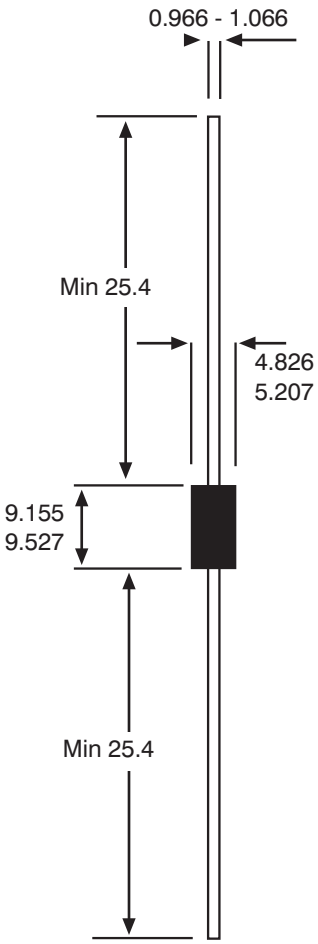
1500 WATT AXIAL TRANSIENT VOLTAGE SUPPRESSORS

Protect sensitive electronics against voltage transients induced by 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.



All dimensions in mm

FEATURES

- Breakdown voltage range 6.8 to 440 Volts
- Uni-directional and Bi-directional
- Glass passivated junction
- Low clamping factor
- 100% surge tested
- UL recognised

MAXIMUM RATING

- Peak Pulse Power (Ppk): 1500 Watts (10 x 1000µs)@25°C (see diagram on page 6 for wave form)
- 5 watt steady state
- Response time: 1 x 10^{-12} seconds (theoretical)
- Forward surge rating: 200 Amps, 8.3ms half sine wave, (uni-directional devices only)
- Operating & storage temperature: -55°C to +150°C

MECHANICAL CHARACTERISTICS

- Case: DO-201AD: Moulded plastic over glass passivated junction
- Terminals: Axial leads, solderable per MIL-STD-202 Method 208
- Solderable leads = 230°C for 10 seconds (1.59mm from case)
- Marking: cathode band, (positive terminal, uni-directional devices only), device code, logo
- Weight: 1.5 grammes (approx)

Figure 1 - Capacitance vs. Stand-off Voltage

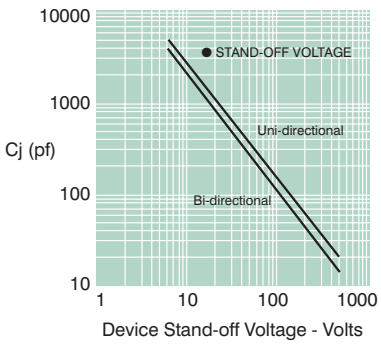
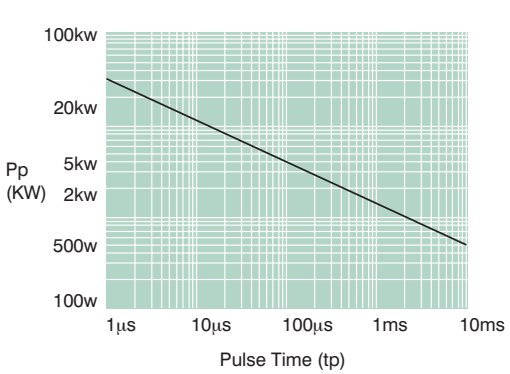


Figure 2 - Peak Pulse Power vs. Pulse Time



ORDERING INFORMATION

1.5KE | | | | C | A | | |

- *Voltage*
- *Bi-Directional*
- *5% Voltage Tolerance*
- *Packaging Option*

B = Bulk (500 pcs)
T = Tape and reeled (1500 pcs)

