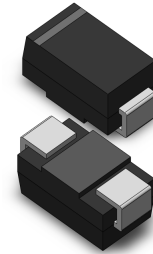


**VOLTAGE RANGE: 6.8 - 440 V**  
**POWER: 400Watts**

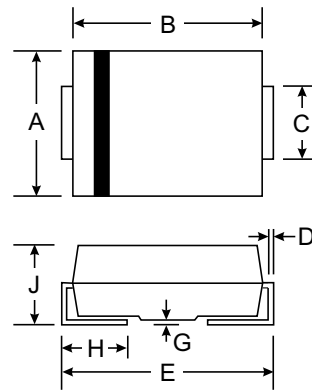
### Features

- Glass Passivated Die Construction
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Material: UL Flammability Classification Rating 94V-0



### Mechanical Data

- Case: DO-214AC(SMA), Transfer Molded Epoxy
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity Indicator: Cathode Band (Note: Bi-directional devices have no polarity indicator.)
- Marking: Date Code and Marking Code See Page 2
- Weight: 0.064 grams (approx.)



SMA(DO-214AC)		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.10	0.20
H	0.76	1.52
J	2.01	2.62
All Dimensions in mm		



### Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation (Non repetitive current pulse derated above $T_A = 25^\circ\text{C}$ ) (Note 1)	$P_{PK}$	400	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) (Notes 1, 2, & 3)	$I_{FSM}$	40	A
Instantaneous Forward Voltage @ $I_{PP} = 35\text{A}$ (Notes 1, 2, & 3)	$V_F$	3.5	V
Operating and Storage Temperature Range	$T_j, T_{STG}$	-55 to +150	$^\circ\text{C}$

- Notes:
1. Valid provided that terminals are kept at ambient temperature.
  2. Measured with 8.3ms single half sine-wave. Duty cycle = 4 pulses per minute maximum.
  3. Unidirectional units only.



