

CAK3-012C  
THRU  
CAK3-380C



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



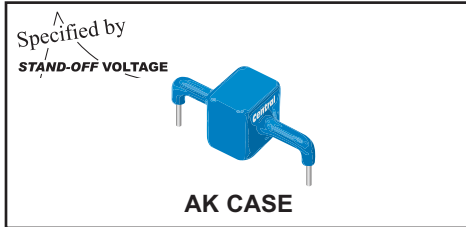
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**DESCRIPTION:**

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 $\mu\text{s}$ )  
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 $\mu\text{s}$ )
	$V_{AC}$	$V_{DC}$	$V_{BR} @ I_T$	$I_T$	$I_R @ V_{DC}$	$V_R @ 3kA$
	V	V	V	mA	$\mu\text{A}$	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

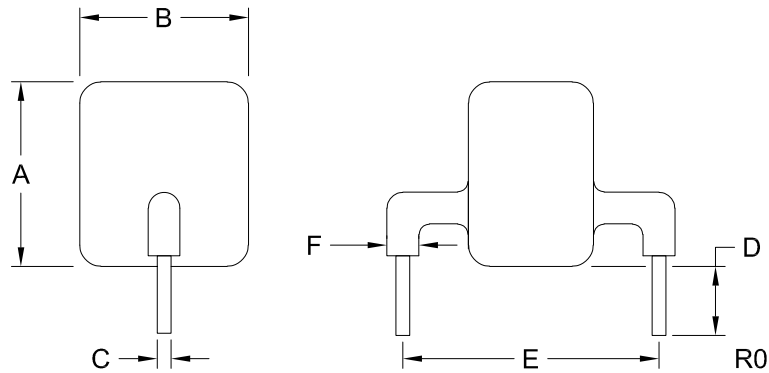
R1 (4-March 2021)

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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)

R1 (4-March 2021)

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