

P4SMAJ Series – 400 Watt Surface Mount



P4SMAJ Series Features

- RoHS Compliance designated by suffix “F”
- 400 watt peak pulse power dissipation
- Available in voltages from 5.0V to 170V
- Unidirectional and bidirectional
- Glass passivated junction
- Low clamping factor
- Available in tape and reel (Reel quantity = 5,000 pieces)
- Each device 100% surge tested
- Tape and Reel to EIA Standard RS-481-A
- UL 497B Recognized, File #E135015

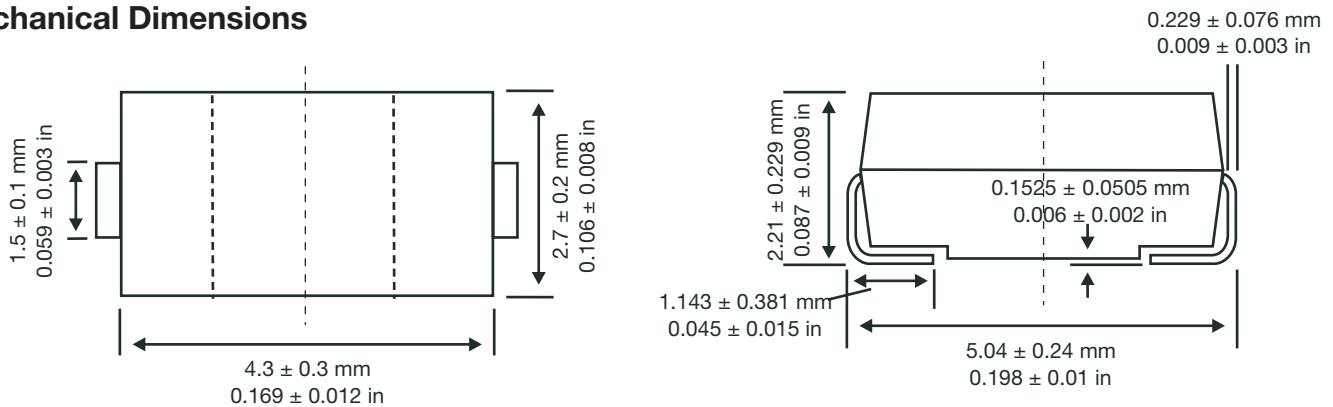
Absolute Maximum Ratings

Parameter	Value
Peak pulse power dissipation (PPPM) at 25°C	400W
Operating and storage temperatures	-55°C to + 150°C

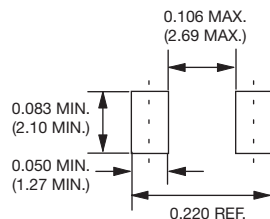
Mechanical Characteristics

- DO214AC package
- UL94V-0 Thermoset Epoxy
- Solder plated terminals
- Solderable per MIL-STD-750 Method 2026

Mechanical Dimensions



Standard Mounting Pad Layout



All dimensions in inches and (millimeters)

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Electrical Characteristics

Part Number*	Uni Part Marking	Bi Part Marking	Rated Standoff Voltage V _{wm}	Breakdown Voltage			Maximum Stand By Current @V _{WM} + I _d	10/1000 μ s Maximum Clamping Voltage @I _{ppm} # V _c Max	10/1000 μ s Rated Peak Impulse Current I _{ppm} #
				V _{br} (Volts)		@I _t			
				(Volts)	Min	Max			
P4SMAJ5.0	HD	TD	5	6.4	7.3	10	800	9.6	41.6
P4SMAJ5.0A	HE	TE	5	6.4	7	10	800	9.2	43.5
P4SMAJ6.0	HF	TF	6	6.67	8.15	10	800	11.4	35.1
P4SMAJ6.0A	HG	TG	6	6.67	7.37	10	800	10.3	38.8
P4SMAJ6.5	HH	TH	6.5	7.22	8.82	10	500	12.3	32.5
P4SMAJ6.5A	HK	TK	6.5	7.22	7.98	10	500	11.2	35.7
P4SMAJ7.0	HL	TL	7	7.78	9.51	10	200	13.3	30.1
P4SMAJ7.0A	HM	TM	7	7.78	8.6	10	200	12	33.3
P4SMAJ7.5	HN	TN	7.5	8.33	10.3	1	100	14.3	28
P4SMAJ7.5A	HP	TP	7.5	8.33	9.21	1	100	12.9	31
P4SMAJ8.0	HQ	TQ	8	8.89	10.9	1	50	15	26.5
P4SMAJ8.0A	HR	TR	8	8.89	9.83	1	50	13.6	29.4
P4SMAJ8.5	HS	TS	8.5	9.44	11.5	1	10	15.9	25.1
P4SMAJ8.5A	HT	TT	8.5	9.44	10.4	1	10	14.4	27.7
P4SMAJ9.0	HU	TU	9	10	12.2	1	5	16.9	23.6
P4SMAJ9.0A	HV	TV	9	10	11.1	1	5	15.4	26
P4SMAJ10	HW	TW	10	11.1	13.6	1	5	18.8	21.2
P4SMAJ10A	HX	TX	10	11.1	12.3	1	5	17	23.5
P4SMAJ11	HY	TY	11	12.2	14.9	1	5	20.1	20
P4SMAJ11A	HZ	TZ	11	12.2	13.5	1	5	18.2	22
P4SMAJ12	ID	UD	12	13.3	16.3	1	5	22	18.1
P4SMAJ12A	IE	UE	12	13.3	14.7	1	5	19.9	20.1
P4SMAJ13	IF	UF	13	14.4	17.6	1	5	23.8	16.8
P4SMAJ13A	IG	UG	13	14.4	15.9	1	5	21.5	18.6
P4SMAJ14	IH	UH	14	15.6	19.1	1	5	25.8	15.5
P4SMAJ14A	IK	UK	14	15.6	17.2	1	5	23.2	17.2

