

TM

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Transient Suppressor
Devices

SECTION 3



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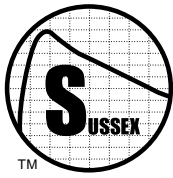
SEMICONDUCTOR, INC.

12251 TOWNE LAKE DRIVE, FORT MYERS, FLORIDA, 33913 • TEL: (941) 768-6800 • FAX: (941) 768-6868

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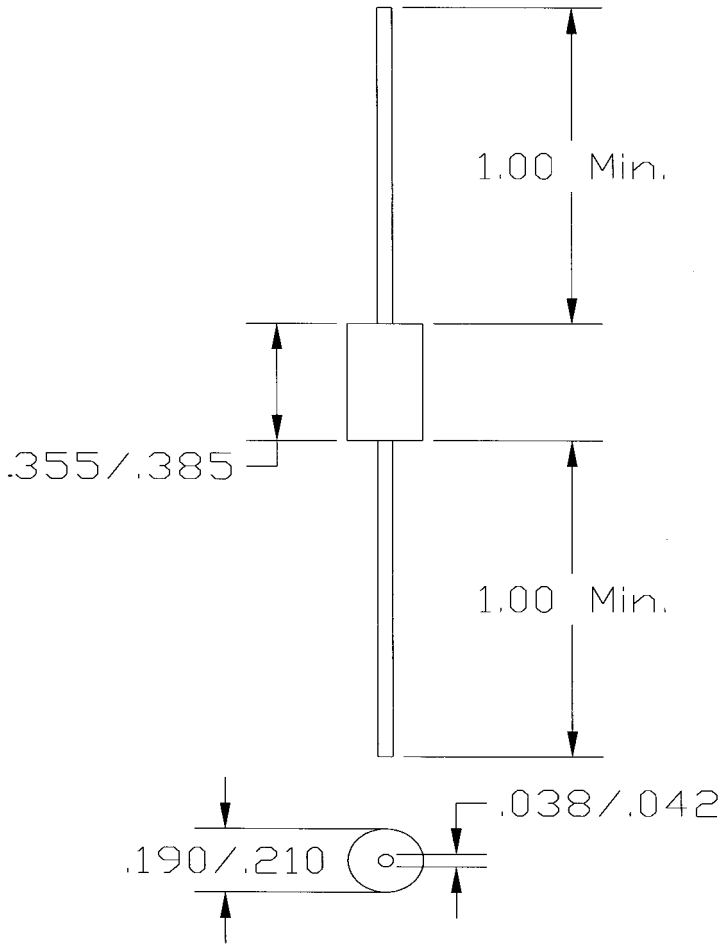
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**P6KE SERIES 600 WATT
TRANSIENT SUPPRESSORS**

P6KE SERIES TRANSIENT SUPPRESSORS

VOLTAGES - 6.8 TO 440 VOLTS

600 WATT MAXIMUM POWER DISSIPATION



All Dimensions In Inches

P6KE SERIES DEVICE SPECIFICATIONS

- ◆ Built Using Sussex Glass Passivated Dies
- ◆ Each Device Individually Inspected
- ◆ Molded Epoxy Package
- ◆ Operating Temperature: -55 to 175°C
- ◆ Storage Temperature: -55 to 175°C
- ◆ Marked With Sussex Logo, Part Number, and Cathode Band on Unipolar Types
- ◆ Solvent Resistant Marking
- ◆ Plated Leads, Solderable Per MIL-STD-750

CUSTOM ORDERING SPECIFIER

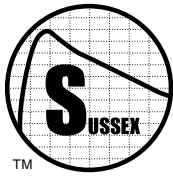
DIE SPECIFICATIONS

P6KE

DEVICE PART NUMBER

REVERSE BREAKDOWN VOLTAGE (V_{BR})

- ◆ BLANK INDICATES UNIPOLAR DEVICE $\pm 10\%$ ON V_{BR}
- ◆ A INDICATES UNIPOLAR DEVICE $\pm 5\%$ ON V_{BR}
- ◆ C INDICATES BIPOLAR DEVICE $\pm 10\%$ ON V_{BR}
- ◆ CA INDICATES BIPOLAR DEVICE $\pm 5\%$ ON V_{BR}



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P6KE SERIES 600 WATT TRANSIENT SUPPRESSOR SPECIFICATIONS CONTINUED

TABLE 4A - P6KE SERIES 600 WATT TRANSIENT SUPPRESSOR ELECTRICAL SPECIFICATIONS (NOTE 1)

