

CAK3-012C
THRU
CAK3-380C



SILICON BI-DIRECTIONAL
GLASS PASSIVATED JUNCTION
TRANSIENT VOLTAGE SUPPRESSORS
3kA, 12 THRU 380 VOLT



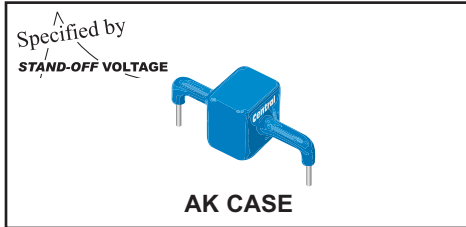
www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CAK3-012C series devices are bi-directional glass passivated junction Transient Voltage Suppressors designed to protect voltage sensitive components from high voltage transients.

THIS DEVICE IS MANUFACTURED WITH A GLASS PASSIVATED CHIP FOR OPTIMUM RELIABILITY.

MARKING CODE: FULL PART NUMBER



FEATURES:

- Very low clamping voltage
- Bi-directional
- ESD protection of data lines in accordance with IEC 61000-4-2

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

Peak Pulse Current (IEC 61000-4-5) (8x20 μs)
ESD Voltage (IEC 61000-4-2, Air)
ESD Voltage (IEC 61000-4-2, Contact)
Operating Junction Temperature
Storage Temperature

SYMBOL


I_{PP} 3
 V_{ESD} 15
 V_{ESD} 8
 T_J -55 to +125
 T_{stg} -55 to +150

UNITS

kA
kV
kV
 $^\circ\text{C}$
 $^\circ\text{C}$

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

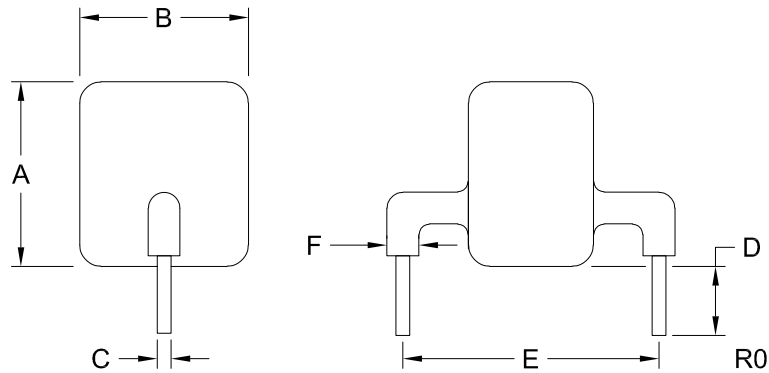
| Type | Maximum Reverse Stand-off Voltage | | Minimum Breakdown Voltage | Test Current | Maximum Reverse Leakage Current | Maximum Clamping Voltage (8x20 μs) |
|-----------|-----------------------------------|-----------|---------------------------|--------------|---------------------------------|--|
| | V_{RMS} | V_{RWM} | $V_{BR} @ I_T$ | I_T | $I_R @ V_{RWM}$ | $V_C @ 3kA$ |
| | V | V | V | mA | μA | V |
| CAK3-012C | 8.5 | 12.8 | 14 | 10 | 20 | 28 |
| CAK3-015C | 11 | 15 | 17 | 10 | 20 | 30 |
| CAK3-020C | 14 | 20 | 22 | 10 | 20 | 40 |
| CAK3-025C | 17 | 25 | 28 | 10 | 20 | 50 |
| CAK3-030C | 21 | 30 | 33 | 10 | 20 | 90 |
| CAK3-042C | 30 | 42 | 47 | 10 | 20 | 100 |
| CAK3-058C | 40 | 58 | 64 | 10 | 20 | 110 |
| CAK3-076C | 54 | 76 | 85 | 10 | 20 | 140 |
| CAK3-380C | 275 | 380 | 401 | 10 | 20 | 520 |

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AK CASE - MECHANICAL OUTLINE



| DIMENSIONS | | | | |
|------------|--------|-------|-------------|-------|
| SYMBOL | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | - | 0.685 | - | 17.40 |
| B | - | 0.626 | - | 15.90 |
| C (DIA) | 0.047 | 0.055 | 1.20 | 1.40 |
| D | 0.256 | 0.295 | 6.50 | 7.50 |
| E | 0.923 | 0.978 | 23.45 | 24.85 |
| F (DIA) | - | 0.157 | - | 4.00 |

AK (REV: R0)

R2 (17-August 2021)

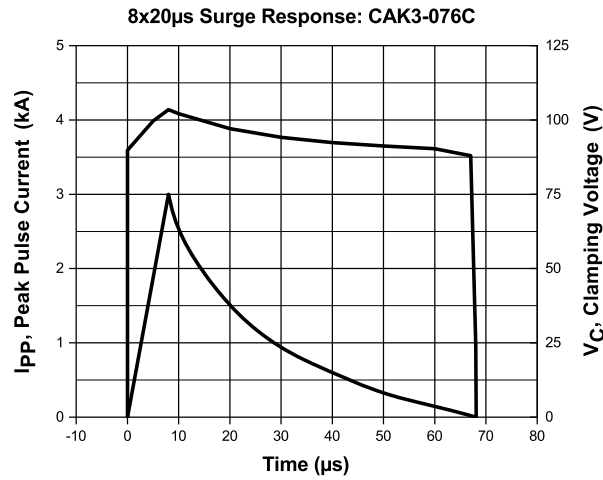
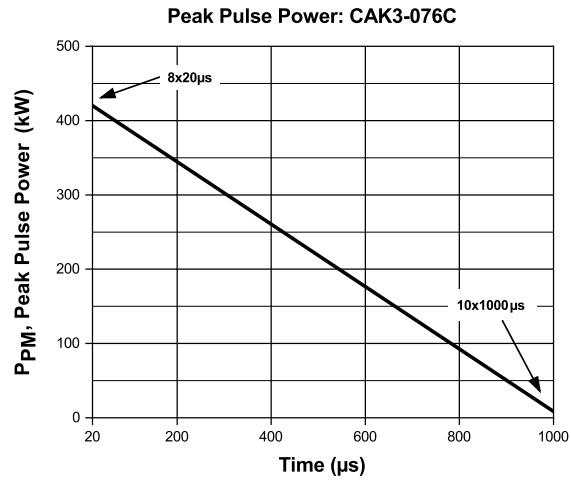
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TYPICAL ELECTRICAL CHARACTERISTICS



R2 (17-August 2021)

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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