* = Add "C" or "CA" suffix for bidirectional device types.

+ = For Bidirectional Types Having V_{WM} <= 10V, their I_D limit is doubled.

= See General Information for Impulse Current Waveform.

For Pb-Free add suffix - "F"

P4SMAJ Series – 400 Watt Surface Mount**Electrical Characteristics (continued)**

Part Number*	Uni Part Marking	Bi Part Marking	Rated Standoff Voltage V _{wm}	Breakdown Voltage			Maximum Stand By Current @V _{WM} + I _d	10/1000 μ s Maximum Clamping Voltage @I _{ppm} # V _c Max	10/1000 μ s Rated Peak Impulse Current I _{ppm} #
				V _{br} (Volts)		@I _t			
				(Volts)	Min	Max			
P4SMAJ15	IL	UL	15	16.7	20.4	1	5	26.9	14.8
P4SMAJ15A	IM	UM	15	16.7	18.5	1	5	24.4	16.4
P4SMAJ16	IN	UN	16	17.8	21.8	1	5	28.8	13.8
P4SMAJ16A	IP	UP	16	17.8	19.7	1	5	26	15.3
P4SMAJ17	IQ	UQ	17	18.9	23.1	1	5	30.5	13.1
P4SMAJ17A	IR	UR	17	18.9	20.9	1	5	27.6	14.5
P4SMAJ18	IS	US	18	20	24.4	1	5	32.2	12.4
P4SMAJ18A	IT	UT	18	20	22.1	1	5	29.2	13.7
P4SMAJ20	IU	UU	20	22.2	27.1	1	5	35.8	11.1
P4SMAJ20A	IV	UV	20	22.2	24.5	1	5	32.4	12.3
P4SMAJ22	IW	UW	22	24.4	29.8	1	5	39.4	10.1
P4SMAJ22A	IX	UX	22	24.4	26.9	1	5	35.5	11.2
P4SMAJ24	IY	UY	24	26.7	32.6	1	5	43	9.3
P4SMAJ24A	IZ	UZ	24	26.7	29.5	1	5	38.9	10.3
P4SMAJ26	JD	VD	26	28.9	35.3	1	5	46.6	8.6
P4SMAJ26A	JE	VE	26	28.9	31.9	1	5	42.1	9.5
P4SMAJ28	JF	VF	28	31.1	38	1	5	50	8
P4SMAJ28A	JG	VG	28	31.1	34.4	1	5	45.4	8.8
P4SMAJ30	JH	VH	30	33.3	40.7	1	5	53.5	7.5
P4SMAJ30A	JK	VK	30	33.3	36.8	1	5	48.4	8.3
P4SMAJ33	JL	VL	33	36.7	44.9	1	5	59	6.8
P4SMAJ33A	JM	VM	33	36.7	40.6	1	5	53.3	7.5
P4SMAJ36	JN	VN	36	40	48.9	1	5	64.3	6.2
P4SMAJ36A	JP	VP	36	40	44.2	1	5	58.1	6.9
P4SMAJ40	JQ	VQ	40	44.4	54.3	1	5	71.4	5.6
P4SMAJ40A	JR	VR	40	44.4	49.1	1	5	64.5	6.2

