

# P6SMA\*\*\*CA

## SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

600 Watt Peak Pulse Power

### FEATURES

- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* For surface mounted applications in order to optimize board space
- \* Low profile package
- \* Built-in strain relief
- \* Glass passivated junction
- \* Low inductance
- \* Excellent clamping capability
- \* Repetition Rate (duty cycle):0.01%
- \* Fast response time: typically less than 1.0ps from 0 Volts to V(BR) for unidirectional types
- \* Typical IR less than 1mA above 10V
- \* High temperature soldering guaranteed:  
260°C/10 seconds,

### MECHANICAL DATA

**Case:** JEDEC DO-214AC molded plastic

**Terminals:** Axial leads, solderable per MIL-STD-202, Method 208

**Polarity:** Color band denoted cathode except Bipolar

**Mounting Position:** Any

**Weight:** 0.0026 ounce, 0.075 gram

### 1.DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types P6SMA62CA

Electrical characteristics apply in both directions.marking like Uni; without color band.

### MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

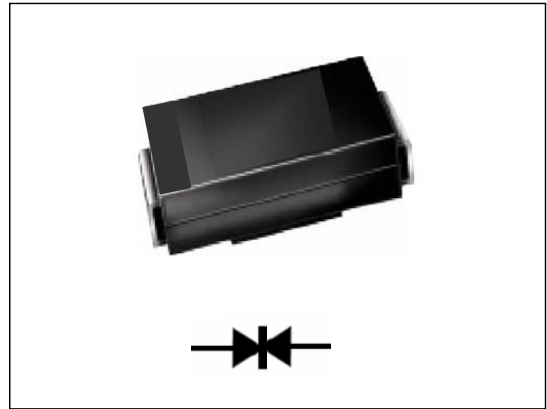
Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

RATING	SYMBOL	VALUE	UNITS
Peak Power Dissipation at $T_A=25^\circ\text{C}$ , $T_P=1\text{ms}$ (Note 1)	$P_{PPM}$	Minimum 600	Watts
Steady State Power Dissipation at $T_L=75^\circ\text{C}$ (Note 2)	$P_{M(AV)}$	5.0	Watts
Operating Temperature Range	$T_J$	-55 to +150	°C
Storage Temperature Range	$T_{STG}$	-55 to +175	°C

NOTES:

1. Non-repetitive current pulse, per Fig. 3 and derated above  $T_A=25^\circ\text{C}$  per Fig. 2.
2. Mounted on Copper Leaf area of 1.57in<sup>2</sup>(40mm<sup>2</sup>).
3. 8.3ms single half sine-wave, duty cycle= 4 pulses per minutes maximum.



