


SMA6J6.0CA  
THRU  
SMA6J58CA



SILICON  
BI-DIRECTIONAL  
GLASS PASSIVATED JUNCTION  
TRANSIENT VOLTAGE SUPPRESSORS  
600 Watt, 6.0 THRU 58 VOLT



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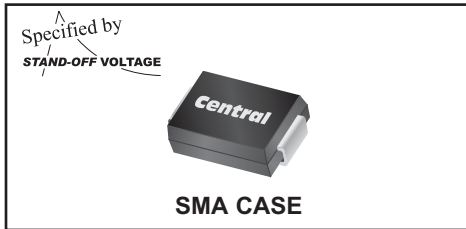
**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR SMA6J6.0CA series devices are bi-directional Transient Voltage Suppressors. Note: For uni-directional devices refer to SMA6J5.0A Series data sheet.

**MARKING: Full Part Number**

**FEATURES:**

- Glass passivated junction
- Low leakage



**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

	SYMBOL		UNITS
Peak Power Dissipation (Note 1)	$P_{PK}$	600	W
Power Dissipation ( $T_L=75^\circ\text{C}$ )	$P_D$	3.0	W
Peak Forward Surge Current ( $t=8.3\text{ms}$ )	$I_{FSM}$	60	A
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-55 to +150	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$ )

Type	Reverse Stand-Off Voltage	Breakdown Voltage		Test Current	Maximum Reverse Leakage Current	Maximum Clamping Voltage	Peak Pulse Current (Note 1)	Marking Code
	$V_{RWM}$	$V_{BR} @ I_T$		$I_T$	$I_R @ V_{RWM}$	$V_C @ I_{PP}$	$I_{PP}$	
	V	MIN V	MAX V	mA	$\mu\text{A}$	V	A	
SMA6J6.0CA	6.0	6.67	7.37	10	1600	10.3	58.3	CKGCA
SMA6J6.5CA	6.5	7.22	7.98	10	1000	11.2	53.6	CKKCA
SMA6J7.0CA	7.0	7.78	8.60	10	400	12.0	50.0	CKMCA
SMA6J7.5CA	7.5	8.33	9.21	1.0	200	12.9	46.5	CKPCA
SMA6J8.0CA	8.0	8.89	9.83	1.0	100	13.6	44.1	CKRCA
SMA6J8.5CA	8.5	9.44	10.4	1.0	20	14.4	41.7	CKTCA
SMA6J9.0CA	9.0	10.0	11.1	1.0	10	15.4	39.0	CKVCA
SMA6J10CA	10	11.1	12.3	1.0	2.0	17.0	35.3	CKXCA
SMA6J11CA	11	12.2	13.5	1.0	1.0	18.2	33.0	CKZCA
SMA6J12CA	12	13.3	14.7	1.0	1.0	19.9	30.2	CLECA
SMA6J13CA	13	14.4	15.9	1.0	1.0	21.5	27.9	CLGCA
SMA6J14CA	14	15.6	17.2	1.0	1.0	23.2	25.9	CLKCA
SMA6J15CA	15	16.7	18.5	1.0	1.0	24.4	24.6	CLMCA
SMA6J16CA	16	17.8	19.7	1.0	1.0	26.0	23.1	CLPCA
SMA6J17CA	17	18.9	20.9	1.0	1.0	27.6	21.7	CLRCA
SMA6J18CA	18	20.0	22.1	1.0	1.0	29.2	20.5	CLTCA
SMA6J19CA	19	21.1	23.3	1.0	1.0	30.8	19.5	CLUCA
SMA6J20CA	20	22.2	24.5	1.0	1.0	32.4	18.5	CLVCA
SMA6J22CA	22	24.4	26.9	1.0	1.0	35.5	16.9	CLXCA

Note 1: Non-repetitive 10x1,000 $\mu\text{s}$  pulse.

R1 (9-April 2018)

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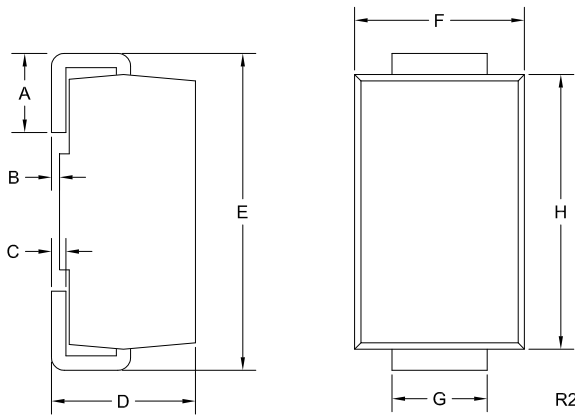
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**ELECTRICAL CHARACTERISTICS - Continued:** ( $T_A=25^\circ\text{C}$ )

Type	Reverse Stand-Off Voltage	Breakdown Voltage		Test Current	Maximum Reverse Leakage Current	Maximum Clamping Voltage	Peak Pulse Current (Note 1)	Marking Code
	$V_{RWM}$	$V_{BR} @ I_T$		$I_T$	$I_R @ V_{RWM}$	$V_C @ I_{PP}$	$I_{PP}$	
	V	MIN V	MAX V	mA	$\mu\text{A}$	V	A	
SMA6J24CA	24	26.7	29.5	1.0	1.0	38.9	15.4	CLZCA
SMA6J26CA	26	28.9	31.9	1.0	1.0	42.1	14.3	CMECA
SMA6J28CA	28	31.1	34.4	1.0	1.0	45.4	13.2	CMGCA
SMA6J30CA	30	33.3	36.8	1.0	1.0	48.4	12.4	CMKCA
SMA6J33CA	33	36.7	40.6	1.0	1.0	53.3	11.3	CMMCA
SMA6J36CA	36	40.0	44.2	1.0	1.0	58.1	10.3	CMPCA
SMA6J40CA	40	44.4	49.1	1.0	1.0	64.5	9.3	CMRCA
SMA6J43CA	43	47.8	52.8	1.0	1.0	69.4	8.65	CMTCA
SMA6J45CA	45	50.0	55.3	1.0	1.0	72.7	8.25	CMVCA
SMA6J48CA	48	53.3	58.9	1.0	1.0	77.4	7.75	CMXCA
SMA6J51CA	51	56.7	62.7	1.0	1.0	82.4	7.28	CMZCA
SMA6J54CA	54	60.0	66.3	1.0	1.0	87.1	6.89	CNECA
SMA6J58CA	58	64.4	71.2	1.0	1.0	93.6	6.41	CNGCA

**SMA CASE - MECHANICAL OUTLINE**



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.004	0.008	0.10	0.20
C	0.006	0.012	0.15	0.30
D	0.078	0.103	1.98	2.62
E	0.188	0.220	4.78	5.59
F	0.090	0.115	2.29	2.92
G	0.050	0.070	1.27	1.78
H	0.157	0.181	3.99	4.60

SMA (REV: R2)

**LEAD CODE:**  
Both leads are Anodes.

R1 (9-April 2018)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

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