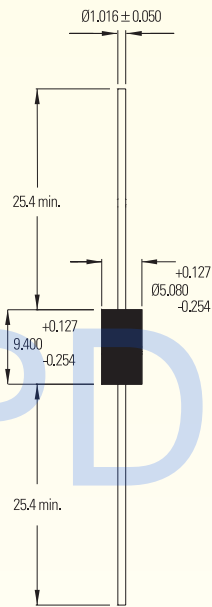


1.5KE6.8 - 1.5KE400CA  
Series



**CRYDOM**

Control over power



All dimensions in mm

### Invisible Protection

*When no problems exist, Crydom TVS Diodes are totally invisible to the circuits they're protecting. But when potentially damaging transients occur, they provide high-speed "clamping" to prevent damage – and then return to their electronically invisible state.*

### 1500 WATT AXIAL TRANSIENT VOLTAGE SUPPRESSORS

Protect sensitive electronics against voltage transients induced by electrostatic discharge (ESD), inductive load switching, and lightning. Ideal for the protection of I/O interfaces, Vcc bus, and other integrated circuits used in telecom, computer, datacom, and industrial electronics.

### FEATURES

- Glass passivated junction
- Stand-off voltage range: 6.8-400 V
- Low clamping factor
- Uni-directional and bi-directional
- 100% surge tested
- UL listed

### MAXIMUM RATINGS

- Peak pulse power (PPk): 1500 watts (10 X 1000  $\mu$ s)
- 5 watt steady state
- Response time: 1 X10<sup>-12</sup>s (theoretical)
- Forward surge rating: 200 A, 8.3 ms half sine wave (uni-directional devices only)
- Operating and storage temperature: -55°C to +175°C

### MECHANICAL CHARACTERISTICS

- Case: Molded plastic over glass passivated junction
- Terminals: Axial leads, solderable per MIL-STD-202 Method 208
- Marking: Cathode band (positive terminal, uni-directional devices only), device code, logo
- Weight: 1.2 grams (approx.)