ELECTRICAL SPECIFICATION @ Tamb 25°C

Part Number (Uni)	Part Number (Bi)	Reverse Stand off Voltage V_R (Volts)	Breakdown Voltage V_{BR} (Volts) @ I_T			Maximum Reverse Leakage I_R @ V_R (µA)	Maximum Clamping Voltage V_C @ I_{PP} (Volts)	Maximum Peak Pulse Current I_{PP} (A)	Max Voltage Temperature Variation of V_{BR} (%/°C)
			MIN	MAX	mA				
1.5KE6.8*	1.5KE6.8C*	5.50	6.12	7.48	10.0	1000.0	10.8	139.0	0.057
1.5KE6.8A*	1.5KE6.8CA*	5.80	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	6.40	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	10.00	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	8.10	9.00	11.00	1.0	10.0	15.0	100.0	0.073
1.5KE10A	1.5KE10CA	8.55	9.50	10.50	1.0	10.0	14.5	103.0	0.073
1.5KE11	1.5KE11C	8.92	9.90	12.10	1.0	5.0	16.2	93.0	0.075
1.5KE11A	1.5KE11CA	9.40	10.50	11.60	1.0	5.0	15.6	96.0	0.075
1.5KE12	1.5KE12C	9.72	10.80	13.20	1.0	5.0	17.3	87.0	0.078
1.5KE12A	1.5KE12CA	10.20	11.40	12.60	1.0	5.0	16.7	90.0	0.078
1.5KE13	1.5KE13C	10.50	11.70	14.30	1.0	5.0	19.0	79.0	0.081
1.5KE13A	1.5KE13CA	11.10	12.40	13.70	1.0	5.0	18.2	82.0	0.081
1.5KE15	1.5KE15C*	12.10	13.50	16.50	1.0	5.0	22.0	68.0	0.084
1.5KE15A	1.5KE15CA*	12.80	14.30	15.80	1.0	5.0	21.2	71.0	0.084
1.5KE16	1.5KE16C	12.90	14.40	17.60	1.0	5.0	23.5	64.0	0.086
1.5KE16A	1.5KE16CA	13.60	15.20	16.80	1.0	5.0	22.5	67.0	0.086
1.5KE18*	1.5KE18C*	14.50	16.20	19.80	1.0	5.0	26.5	56.5	0.088
1.5KE18A*	1.5KE18CA*	15.30	17.10	18.90	1.0	5.0	25.2	59.5	0.088
1.5KE20*	1.5KE20C	16.20	18.00	22.00	1.0	5.0	29.1	51.5	0.090
1.5KE20A*	1.5KE20CA	17.10	19.00	21.00	1.0	5.0	27.7	54.0	0.090
1.5KE22	1.5KE22C	17.80	19.80	24.20	1.0	5.0	31.9	47.0	0.092
1.5KE22A	1.5KE22CA	18.80	20.90	23.10	1.0	5.0	30.6	49.0	0.092
1.5KE24*	1.5KE24C*	19.40	21.60	26.40	1.0	5.0	34.7	43.0	0.094
1.5KE24A*	1.5KE24CA*	20.50	22.80	25.20	1.0	5.0	33.2	45.0	0.094
1.5KE27*	1.5KE27C*	21.80	24.30	29.70	1.0	5.0	39.1	38.5	0.096
1.5KE27A*	1.5KE27CA*	23.10	25.70	28.40	1.0	5.0	37.5	40.0	0.096
1.5KE30	1.5KE30C	24.30	27.00	33.00	1.0	5.0	43.5	34.5	0.097
1.5KE30A	1.5KE30CA	25.60	28.50	31.50	1.0	5.0	41.4	36.0	0.097
1.5KE33*	1.5KE33C	26.80	29.70	36.30	1.0	5.0	47.7	31.5	0.098
1.5KE33A*	1.5KE33CA	28.20	31.40	34.70	1.0	5.0	45.7	33.0	0.098
1.5KE36	1.5KE36C	29.10	32.40	39.60	1.0	5.0	52.0	29.0	0.099
1.5KE36A	1.5KE36CA	30.80	34.20	37.80	1.0	5.0	49.9	30.0	0.099
1.5KE39*	1.5KE39C	31.60	35.10	42.90	1.0	5.0	56.4	26.5	0.100
1.5KE39A*	1.5KE39CA	33.30	37.10	41.00	1.0	5.0	53.9	28.0	0.100
1.5KE43	1.5KE43C	34.80	38.70	47.30	1.0	5.0	61.9	24.0	0.101
1.5KE43A	1.5KE43CA	36.80	40.90	45.20	1.0	5.0	59.3	25.3	0.101
1.5KE47	1.5KE47C	38.10	42.30	51.70	1.0	5.0	67.8	22.2	0.101
1.5KE47A	1.5KE47CA	40.20	44.70	49.40	1.0	5.0	64.8	23.2	0.101
1.5KE51*	1.5KE51C	41.30	45.90	56.10	1.0	5.0	73.5	20.4	0.102
1.5KE51A	1.5KE51CA	43.60	48.50	53.60	1.0	5.0	70.1	21.4	0.102

Suffix 'C' denotes Bi-directional device. Suffix 'A' denotes 5% tolerance device, no suffix denotes a 10% tolerance device.

1. For Bi-directional devices having V_R of 10 volts and below, the I_R limit is doubled.
2. V_F = 3.5 Volts max. for devices of V_R <100v, and V_F = 5.0 Volts max for devices of V_R >100V. I_F = 100A, 300 µS square wave.

* Preferred voltages.

