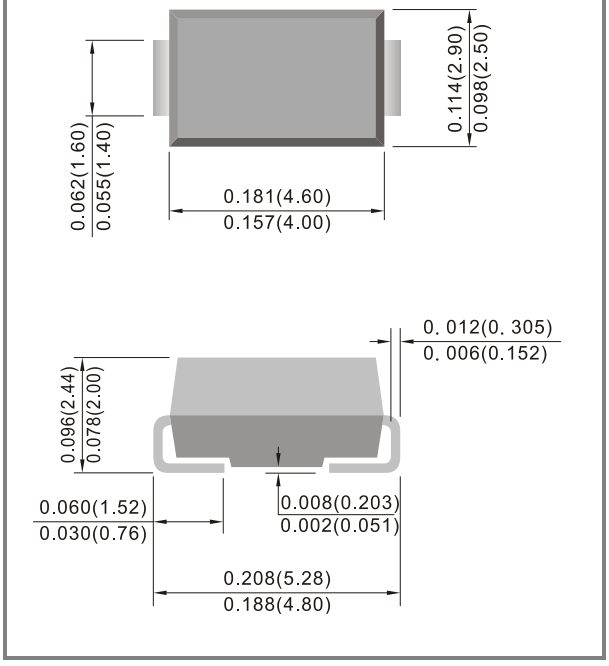
Part No Packing Code Version

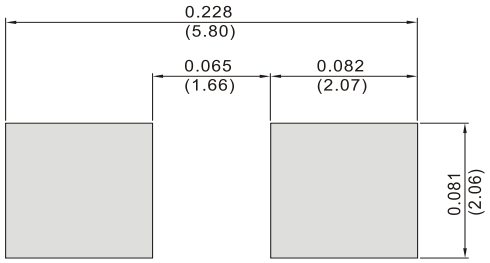
Part No Packing Code	Package Type	Packing Type	Marking	Version
P4SMAJxxxx-AU_R1_000A1	SMA	7.5K pcs / 13” reel	See Table	Halogen free

Packaging Information & Mounting Pad Layout

SMA Dimension — Unit: inch(mm)



SMA Pad Layout — Unit: inch(mm)



P4SMAJ5.0-AU ~ P4SMAJ70CA-AU Series

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