TYPE		Marking		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I <sub>T</sub>	Breakdown Voltage Max. @ I <sub>T</sub>	Test Current	Maximum Clamping Voltage @I <sub>PP</sub>	Peak Pulse Current	Reverse Leakage @V <sub>RWM</sub>
(UNI)	(BI)	(UNI)	(BI)	V <sub>RWM</sub> (V)	V <sub>BR MIN</sub> (V)	V <sub>BR MAX</sub> (V)	I <sub>T</sub> (mA)	V <sub>C</sub> (V)	I <sub>PP</sub> (A)	I <sub>R</sub> (uA)
P4SMAJ6.8	P4SMAJ6.8C	6.8	6.8C	5.50	6.12	7.48	10	10.8	38.0	1000.0
P4SMAJ6.8A	P4SMAJ6.8CA	6.8A	6.8CA	5.80	6.45	7.14	10	10.5	40.0	1000.0
P4SMAJ7.5	P4SMAJ7.5	7.5	7.5C	6.05	6.75	8.25	10	11.7	36.0	500.0
P4SMAJ7.5A	P4SMAJ7.5CA	7.5A	7.5CA	6.40	7.13	7.88	10	11.3	37.0	500.0
P4SMAJ8.2	P4SMAJ8.2C	8.2	8.2C	6.63	7.38	9.02	10	12.5	33.0	200.0
P4SMAJ8.2A	P4SMAJ8.2CA	8.2A	8.2CA	7.02	7.79	8.61	10	12.1	35.0	200.0
P4SMAJ9.1	P4SMAJ9.1C	9.1	9.1C	7.37	8.19	10.0	1.0	13.8	30.0	50.0
P4SMAJ9.1A	P4SMAJ9.1CA	9.1A	9.1CA	7.78	8.65	9.55	1.0	13.4	31.0	50.0
P4SMAJ10	P4SMAJ10C	10	10C	8.10	9.00	11.0	1.0	15.0	28.0	10.0
P4SMAJ10A	P4SMAJ10CA	10A	10CA	8.55	9.50	10.5	1.0	14.5	29.0	10.0
P4SMAJ11	P4SMAJ11C	11	11C	8.92	9.90	12.1	1.0	16.2	26.0	5.0
P4SMAJ11A	P4SMAJ11CA	11A	11CA	9.40	10.5	11.6	1.0	15.6	27.0	5.0
P4SMAJ12	P4SMAJ12C	12	12C	9.72	10.8	13.2	1.0	17.3	24.0	5.0
P4SMAJ12A	P4SMAJ12CA	12A	12CA	10.2	11.4	12.6	1.0	16.7	25.0	5.0
P4SMAJ13	P4SMAJ13C	13	13C	10.5	11.7	14.3	1.0	19.0	22.0	5.0
P4SMAJ13A	P4SMAJ13CA	13A	13CA	11.1	12.4	13.7	1.0	18.2	23.0	5.0
P4SMAJ15	P4SMAJ15C	15	15C	12.1	13.5	16.5	1.0	22.0	19.0	5.0
P4SMAJ15A	P4SMAJ15CA	15A	15CA	12.8	14.3	15.8	1.0	21.2	20.0	5.0
P4SMAJ16	P4SMAJ16C	16	16C	12.9	14.4	17.6	1.0	23.5	18.0	5.0
P4SMAJ16A	P4SMAJ16CA	16A	16CA	13.6	15.2	16.8	1.0	22.5	19.0	5.0
P4SMAJ18	P4SMAJ18C	18	18C	14.5	16.2	19.8	1.0	26.5	16.0	5.0
P4SMAJ18A	P4SMAJ18CA	18A	18CA	15.3	17.1	18.9	1.0	25.2	17.0	5.0
P4SMAJ20	P4SMAJ20C	20	10C	16.2	18.0	22.0	1.0	29.1	14.0	5.0
P4SMAJ20A	P4SMAJ20CA	20A	20CA	17.1	19.0	21.0	1.0	27.7	15.0	5.0
P4SMAJ22	P4SMAJ22C	22	22C	17.8	19.8	24.2	1.0	31.9	13.0	5.0
P4SMAJ22A	P4SMAJ22CA	22A	22CA	18.8	20.9	23.1	1.0	30.6	14.0	5.0
P4SMAJ24	P4SMAJ24C	24	24C	19.4	21.6	26.4	1.0	34.7	12.0	5.0
P4SMAJ24A	P4SMAJ24CA	24A	24CA	20.5	22.8	25.2	1.0	33.2	13.0	5.0
P4SMAJ27	P4SMAJ27C	27	27C	21.8	24.3	29.7	1.0	39.1	11.0	5.0
P4SMAJ27A	P4SMAJ27CA	27A	27CA	23.1	25.7	28.4	1.0	37.5	11.2	5.0
P4SMAJ30	P4SMAJ30C	30	30C	24.3	27.0	33.0	1.0	43.5	10.0	5.0
P4SMAJ30A	P4SMAJ30CA	30A	30CA	25.6	28.5	31.5	1.0	41.4	10.0	5.0
P4SMAJ33	P4SMAJ33C	33	33C	26.8	29.7	36.3	1.0	47.7	9.0	5.0
P4SMAJ33A	P4SMAJ33CA	33A	33CA	28.2	31.4	34.7	1.0	45.7	9.0	5.0
P4SMAJ36	P4SMAJ36C	36	36C	29.1	32.4	39.6	1.0	52.0	8.0	5.0
P4SMAJ36A	P4SMAJ36CA	36A	36CA	30.8	34.2	37.8	1.0	49.9	8.4	5.0
P4SMAJ39	P4SMAJ39C	39	39C	31.6	35.1	42.9	1.0	56.4	7.4	5.0
P4SMAJ39A	P4SMAJ39CA	39A	39CA	33.3	37.1	41.0	1.0	53.9	7.8	5.0
P4SMAJ43	P4SMAJ43C	43	43C	34.8	38.7	47.3	1.0	61.9	6.8	5.0
P4SMAJ43A	P4SMAJ43CA	43A	43CA	36.8	40.9	45.2	1.0	59.3	7.1	5.0
P4SMAJ47	P4SMAJ47C	47	47C	38.1	42.3	51.7	1.0	67.8	6.2	5.0
P4SMAJ47A	P4SMAJ47CA	47A	47CA	40.8	44.7	49.4	1.0	64.8	5.0	5.0
P4SMAJ51	P4SMAJ51C	51	51C	41.3	45.9	56.1	1.0	73.5	5.7	5.0
P4SMAJ51A	P4SMAJ51CA	51A	51CA	43.6	48.5	53.6	1.0	70.1	6.0	5.0