We declare that the material of product compliance with ROHS requirements

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UNI-DIRECTIONAL PART NUMBER	Device marking code	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @IPP VC (V)	REVERSE LEAKAGE @VRWM IR (uA)
P6SMA6.8C	6.8	5.5	6.12	7.48	10	10.8	1000
P6SMA6.8CA	6.8A	5.8	6.45	7.14	10	10.5	1000
P6SMA7.5C	7.5	6.05	6.75	8.25	10	11.7	500
P6SMA7.5CA	7.5A	6.4	7.13	7.88	10	11.3	500
P6SMA8.2C	8.2	6.63	7.38	9.02	10	12.5	200
P6SMA8.2CA	8.2A	7.02	7.79	8.61	10	12.1	200
P6SMA9.1C	9.1	7.37	8.19	10	1	13.8	50
P6SMA9.1CA	9.1A	7.78	8.65	9.5	1	13.4	50
P6SMA10C	10	8.1	9	11	1	15	10
P6SMA10CA	10A	8.55	9.5	10.5	1	14.5	10
P6SMA11C	11	8.92	9.9	12.1	1	16.2	1
P6SMA11CA	11A	9.4	10.5	11.6	1	15.6	1
P6SMA12C	12	9.72	10.8	13.2	1	17.3	1
P6SMA12CA	12A	10.2	11.4	12.6	1	16.7	1
P6SMA13C	13	10.5	11.7	14.3	1	19	1
P6SMA13CA	13A	11.1	12.4	13.7	1	18.2	1
P6SMA15C	15	12.1	13.5	16.5	1	22	1
P6SMA15CA	15A	12.8	14.3	15.8	1	21.2	1
P6SMA16C	16	12.9	14.4	17.6	1	23.5	1
P6SMA16CA	16A	13.6	15.2	16.8	1	22.5	1
P6SMA18C	18	14.5	16.2	19.8	1	26.5	1
P6SMA18CA	18A	15.3	17.1	18.9	1	25.2	1
P6SMA20C	20	16.2	18	22	1	29.1	1
P6SMA20CA	20A	17.1	19	21	1	27.7	1
P6SMA22C	22	17.8	19.8	24.2	1	31.9	1
P6SMA22CA	22A	18.8	20.9	23.1	1	30.6	1
P6SMA24C	24	19.4	21.6	26.4	1	34.7	1
P6SMA24CA	24A	20.5	22.8	25.2	1	33.2	1
P6SMA27C	27	21.8	24.3	29.7	1	39.1	1
P6SMA27CA	27A	23.1	25.7	28.4	1	37.5	1
P6SMA30C	30	24.3	27	33	1	43.5	1
P6SMA30CA	30A	25.6	28.5	31.5	1	41.4	1
P6SMA33C	33	26.8	29.7	36.3	1	47.7	1
P6SMA33CA	33A	28.2	31.4	34.7	1	45.7	1
P6SMA36C	36	29.1	32.4	39.6	1	52	1
P6SMA36CA	36A	30.8	34.2	37.8	1	49.9	1
P6SMA39C	39	31.6	35.1	42.9	1	56.4	1
P6SMA39CA	39A	33.3	37.1	41	1	53.9	1
P6SMA43C	43	34.8	38.7	47.3	1	61.9	1
P6SMA43CA	43A	36.8	40.9	45.2	1	59.3	1
P6SMA47C	47	38.1	42.3	51.7	1	67.8	1
P6SMA47CA	47A	40.2	44.7	49.4	1	64.8	1
P6SMA51C	51	41.3	45.9	56.1	1	73.5	1
P6SMA51CA	51A	43.6	48.5	53.6	1	70.1	1
P6SMA56C	56	45.6	50.4	61.6	1	80.5	1
P6SMA56CA	56A	47.8	53.2	58.8	1	77	1
P6SMA62C	62	50.2	55.8	68.2	1	89	1
P6SMA62CA	62A	53	58.9	65.1	1	85	1
P6SMA68C	68	55.1	61.2	74.8	1	98	1

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UNI-DIRECTIONAL	Device marking code	REVERSE	BREAKDOWN	BREAKDOWN	TEST	MAXIMUM	REVERSE
PART NUMBER		STAND-OFF VOLTAGE	VOLTAGE	VOLTAGE	CURRENT	CLAMPING	LEAKAGE
		VOLTAGE	VBR (V)	VBR (V)	IT	VOLTAGE	@VRWM
		VRWM (V)	MIN. @IT	MAX. @IT	(mA)	@IPP VC (V)	IR (uA)
P6SMA68CA	68A	58.1	64.6	71.4	1	92	1
P6SMA75C	75	60.7	67.5	82.5	1	108	1
P6SMA75CA	75A	64.1	71.3	78.8	1	103	1
P6SMA82C	82	66.4	73.8	90.2	1	118	1
P6SMA82CA	82A	70.1	77.9	86.1	1	113	1
P6SMA91C	91	73.7	81.9	100	1	131	1
P6SMA91CA	91A	77.8	86.5	95.5	1	125	1
P6SMA100C	100	81	90	110	1	144	1
P6SMA100CA	100A	85.5	95	105	1	137	1
P6SMA110C	110	89.2	99	121	1	158	1
P6SMA110CA	110A	94	105	116	1	152	1
P6SMA120C	120	97.2	108	132	1	173	1
P6SMA120CA	120A	102	114	126	1	165	1
P6SMA130C	130	105	117	143	1	187	1
P6SMA130CA	130A	111	124	137	1	179	1
P6SMA150C	150	121	135	165	1	215	1
P6SMA150CA	150A	128	143	158	1	207	1
P6SMA160C	160	130	144	176	1	230	1
P6SMA160CA	160A	136	152	168	1	219	1
P6SMA170C	170	138	153	187	1	244	1
P6SMA170CA	170A	145	162	179	1	234	1
P6SMA180C	180	146	162	198	1	258	1
P6SMA180CA	180A	154	171	189	1	246	1
P6SMA200C	200	162	180	220	1	287	1
P6SMA200CA	200A	171	190	210	1	274	1
P6SMA220C	220	175	198	242	1	344	1
P6SMA220CA	220A	185	209	231	1	328	1
P6SMA250C	250	202	225	275	1	360	1
P6SMA250CA	250A	214	237	263	1	344	1
P6SMA300C	300	243	270	330	1	430	1
P6SMA300CA	300A	256	285	315	1	414	1