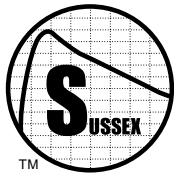
INDUSTRY STANDARD PART NUMBERS 600 WATT P6KE SERIES	STANDOFF VOLTAGE (V _{SO}) Volts	MAX. REVERSE LEAKAGE (I _R)@V _{SO} (NOTE 2) µA	REVERSE BREAKDOWN VOLTAGE (V _{BR}) @ I _T		TEST CURRENT (I _T) mA	MAX. CLAMPING VOLTAGE (V _{CL}) @ PEAK PULSE CURRENT (I _{PP}) (NOTE 3)		MAX. TEMP. COEFFICIENT OF V _{BR} (%/°C)
			MIN. Volts	MAX. Volts		V _{CL} Volts	I _{PP} Amps	
P6KE6.8	5.50	1000	6.12	7.48	10	10.8	58.0	0.057
P6KE6.8A	5.80	1000	6.45	7.14	10	10.5	60.0	0.057
P6KE7.5	6.05	500	6.75	8.25	10	11.7	53.0	0.061
P6KE7.5A	6.40	500	7.13	7.88	10	11.3	55.0	0.061
P6KE8.2	6.63	200	7.38	9.02	10	12.5	50.0	0.065
P6KE8.2A	7.02	200	7.79	8.61	10	12.1	52.0	0.065
P6KE9.1	7.37	50	8.19	10.00	1	13.8	45.0	0.068
P6KE9.1A	7.78	50	8.65	9.55	1	13.4	47.0	0.068
P6KE10	8.10	10	9.00	11.00	1	15.0	42.0	0.073
P6KE10A	8.55	10	9.50	10.50	1	14.5	43.0	0.073
P6KE11	8.92	5.0	9.90	12.10	1	16.2	38.0	0.075
P6KE11A	9.40	5.0	10.50	11.60	1	15.6	40.0	0.075
P6KE12	9.72	5.0	10.80	13.20	1	17.3	36.0	0.078
P6KE12A	10.20	5.0	11.40	12.60	1	16.7	37.0	0.078
P6KE13	10.50	5.0	11.70	14.30	1	19.0	33.0	0.061
P6KE13A	11.10	5.0	12.40	13.70	1	18.2	34.0	0.081
P6KE15	12.10	5.0	13.50	16.50	1	22.0	28.0	0.084
P6KE15A	12.80	5.0	14.30	15.80	1	21.2	29.0	0.084
P6KE16	12.90	5.0	14.40	17.60	1	23.5	26.0	0.086
P6KE16A	13.60	5.0	15.20	16.80	1	22.5	28.0	0.086
P6KE18	14.50	5.0	16.20	19.80	1	26.5	23.0	0.088
P6KE18A	15.30	5.0	17.10	18.90	1	25.2	25.0	0.088
P6KE20	16.20	5.0	18.00	22.00	1	29.1	21.0	0.090
P6KE20A	17.10	5.0	19.00	21.00	1	27.7	22.0	0.090
P6KE22	17.80	5.0	19.80	24.20	1	31.9	19.0	0.092
P6KE22A	18.80	5.0	20.90	23.10	1	30.6	20.0	0.092
P6KE24	19.40	5.0	21.60	26.40	1	34.7	18.0	0.091
P6KE24A	20.50	5.0	22.80	25.20	1	33.2	19.0	0.094
P6KE27	21.80	5.0	24.30	29.70	1	39.0	16.0	0.096
P6KE27A	23.10	5.0	25.70	28.40	1	37.5	16.8	0.096
P6KE30	24.30	5.0	27.00	33.00	1	43.5	14.0	0.097
P6KE30A	25.60	5.0	28.50	31.50	1	41.4	15.0	0.097
P6KE33	26.80	5.0	29.70	36.30	1	47.7	13.0	0.098
P6KE33A	28.20	5.0	31.40	34.70	1	45.7	13.8	0.098
P6KE36	29.10	5.0	32.40	39.60	1	52.0	12.0	0.099
P6KE36A	30.80	5.0	34.20	37.80	1	49.9	12.6	0.099
P6KE39	31.60	5.0	35.10	42.90	1	56.4	11.1	0.100
P6KE39A	33.30	5.0	37.10	41.00	1	53.9	11.6	0.100
P6KE43	34.80	5.0	38.70	47.30	1	61.9	10.0	0.101
P6KE43A	36.80	5.0	40.90	45.20	1	59.3	10.6	0.101
P6KE47	38.10	5.0	42.30	51.70	1	67.8	9.2	0.101
P6KE47A	40.20	5.0	44.70	49.40	1	64.8	9.7	0.101
P6KE51	41.30	5.0	45.90	56.10	1	73.5	8.5	0.102

