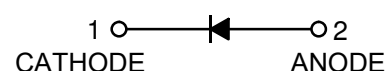
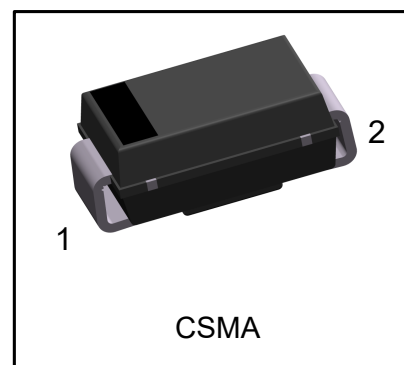


S-CP6SMAJ***A

Surface Mount Transient Voltage Suppressors
600 Watt Peak Pulse Power

1. FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- 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
- We declare that the material of product complies with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.



2. MECHANICAL DATA

Case: JEDEC DO-214AC, molded plastic over glass die

Terminals: Plated axial leads, solderable per
MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.07g

3. 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%.

PARAMETER	SYMBOL	VALUE	UNITS
Peak Power Dissipation at $T_A=25^{\circ}\text{C}$, $T_P=1\text{ms}$ (Note 1)	PPPM	Minimum 600	W
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JECED Method) (Note 2)	I_{FSM}	60	A
Operating Junction Temperature Range	T_J	-55 to +150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

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^2 (40mm^2).
3. 8.3ms single half sine-wave, duty cycle= 4 pulses per minutes maximum.

4. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Uni- Directional Part Number	Device Marking	REVERSE STAND- OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE @IT VBR (V)		TEST CURREN T IT (mA)	MAXIMUMN CLAMPING VOLTAGE@ IPP VC (V)	PEAK PULSE CURREN T IPP (A)	REVERSE LEAKAGE @VRWM IR (uA)
			MIN.	MAX.				
S-CP6SMAJ5.0A	P6J5.0A	5	6.4	7.0	10.0	9.2	65.3	800
S-CP6SMAJ6.0A	P6J6.0A	6	6.7	7.4	10.0	10.3	58.3	800
S-CP6SMAJ6.5A	P6J6.5A	6.5	7.2	8.0	10.0	11.2	53.6	500
S-CP6SMAJ7.0A	P6J7.0A	7	7.8	8.6	10.0	12.0	50.0	200
S-CP6SMAJ7.5A	P6J7.5A	7.5	8.3	9.2	1.0	12.9	46.6	100
S-CP6SMAJ8.0A	P6J8.0A	8	8.9	9.8	1.0	13.6	44.2	50
S-CP6SMAJ8.5A	P6J8.5A	8.5	9.4	10.4	1.0	14.4	41.7	20
S-CP6SMAJ9.0A	P6J9.0A	9	10.0	11.1	1.0	15.4	39.0	10
S-CP6SMAJ10A	P6J10A	10	11.1	12.3	1.0	17.0	35.3	1
S-CP6SMAJ11A	P6J11A	11	12.2	13.5	1.0	18.2	33.0	1
S-CP6SMAJ12A	P6J12A	12	13.3	14.7	1.0	19.9	30.2	1
S-CP6SMAJ13A	P6J13A	13	14.4	15.9	1.0	21.5	28.0	1
S-CP6SMAJ14A	P6J14A	14	15.6	17.2	1.0	23.2	25.9	1
S-CP6SMAJ15A	P6J15A	15	16.7	18.5	1.0	24.4	24.6	1
S-CP6SMAJ16A	P6J16A	16	17.8	19.7	1.0	26.0	23.1	1
S-CP6SMAJ17A	P6J17A	17	18.9	20.9	1.0	27.6	21.8	1
S-CP6SMAJ18A	P6J18A	18	20.0	22.1	1.0	29.2	20.6	1
S-CP6SMAJ20A	P6J20A	20	22.2	24.5	1.0	32.4	18.6	1
S-CP6SMAJ22A	P6J22A	22	24.4	26.9	1.0	35.5	16.9	1
S-CP6SMAJ24A	P6J24A	24	26.7	29.5	1.0	38.9	15.5	1
S-CP6SMAJ26A	P6J26A	26	28.9	31.9	1.0	42.1	14.3	1
S-CP6SMAJ28A	P6J28A	28	31.1	34.4	1.0	45.4	13.3	1
S-CP6SMAJ30A	P6J30A	30	33.3	36.8	1.0	48.4	12.4	1
S-CP6SMAJ33A	P6J33A	33	36.7	40.6	1.0	53.3	11.3	1
S-CP6SMAJ36A	P6J36A	36	40.0	44.2	1.0	58.1	10.4	1
S-CP6SMAJ40A	P6J40A	40	44.4	49.1	1.0	64.5	9.3	1
S-CP6SMAJ43A	P6J43A	43	47.8	52.8	1.0	69.4	8.7	1
S-CP6SMAJ45A	P6J45A	45	50.0	55.3	1.0	72.7	8.3	1
S-CP6SMAJ48A	P6J48A	48	53.3	58.9	1.0	77.4	7.8	1
S-CP6SMAJ51A	P6J51A	51	56.7	62.7	1.0	82.4	7.3	1
S-CP6SMAJ54A	P6J54A	54	60.0	66.3	1.0	87.1	6.9	1
S-CP6SMAJ58A	P6J58A	58	64.4	71.2	1.0	93.6	6.5	1
S-CP6SMAJ60A	P6J60A	60	66.7	73.7	1.0	96.8	6.2	1
S-CP6SMAJ64A	P6J64A	64	71.1	78.6	1.0	103.0	5.9	1
S-CP6SMAJ70A	P6J70A	70	77.8	86.0	1.0	113.0	5.3	1
S-CP6SMAJ75A	P6J75A	75	83.3	92.1	1.0	121.0	5.0	1
S-CP6SMAJ78A	P6J78A	78	86.7	95.8	1.0	126.0	4.8	1
S-CP6SMAJ85A	P6J85A	85	94.4	104.0	1.0	137.0	4.4	1
S-CP6SMAJ90A	P6J90A	90	100.0	111.0	1.0	146.0	4.1	1
S-CP6SMAJ100A	P6J100A	100	111.0	123.0	1.0	162.0	3.7	1
S-CP6SMAJ110A	P6J110A	110	122.0	135.0	1.0	177.0	3.4	1
S-CP6SMAJ120A	P6J120A	120	133.0	147.0	1.0	193.0	3.1	1
S-CP6SMAJ130A	P6J130A	130	144.0	159.0	1.0	209.0	2.9	1
S-CP6SMAJ150A	P6J150A	150	167.0	185.0	1.0	243.0	2.5	1
S-CP6SMAJ160A	P6J160A	160	178.0	197.0	1.0	259.0	2.3	1
S-CP6SMAJ170A	P6J170A	170	189.0	209.0	1.0	275.0	2.2	1
S-CP6SMAJ180A	P6J180A	180	198.0	221.0	1.0	291.0	2.1	1
S-CP6SMAJ190A	P6J190A	190	209.0	233.0	1.0	307.0	2.0	1
S-CP6SMAJ200A	P6J200A	200	220.0	246.0	1.0	324.0	1.9	1
S-CP6SMAJ220A	P6J220A	220	246.0	272.0	1.0	356.0	1.7	1
S-CP6SMAJ250A	P6J250A	250	279.0	309.0	1.0	405.0	1.5	1

