


SMA6J6.0CA
THRU
SMA6J58CA



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



www.centrasemi.com

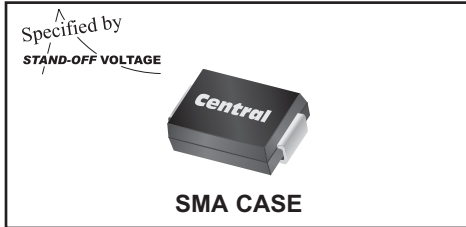
DESCRIPTION:

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 | μA | 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 μs pulse.

R1 (9-April 2018)

**SMA6J6.0CA
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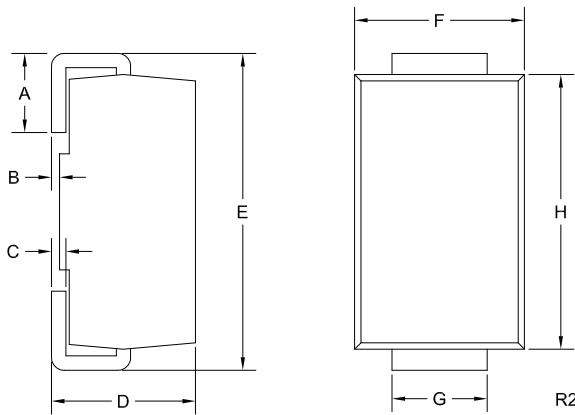
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ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^\circ\text{C}$)

| 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 | μA | 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



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

DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2nd 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

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).

CONTACT US

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