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## 2. Ratings and Characteristic Curves ( TA = 25°C unless otherwise noted )

Fig. 1-Peak Pulse Power Rating Curve

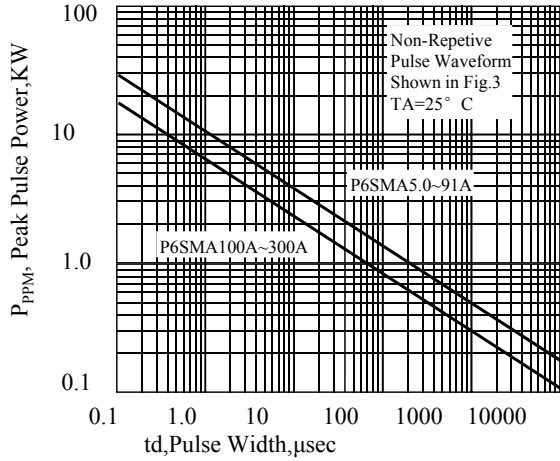
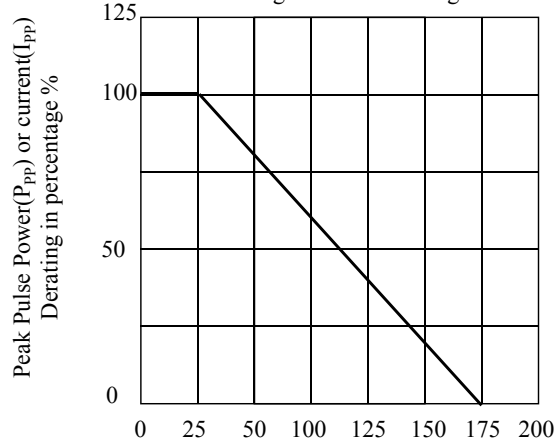