TYPE		Marking		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I <sub>T</sub>	Breakdown Voltage Max. @ I <sub>T</sub>	Test Current	Maximum Clamping Voltage @I <sub>PP</sub>	Peak Pulse Current	Reverse Leakage @V <sub>RWM</sub>
(UNI)	(BI)	(UNI)	(BI)	V <sub>RWM</sub> (V)	V <sub>BR MIN</sub> (V)	V <sub>BR MAX</sub> (V)	I <sub>T</sub> (mA)	V <sub>C</sub> (V)	I <sub>PP</sub> (A)	I <sub>R</sub> (uA)
P4SMAJ56	P4SMAJ56C	56	56C	45.4	50.4	61.6	1.0	80.5	5.2	5.0
P4SMAJ56A	P4SMAJ56CA	56A	56CA	47.8	53.2	58.8	1.0	77.0	5.5	5.0
P4SMAJ62	P4SMAJ62C	62	62C	50.2	55.8	68.2	1.0	89.0	4.7	5.0
P4SMAJ62A	P4SMAJ62CA	62A	62CA	53.0	58.9	65.1	1.0	85.0	5.0	5.0
P4SMAJ68	P4SMAJ68C	68	68C	55.1	61.2	74.8	1.0	98.0	4.3	5.0
P4SMAJ68A	P4SMAJ68CA	68A	68CA	58.1	64.6	71.4	1.0	92.0	4.6	5.0
P4SMAJ75	P4SMAJ75C	75	75C	60.7	67.5	82.5	1.0	108	3.9	5.0
P4SMAJ75A	P4SMAJ75CA	75A	75CA	64.1	71.3	78.8	1.0	103	4.1	5.0
P4SMAJ82	P4SMAJ82C	82	82C	66.4	73.8	90.2	1.0	118	3.6	5.0
P4SMAJ82A	P4SMAJ82CA	82A	82CA	70.4	77.9	86.1	1.0	113	3.7	5.0
P4SMAJ91	P4SMAJ91C	91	91C	73.7	81.9	100	1.0	131	3.2	5.0
P4SMAJ91A	P4SMAJ91CA	91A	91CA	77.8	86.5	95.5	1.0	125	3.4	5.0
P4SMAJ100	P4SMAJ100C	100	100C	81.0	90.0	110	1.0	144	2.9	5.0
P4SMAJ100A	P4SMAJ100CA	100A	100CA	85.5	95.0	105	1.0	137	3.1	5.0
P4SMAJ110	P4SMAJ110C	110	110C	89.2	99.0	121	1.0	158	2.7	5.0
P4SMAJ110A	P4SMAJ110CA	110A	110CA	94.0	105	116	1.0	152	2.8	5.0
P4SMAJ120	P4SMAJ120C	120	120C	97.2	108	132	1.0	173	2.4	5.0
P4SMAJ120A	P4SMAJ120CA	120A	120CA	102	114	126	1.0	165	2.5	5.0
P4SMAJ130	P4SMAJ130C	130	130C	105	117	143	1.0	187	2.2	5.0
P4SMAJ130A	P4SMAJ130CA	130A	130CA	111	124	137	1.0	179	2.3	5.0
P4SMAJ150	P4SMAJ150C	150	150C	121	135	165	1.0	215	2.0	5.0
P4SMAJ150A	P4SMAJ150CA	150A	150CA	128	143	158	1.0	207	2.0	5.0
P4SMAJ160	P4SMAJ160C	160	160C	130	144	176	1.0	230	1.8	5.0
P4SMAJ160A	P4SMAJ160CA	160A	160CA	136	152	168	1.0	219	1.9	5.0
P4SMAJ170	P4SMAJ170C	170	170C	138	153	187	1.0	244	1.7	5.0
P4SMAJ170A	P4SMAJ170CA	170A	170CA	145	162	179	1.0	234	1.8	5.0
P4SMAJ180	P4SMAJ180C	180	180C	146	162	198	1.0	258	1.6	5.0
P4SMAJ180A	P4SMAJ180CA	180A	180CA	154	171	189	1.0	246	1.7	5.0
P4SMAJ200	P4SMAJ200C	200	200C	162	180	220	1.0	287	1.5	5.0
P4SMAJ200A	P4SMAJ200CA	200A	200CA	171	190	210	1.0	274	1.53	5.0
P4SMAJ220	P4SMAJ220C	220	220C	175	198	242	1.0	344	1.16	5.0
P4SMAJ220A	P4SMAJ220CA	220A	220CA	185	209	231	1.0	328	1.22	5.0
P4SMAJ250	P4SMAJ250C	250	250C	202	225	275	1.0	360	1.1	5.0
P4SMAJ250A	P4SMAJ250CA	250A	250CA	214	237	263	1.0	344	1.16	5.0
P4SMAJ300	P4SMAJ300C	300	300C	243	270	330	1.0	430	0.93	5.0
P4SMAJ300A	P4SMAJ300CA	300A	300CA	256	285	315	1.0	414	0.97	5.0
P4SMAJ350	P4SMAJ350C	350	350C	284	315	385	1.0	504	0.79	5.0
P4SMAJ350A	P4SMAJ350CA	350A	350CA	300	333	368	1.0	482	0.83	5.0
P4SMAJ400	P4SMAJ400C	400	400C	324	360	440	1.0	574	0.70	5.0
P4SMAJ400A	P4SMAJ400CA	400A	400CA	342	380	420	1.0	548	0.73	5.0
P4SMAJ440	P4SMAJ440C	440	440C	356	396	484	1.0	631	0.63	5.0
P4SMAJ440A	P4SMAJ440CA	440A	440CA	376	418	462	1.0	602	0.65	5.0