5. ELECTRICAL CHARACTERISTIC CURVES

Fig. 1-Peak Pulse Power Rating Curve

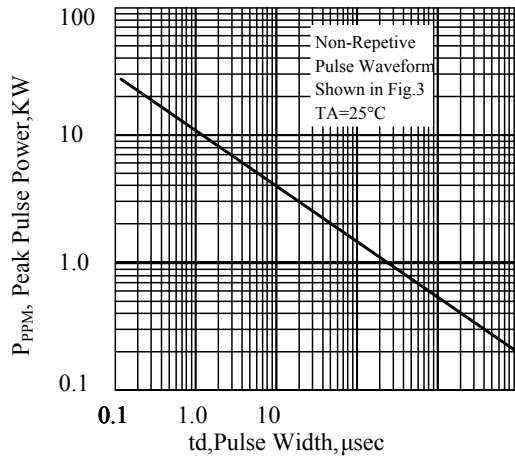


Fig. 2-Pulse Derating Curve

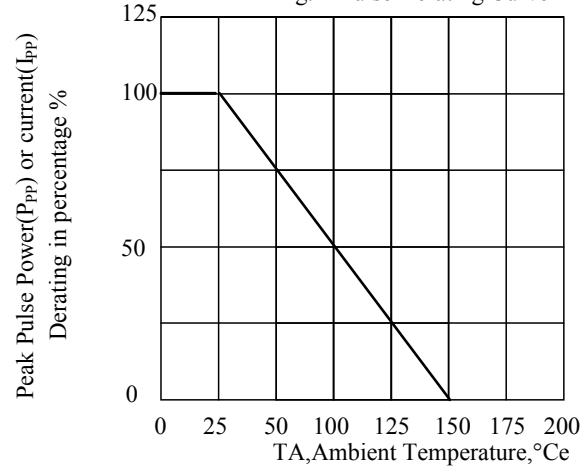


Fig. 3-Pulse Waveform

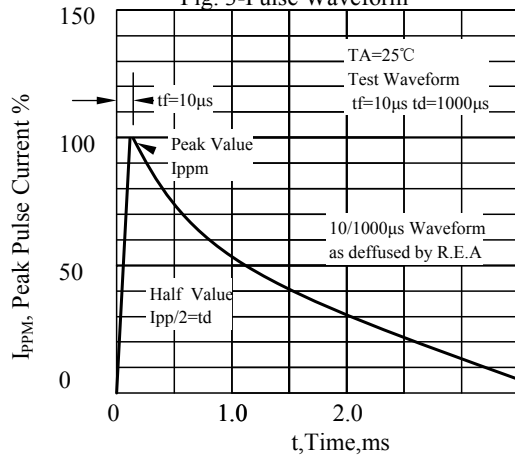


Fig. 4-Typical Junction Capacitance Unidirectional

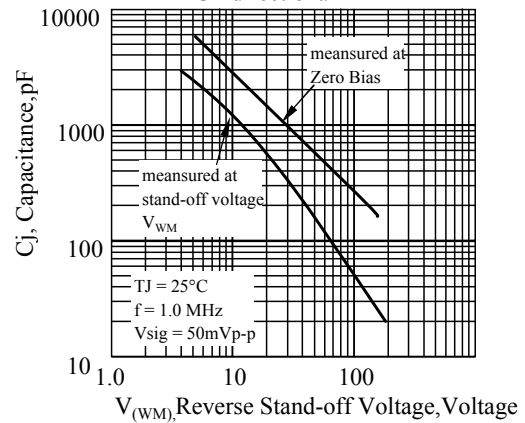


Fig 5. - typical transient thermal impedance

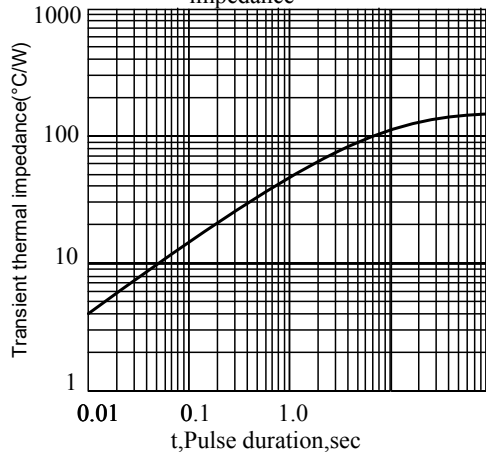
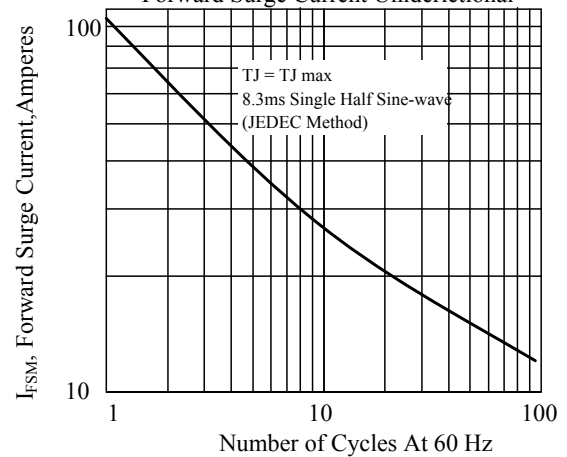
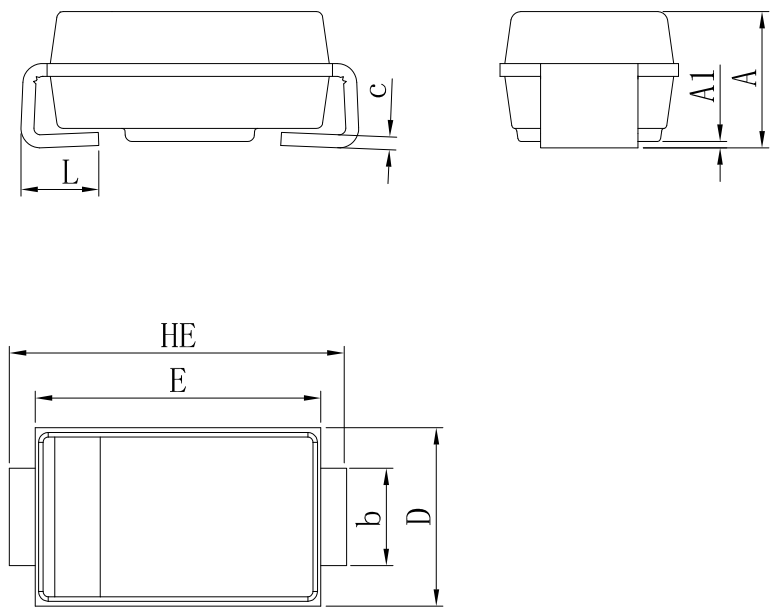


Fig. 6-Maximum Non-Repetitive Peak Forward Surge Current Unidirectional

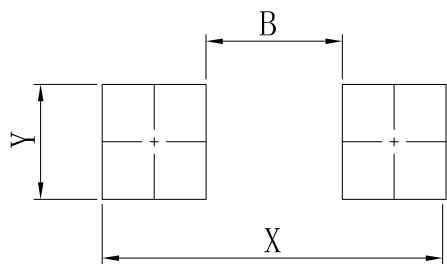


6. OUTLINE AND DIMENSIONS



CSMA			
DIM	MIN	TYP	MAX
A	1.97	2.10	2.29
A1	0.05	0.10	0.20
b	1.35	1.50	1.65
c	0.10	0.20	0.30
D	2.40	2.75	2.92
E	4.10	4.40	4.57
HE	4.70	5.27	5.59
L	0.76	1.20	1.52
All Dimensions in mm			

7. SOLDERING FOOTPRINT



CSMA		
DIM	MIN	MAX
X	5.30REF	
Y	1.72	1.82
B	1.90	2.30

DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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