Fig. 2-Pulse Derating Curve



TA, Ambient Temperature, ° C

Fig. 4-Typical Junction Capacitance Unidirectional

Fig. 3-Pulse Waveform

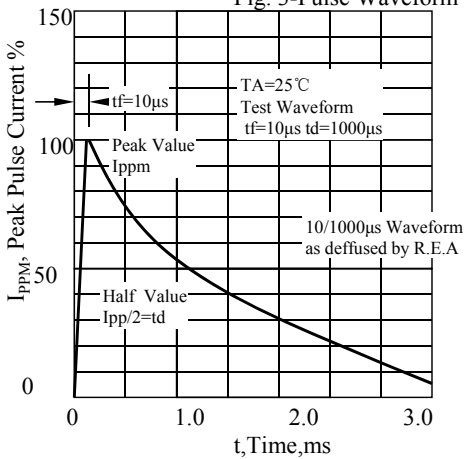


Fig. 4-Typical Junction Capacitance Unidirectional

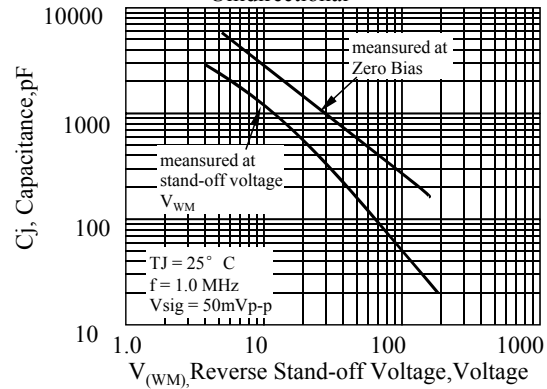


Fig 5. - typical transient thermal impedance

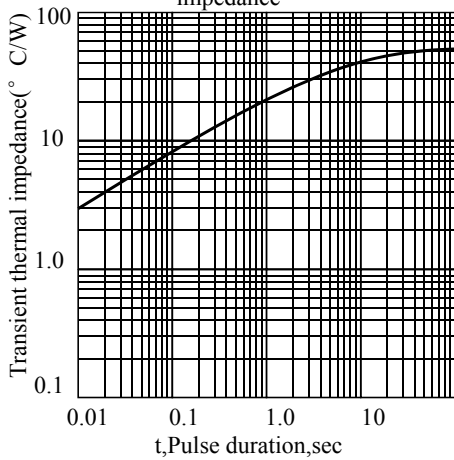
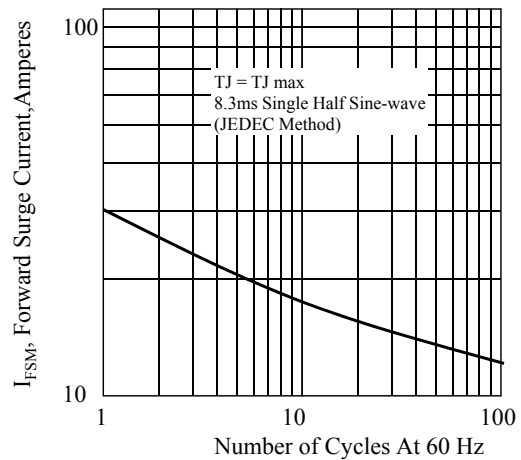
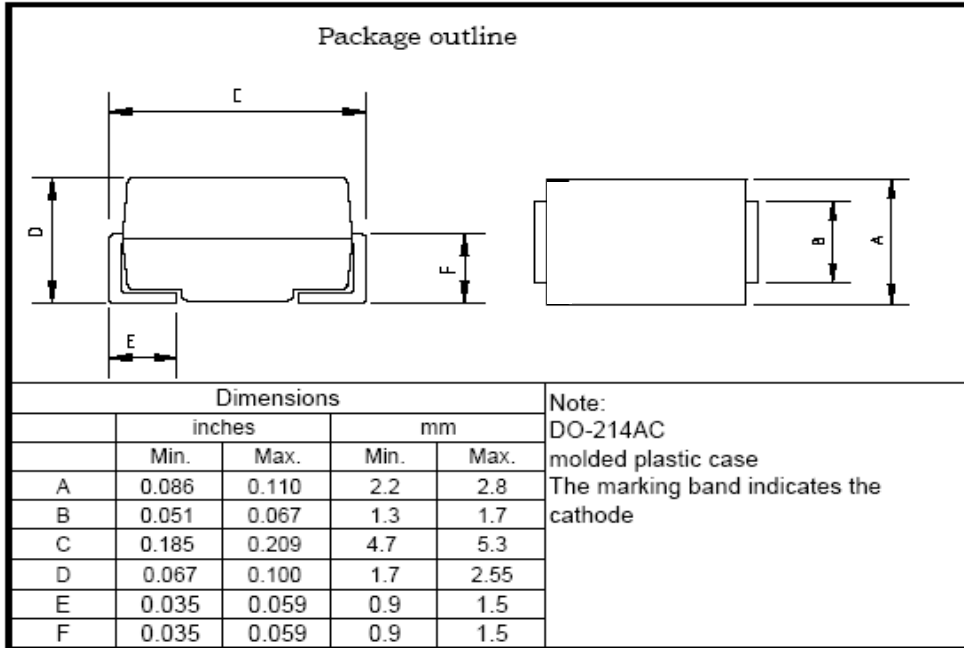


Fig. 6-Maximum Non-Repetitive Peak Forward Surge Current Unidirectional

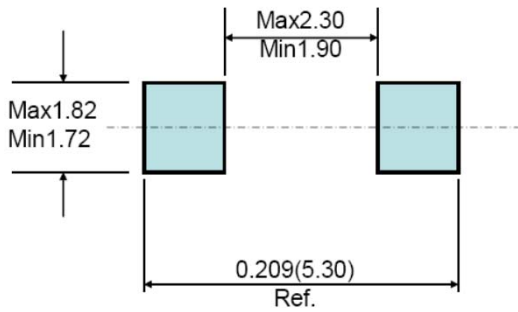


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### 3. dimension:



### Mounting Pad Layout ---SMA



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### 4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	周杰	2010-7-29
2	将双向产品独立分出来	周杰	2012-11-5

单击下面可查看定价，库存，交付和生命周期等信息

[>>LRC\(乐山无线电\)](#)