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P4SMAJ Series – 400 Watt Surface Mount**Electrical Characteristics (continued)**

Part Number*	Uni Part Marking	Bi Part Marking	Rated Standoff Voltage V _{wm}	Breakdown Voltage			Maximum Stand By Current @V _{WM} + I _d	10/1000 μ s Maximum Clamping Voltage @I _{ppm} # V _c Max	10/1000 μ s Rated Peak Impulse Current I _{ppm} #
				V _{br} (Volts)		@I _t			
				(Volts)	Min	Max			
P4SMAJ43	JS	VS	43	47.8	58.4	1	5	76.7	5.2
P4SMAJ43A	JT	VT	43	47.8	52.8	1	5	69.4	5.7
P4SMAJ45	JU	VU	45	50	61.1	1	5	80.3	5.0
P4SMAJ45A	JV	VV	45	50	55.3	1	5	72.7	5.5
P4SMAJ48	JW	VW	48	53.3	65.1	1	5	85.5	4.7
P4SMAJ48A	JX	VX	48	53.3	58.9	1	5	77.4	5.2
P4SMAJ51	JY	VY	51	56.7	69.3	1	5	91.1	4.4
P4SMAJ51A	JZ	VZ	51	56.7	62.7	1	5	82.4	4.9
P4SMAJ54	RD	WD	54	60	73.3	1	5	96.3	4.2
P4SMAJ54A	RE	WE	54	60	66.3	1	5	87.1	4.6
P4SMAJ58	RF	WF	58	64.4	78.7	1	5	103	3.9
P4SMAJ58A	RG	WG	58	64.4	71.2	1	5	93.6	4.3
P4SMAJ60	RH	WH	60	66.7	81.5	1	5	107	3.7
P4SMAJ60A	RK	WK	60	66.7	73.7	1	5	96.8	4.1
P4SMAJ64	RL	WL	64	71.1	86.4	1	5	114	3.5
P4SMAJ64A	RM	WM	64	71.1	78.6	1	5	103	3.9
P4SMAJ70	RN	WN	70	77.8	95.1	1	5	125	3.2
P4SMAJ70A	RP	WP	70	77.8	86	1	5	113	3.5
P4SMAJ75	RQ	WQ	75	83.3	102	1	5	134	3.0
P4SMAJ75A	RR	WR	75	83.3	92.1	1	5	121	3.3
P4SMAJ78	RS	WS	78	86.7	106	1	5	139	2.9
P4SMAJ78A	RT	WT	78	86.7	95.8	1	5	126	2.2
P4SMAJ85	RU	WU	85	94.4	115	1	5	151	2.6
P4SMAJ85A	RV	WV	85	94.4	104	1	5	137	2.9
P4SMAJ90	RW	WW	90	100	122	1	5	160	2.5
P4SMAJ90A	RX	WX	90	100	111	1	5	146	2.7

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P4SMAJ Series – 400 Watt Surface Mount**Electrical Characteristics (continued)**

Part Number*	Uni Part Marking	Bi Part Marking	Rated Standoff Voltage VWM	Breakdown Voltage			Maximum Stand By Current @VWM+ ID	10/1000µs Maximum Clamping Voltage @IPPM# Vc Max	10/1000µs Rated Peak Impulse Current IPPM#
				Vbr (Volts)		@IT			
				(Volts)	Min	Max			
P4SMAJ100	RY	WY	100	111	136	1	5	179	2.2
P4SMAJ100A	RZ	WZ	100	111	123	1	5	162	2.5
P4SMAJ110	SD	XD	110	122	149	1	5	196	2
P4SMAJ110A	SE	XE	110	122	135	1	5	177	2.3
P4SMAJ120	SF	XF	120	133	163	1	5	214	1.9
P4SMAJ120A	SG	XG	120	133	147	1	5	193	2
P4SMAJ130	SH	XH	130	144	176	1	5	231	1.7
P4SMAJ130A	SK	XK	130	144	159	1	5	209	1.9
P4SMAJ150	SL	XL	150	167	204	1	5	268	1.5
P4SMAJ150A	SM	XM	150	167	185	1	5	243	1.6
P4SMAJ160	SN	XN	160	178	218	1	5	287	1.4
P4SMAJ160A	SP	XP	160	178	197	1	5	259	1.5
P4SMAJ170	SQ	XQ	170	189	231	1	5	304	1.3
P4SMAJ170A	SR	XR	170	189	209	1	5	275	1.4

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