ELECTRICAL SPECIFICATION @ Tamb 25°C

Part Number (Uni)	Part Number (Bi)	Reverse Stand off Voltage V_R (Volts)	Breakdown Voltage V_{BR} (Volts) @ I_T			Maximum Reverse Leakage I_R @ V_R (µA)	Maximum Clamping Voltage V_C @ I_{PP} (Volts)	Maximum Peak Pulse Current I_{PP} (A)	Max Voltage Temperature Variation of V_{BR} (%/°C)
			MIN	MAX	(mA)				
1.5KE56	1.5KE56C	45.4	50.40	61.60	1.0	5.0	80.5	18.6	0.103
1.5KE56A	1.5KE56CA	47.8	53.20	58.80	1.0	5.0	77.0	19.5	0.103
1.5KE62	1.5KE62C	50.2	55.80	68.20	1.0	5.0	89.0	16.9	0.104
1.5KE62A	1.5KE62CA	53.0	58.90	65.10	1.0	5.0	85.0	17.7	0.104
1.5KE68	1.5KE68C	55.1	61.20	74.80	1.0	5.0	98.0	15.3	0.104
1.5KE68A	1.5KE68CA	58.1	64.60	71.40	1.0	5.0	92.0	16.3	0.104
1.5KE75	1.5KE75C*	60.7	67.50	82.50	1.0	5.0	108.0	13.9	0.105
1.5KE75A	1.5KE75CA*	64.1	71.30	78.80	1.0	5.0	103.0	14.6	0.105
1.5KE82	1.5KE82C	66.4	73.80	90.20	1.0	5.0	118.0	12.7	0.105
1.5KE82A	1.5KE82CA	70.1	77.90	86.10	1.0	5.0	113.0	13.3	0.105
1.5KE91	1.5KE91C	73.7	81.90	100.00	1.0	5.0	131.0	11.4	0.106
1.5KE91A	1.5KE91CA	77.8	86.50	95.50	1.0	5.0	125.0	12.0	0.106
1.5KE100	1.5KE100C	81.0	90.00	110.00	1.0	5.0	144.0	10.4	0.106
1.5KE100A	1.5KE100CA	85.5	95.00	105.00	1.0	5.0	137.0	11.0	0.106
1.5KE110	1.5KE110C	89.2	99.00	121.00	1.0	5.0	158.0	9.5	0.107
1.5KE110A	1.5KE110CA	94.0	105.00	116.00	1.0	5.0	152.0	9.9	0.107
1.5KE120*	1.5KE120C*	97.2	108.00	132.00	1.0	5.0	173.0	8.7	0.107
1.5KE120A*	1.5KE120CA*	102.0	114.00	126.00	1.0	5.0	165.0	9.1	0.107
1.5KE130	1.5KE130C	105.0	117.00	143.00	1.0	5.0	187.0	8.0	0.107
1.5KE130A	1.5KE130CA	111.0	124.00	137.00	1.0	5.0	179.0	8.4	0.107
1.5KE150	1.5KE150C	121.0	135.00	165.00	1.0	5.0	215.0	7.0	0.108
1.5KE150A	1.5KE150CA	128.0	143.00	158.00	1.0	5.0	207.0	7.2	0.108
1.5KE160	1.5KE160CC	130.0	144.00	176.00	1.0	5.0	230.0	6.5	0.108
1.5KE160A	1.5KE160CA	136.0	152.00	168.00	1.0	5.0	219.0	6.8	0.108
1.5KE170	1.5KE170C	138.0	153.00	187.00	1.0	5.0	244.0	6.2	0.108
1.5KE170A	1.5KE170CA	145.0	162.00	179.00	1.0	5.0	234.0	6.4	0.108
1.5KE180	1.5KE180C	146.0	162.00	198.00	1.0	5.0	258.0	5.8	0.108
1.5KE180A	1.5KE180CA	154.0	171.00	189.00	1.0	5.0	246.0	6.1	0.108
1.5KE200*	1.5KE200C*	162.0	180.00	220.00	1.0	5.0	287.0	5.2	0.108
1.5KE200A*	1.5KE200CA*	171.0	190.00	210.00	1.0	5.0	274.0	5.5	0.108
1.5KE220	1.5KE220C	175.0	198.00	242.00	1.0	5.0	344.0	4.3	0.108
1.5KE220A	1.5KE220CA	185.0	209.00	231.00	1.0	5.0	328.0	4.6	0.108
1.5KE250	1.5KE250C	202.0	225.00	275.00	1.0	5.0	360.0	5.0	0.110
1.5KE250A	1.5KE250CA	214.0	237.00	263.00	1.0	5.0	344.0	4.4	0.110
1.5KE300	1.5KE300C*	243.0	270.00	330.00	1.0	5.0	430.0	3.5	0.110
1.5KE300A	1.5KE300CA*	256.0	285.00	315.00	1.0	5.0	414.0	3.6	0.110
1.5KE350*	1.5KE350C	284.0	315.00	385.00	1.0	5.0	504.0	3.0	0.110
1.5KE350A*	1.5KE350CA	300.0	332.00	368.00	1.0	5.0	482.0	3.1	0.110
1.5KE400	1.5KE400C*	324.0	360.00	440.00	1.0	5.0	574.0	2.6	0.110
1.5KE400A	1.5KE400CA*	342.0	380.00	420.00	1.0	5.0	548.0	2.8	0.110
1.5KE440	1.5KE440C	356.0	396.00	484.00	1.0	5.0	631.0	2.4	0.110
1.5KE440A	1.5KE440CA	376.0	418.00	462.00	1.0	5.0	602.0	2.5	0.110

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