## Transient Voltage Suppression (TVS) Diodes

### 1.5KE6.8 – 1.5KE400CA Series

PART NUMBER (UNI)	PART NUMBER (BI)	REVERSE STAND-OFF VOLTAGE Vr (V)	BREAKDOWN VOLTAGE VBR (V) @ Ir			MAXIMUM REVERSE LEAKAGE Ir @ Vr (µA)	MAXIMUM CLAMPING VOLTAGE Vc @ IPP (V)	MAXIMUM PEAK PULSE CURRENT IPP (A)	MAX. VOLTAGE TEMPERATURE VARIATION OF VBR (%/°C)
			MIN.	MAX.	(mA)				
*1.5KE6.8	*1.5KE6.8C	5.5	6.12	7.48	10.0	1000.0	10.8	139.0	0.057
*1.5KE6.8A	*1.5KE6.8CA	5.8	6.45	7.14	10.0	1000.0	10.5	143.0	0.057
1.5KE7.5	*1.5KE7.5C	6.05	6.75	8.25	10.0	500.0	11.7	128.0	0.061
1.5KE7.5A	*1.5KE7.5CA	6.4	7.13	7.88	10.0	500.0	11.3	132.0	0.061
1.5KE8.2	1.5KE8.2C	6.63	7.38	9.02	10.0	200.0	12.5	120.0	0.065
1.5KE8.2A	1.5KE8.2CA	7.02	7.79	8.61	10.0	200.0	12.1	124.0	0.065
1.5KE9.1	1.5KE9.1C	7.37	8.19	10.0	1.0	50.0	13.8	109.0	0.068
1.5KE9.1A	1.5KE9.1CA	7.78	8.60	9.55	1.0	50.0	13.4	112.0	0.068
1.5KE10	1.5KE10C	8.1	9.00	11.0	1.0	10.0	15.0	100.0	0.073
1.5KE10A	1.5KE10CA	8.55	9.5	10.5	1.0	10.0	14.5	103.0	0.073
1.5KE11	1.5KE11C	8.92	9.9	12.1	1.0	5.0	16.2	93.0	0.075
1.5KE11A	1.5KE11CA	9.4	10.5	11.6	1.0	5.0	15.6	96.0	0.075
1.5KE12	1.5KE12C	9.72	10.8	13.2	1.0	5.0	17.3	87.0	0.078
1.5KE12A	1.5KE12CA	10.2	11.4	12.6	1.0	5.0	16.7	90.0	0.078
1.5KE13	1.5KE13C	10.5	11.7	14.3	1.0	5.0	19.0	79.0	0.081
1.5KE13A	1.5KE13CA	11.1	12.4	13.7	1.0	5.0	18.2	82.0	0.081
1.5KE15	1.5KE15C	12.1	13.5	16.5	1.0	5.0	22.0	68.0	0.084
1.5KE15A	1.5KE15CA	12.8	14.3	15.8	1.0	5.0	21.2	71.0	0.084
1.5KE16	*1.5KE16C	12.9	14.4	17.6	1.0	5.0	23.5	64.0	0.086
1.5KE16A	*1.5KE16CA	13.6	15.2	16.8	1.0	5.0	22.5	67.0	0.086
*1.5KE18	*1.5KE18C	14.5	16.2	19.8	1.0	5.0	26.5	56.5	0.088
*1.5KE18A	*1.5KE18CA	15.3	17.1	18.9	1.0	5.0	25.2	59.5	0.088
1.5KE20	1.5KE20C	16.2	18.0	22.0	1.0	5.0	29.1	51.5	0.090
1.5KE20A	1.5KE20CA	17.1	19.0	21.0	1.0	5.0	27.7	54.0	0.090
1.5KE22	1.5KE22C	17.8	19.8	24.2	1.0	5.0	31.9	47.0	0.092
1.5KE22A	1.5KE22CA	18.8	20.9	23.1	1.0	5.0	30.6	49.0	0.092
1.5KE24	1.5KE24C	19.4	21.6	26.4	1.0	5.0	34.7	43.0	0.094
1.5KE24A	1.5KE24CA	20.5	22.8	25.2	1.0	5.0	33.2	45.0	0.094
*1.5KE27	1.5KE27C	21.8	24.3	29.7	1.0	5.0	39.1	38.5	0.096
*1.5KE27A	1.5KE27CA	23.1	25.7	28.4	1.0	5.0	37.5	40.0	0.096
*1.5KE30	1.5KE30C	24.3	27.0	33.0	1.0	5.0	43.5	34.5	0.097
*1.5KE30A	1.5KE30CA	25.6	28.5	31.5	1.0	5.0	41.4	36.0	0.097
1.5KE33	1.5KE33C	26.8	29.7	36.3	1.0	5.0	47.7	31.5	0.098
1.5KE33A	1.5KE33CA	28.2	31.4	34.7	1.0	5.0	45.7	33.0	0.098
1.5KE36	1.5KE36C	29.1	32.4	39.6	1.0	5.0	52.0	29.0	0.099
1.5KE36A	1.5KE36CA	30.8	34.2	37.8	1.0	5.0	49.9	30.0	0.099
1.5KE39	1.5KE39C	31.6	35.1	42.9	1.0	5.0	56.4	26.5	0.100
1.5KE39A	1.5KE39CA	33.3	37.1	41.0	1.0	5.0	53.9	28.0	0.100
1.5KE43	1.5KE43C	34.8	38.7	47.3	1.0	5.0	61.9	24.0	0.101
1.5KE43A	1.5KE43CA	36.8	40.9	45.2	1.0	5.0	59.3	25.3	0.101
1.5KE47	*1.5KE47C	38.1	42.3	51.7	1.0	5.0	67.8	22.2	0.101
1.5KE47A	*1.5KE47CA	40.2	44.7	49.4	1.0	5.0	64.8	23.2	0.101