## Ratings and Characteristic Curves $T_A=25^\circ\text{C}$ unless otherwise noted

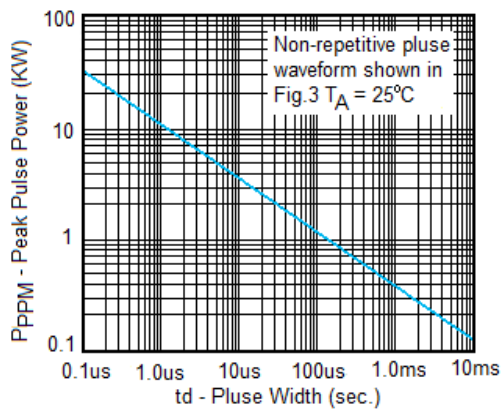


Fig. 1 Peak Pulse Power Rating

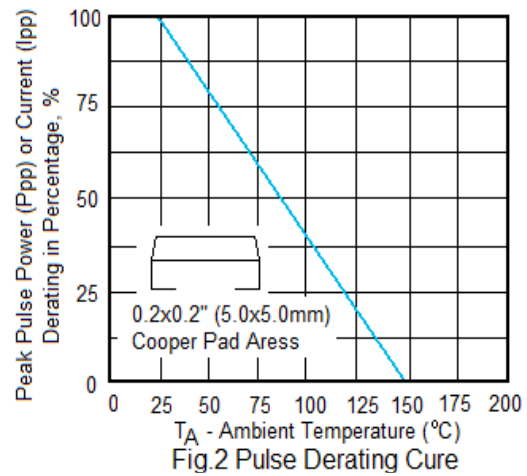


Fig. 2 Pulse Derating Curve

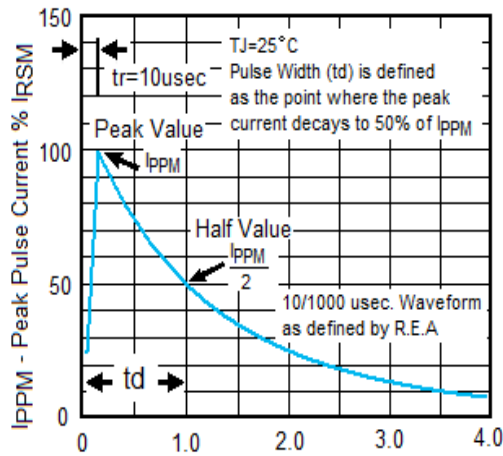


Fig. 3 Pulse Waveform

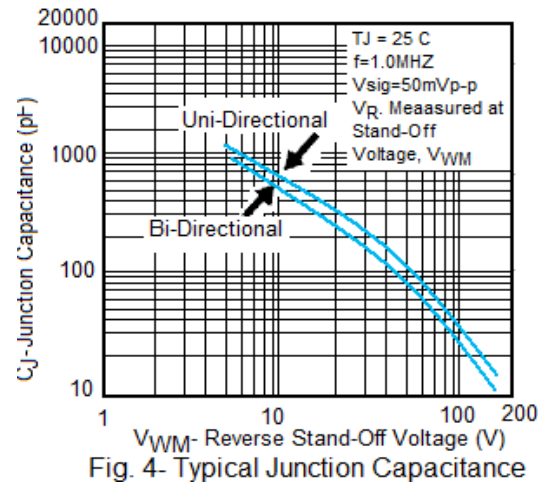


Fig. 4 - Typical Junction Capacitance