\*Preferred voltages

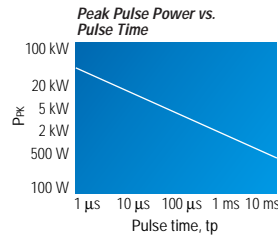
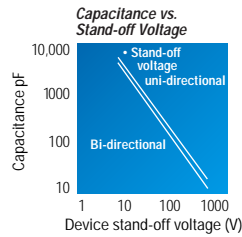
Note: Suffix "C" denotes bi-directional device. Suffix "A" denotes 5% tolerance device. No suffix denotes 10% tolerance device. For bi-directional devices having Vr of 10 V and under the Ir limit is doubled. Vf = 3.5 V max. for devices of nominal VBR < 200 V, and Vf = 5.0 V max. for devices of nominal VBR > 200 V. If = 50 A, 300 µs square wave. Electrical specifications @ 25°C.

# 1.5KE6.8 – 1.5KE400CA Series

PART NUMBER (UNI)	PART NUMBER (BI)	REVERSE STAND-OFF VOLTAGE Vr (V)	BREAKDOWN VOLTAGE Vbr (V) @ It			MAXIMUM REVERSE LEAKAGE Ir @ Vr (µA)	MAXIMUM CLAMPING VOLTAGE Vc @ IPP (V)	MAXIMUM PEAK PULSE CURRENT IPP (A)	MAX. VOLTAGE TEMPERATURE VARIATION OF VBR (%/°C)
			MIN.	MAX.	(mA)				
1.5KE51	1.5KE51C	41.3	45.9	56.1	1.0	5.0	73.5	20.4	0.102
1.5KE51A	1.5KE51CA	43.6	48.5	53.6	1.0	5.0	70.1	21.4	0.102
1.5KE56	1.5KE56C	45.4	50.4	61.6	1.0	5.0	80.5	18.6	0.103
1.5KE56A	1.5KE56CA	47.8	53.2	58.8	1.0	5.0	77.0	19.5	0.103
1.5KE62	1.5KE62C	50.2	55.8	68.2	1.0	5.0	89.0	16.9	0.104
1.5KE62A	1.5KE62CA	53.0	58.9	65.1	1.0	5.0	85.0	17.7	0.104
1.5KE68	1.5KE68C	55.1	61.2	74.8	1.0	5.0	98.0	15.3	0.104
1.5KE68A	1.5KE68CA	58.1	64.6	71.4	1.0	5.0	92.0	16.3	0.104
1.5KE75	1.5KE75C	60.7	67.5	82.5	1.0	5.0	108.0	13.9	0.105
1.5KE75A	1.5KE75CA	64.1	71.3	78.8	1.0	5.0	103.0	14.6	0.105
1.5KE82	1.5KE82C	66.4	73.8	90.2	1.0	5.0	118.0	12.7	0.105
1.5KE82A	1.5KE82CA	70.1	77.9	86.1	1.0	5.0	113.0	13.3	0.105
1.5KE91	*1.5KE91C	73.7	81.9	100.0	1.0	5.0	131.0	11.4	0.106
1.5KE91A	*1.5KE91CA	77.8	86.5	95.5	1.0	5.0	125.0	12.0	0.106
1.5KE100	1.5KE100C	81.0	90.0	110.0	1.0	5.0	144.0	10.4	0.106
1.5KE100A	1.5KE100CA	85.5	95.0	105.0	1.0	5.0	137.0	11.0	0.106
1.5KE110	1.5KE110C	89.2	99.0	121.0	1.0	5.0	158.0	9.5	0.107
1.5KE110A	1.5KE110CA	94.0	105.0	116.0	1.0	5.0	152.0	9.9	0.107
1.5KE120	1.5KE120C	97.2	108.0	132.0	1.0	5.0	173.0	8.7	0.107
1.5KE120A	1.5KE120CA	102.0	114.0	126.0	1.0	5.0	165.0	9.1	0.107
1.5KE130	1.5KE130C	105.0	117.0	143.0	1.0	5.0	187.0	8.0	0.107
1.5KE130A	1.5KE130CA	111.0	124.0	137.0	1.0	5.0	179.0	8.4	0.107
1.5KE150	1.5KE150C	121.0	135.0	165.0	1.0	5.0	215.0	7.0	0.108
1.5KE150A	1.5KE150CA	128.0	143.0	158.0	1.0	5.0	207.0	7.2	0.108
1.5KE160	1.5KE160C	130.0	144.0	176.0	1.0	5.0	230.0	6.5	0.108
1.5KE160A	1.5KE160CA	136.0	152.0	168.0	1.0	5.0	219.0	6.8	0.108
1.5KE170	1.5KE170C	138.0	153.0	187.0	1.0	5.0	244.0	6.2	0.108
1.5KE170A	1.5KE170CA	145.0	162.0	179.0	1.0	5.0	234.0	6.4	0.108
1.5KE180	1.5KE180C	146.0	162.0	198.0	1.0	5.0	258.0	5.8	0.108
1.5KE180A	1.5KE180CA	154.0	171.0	189.0	1.0	5.0	246.0	6.1	0.108
1.5KE200	*1.5KE200C	162.0	180.0	220.0	1.0	5.0	287.0	5.2	0.108
1.5KE200A	*1.5KE200CA	171.0	190.0	210.0	1.0	5.0	274.0	5.5	0.108
1.5KE220	1.5KE220C	175.0	198.0	242.0	1.0	5.0	344.0	4.3	0.108
1.5KE220A	1.5KE220CA	185.0	209.0	231.0	1.0	5.0	328.0	4.6	0.108
1.5KE250	1.5KE250C	202.0	225.0	275.0	1.0	5.0	360.0	5.0	0.110
1.5KE250A	1.5KE250CA	214.0	237.0	263.0	1.0	5.0	344.0	4.4	0.110
1.5KE300	*1.5KE300C	243.0	270.0	330.0	1.0	5.0	430.0	3.5	0.110
1.5KE300A	*1.5KE300CA	256.0	285.0	315.0	1.0	5.0	414.0	3.6	0.110
1.5KE350	1.5KE350C	284.0	315.0	385.0	1.0	5.0	504.0	3.0	0.110
1.5KE350A	1.5KE350CA	300.0	332.0	368.0	1.0	5.0	482.0	3.1	0.110
1.5KE400	1.5KE400C	324.0	360.0	440.0	1.0	5.0	574.0	2.6	0.110
1.5KE400A	1.5KE400CA	342.0	380.0	420.0	1.0	5.0	548.0	2.8	0.110



## 1.5KE6.8 – 1.5KE400CA Series



### Specify Crydom

...for these industry-leading components and products:

- **Solid State Relays**
  - Printed Circuit Board Mount
  - Panel Mount
  - DIN Rail Mount
- **Power Cubes**
- **I/O Modules**
- **Transient Voltage Suppression Components**
  - TVS Diodes
  - Thyristor Suppression Devices
  - Gas Discharge Tubes (GDT)
  - Zeners/Studs
  - Hybrid Arrester Devices

### Ordering Information

For recommended applications and more information contact:

Sales: 1-877-502-5500

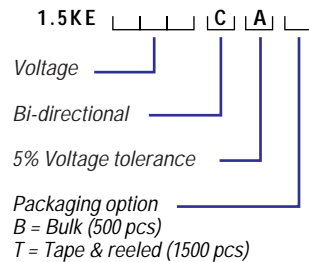
Technical support: 1-877-702-7700

Corporate Headquarters: 1-619-715-7200

Fax: 1-619-715-7280

E-mail: sales@crydom.com

Website: www.crydom.com



FASTFAX Product Info: 1-888-267-9191

### About Crydom

Over the years Crydom has become the supplier of choice for advanced, high-quality products like those featured here. It's the result of our teams of design and production engineers – material, production control, and quality assurance experts, and more – working seamlessly together to create, produce, and deliver superior components and products that satisfy the most demanding environmental and performance requirements. We focus on timely delivery and competitive pricing aimed at meeting your needs and helping you succeed in today's fast-paced, fast-changing global markets.

### Crydom

9525 Chesapeake Drive  
San Diego, CA 92123 USA



©1998 Crydom  
Specifications subject to change without notice.