THIS TABLE CONTINUES

NOTES

NOTE 1: ♦ ELECTRICAL CHARACTERISTICS ARE AT A JUNCTION TEMPERATURE (T_J) OF 25°C
NOTE 2: ♦ FOR BIPOLAR DEVICES WITH A V_{BR} OF 10 VOLTS OR LESS, THE I_R LIMIT IS DOUBLED

NOTE 3: ♦ SURGE CURRENT WAVEFORM SHOWN IN FIGURE 2A ON PAGE 3-6
 ♦ PEAK PULSE POWER DERATING SHOWN IN FIGURE 3A ON PAGE 3-6



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P6KE SERIES 600 WATT TRANSIENT SUPPRESSOR SPECIFICATIONS CONTINUED

TABLE 4A - P6KE SERIES 600 WATT TRANSIENT SUPPRESSOR ELECTRICAL SPECIFICATIONS (NOTE 1)

INDUSTRY STANDARD PART NUMBERS 600 WATT P6KE SERIES	STANDOFF VOLTAGE (V _{SO}) Volts	MAX. REVERSE LEAKAGE (I _R)@V _{SO} (NOTE 2) µA	REVERSE BREAKDOWN VOLTAGE (V _{BR}) @ I _T		TEST CURRENT (I _T) mA	MAX. CLAMPING VOLTAGE (V _{CL}) @ PEAK PULSE CURRENT (I _{PP}) (NOTE 3)		MAX. TEMP. COEFFICIENT OF VBR (%/°C)
			MIN. Volts	MAX. Volts		V _{CL} Volts	I _{PP} Amps	
			P6KE51A	43.60		5.0	48.50	
P6KE56	45.40	5.0	50.40	61.60	1	80.5	7.8	0.103
P6KE56A	47.80	5.0	53.20	58.80	1	77.0	8.1	0.103
P6KE62	50.20	5.0	55.80	68.20	1	89.0	7.0	0.104
P6KE62A	53.00	5.0	58.90	65.10	1	85.0	7.4	0.104
P6KE68	55.10	5.0	61.20	74.80	1	96.0	6.4	0.104
P6KE68A	58.10	5.0	64.60	71.40	1	92.0	6.8	0.104
P6KE75	60.70	5.0	67.50	82.50	1	108.0	5.8	0.105
P6KE75A	64.10	5.0	71.30	78.80	1	103.0	6.1	0.105
P6KE82	66.40	5.0	73.80	90.20	1	118.0	5.3	0.105
P6KE82A	70.10	5.0	77.90	86.10	1	113.0	5.5	0.105
P6KE91	73.70	5.0	81.90	100.00	1	131.0	4.8	0.106
P6KE91A	77.80	5.0	86.50	95.50	1	125.0	5.0	0.106
P6KE100	81.00	5.0	90.00	110.00	1	144.0	4.3	0.106
P6KE100A	85.50	5.0	95.00	105.00	1	137.0	4.5	0.106
P6KE110	89.20	5.0	99.00	121.00	1	158.0	3.9	0.107
P6KE110A	94.00	5.0	105.00	116.00	1	152.0	4.1	0.107
P6KE120	97.20	5.0	108.00	132.00	1	173.0	3.6	0.107
P6KE120A	102.00	5.0	114.00	126.00	1	165.0	3.8	0.107
P6KE130	105.00	5.0	117.00	143.00	1	187.0	3.3	0.107
P6KE130A	111.00	5.0	124.00	137.00	1	179.0	3.5	0.107
P6KE150	121.00	5.0	135.00	165.00	1	215.0	2.9	0.108
P6KE150A	128.00	5.0	143.00	158.00	1	207.0	3.0	0.108
P6KE160	130.00	5.0	144.00	176.00	1	230.0	2.7	0.108
P6KE160A	136.00	5.0	152.00	168.00	1	219.0	2.8	0.108
P6KE170	138.00	5.0	153.00	187.00	1	244.0	2.5	0.108
P6KE170A	145.00	5.0	162.00	179.00	1	234.0	2.6	0.108
P6KE180	146.00	5.0	162.00	198.00	1	256.0	2.4	0.108
P6KE180A	154.00	5.0	171.00	189.00	1	246.0	2.5	0.108
P6KE200	162.00	5.0	180.00	220.00	1	287.0	2.1	0.108
P6KE200A	171.00	5.0	190.00	210.00	1	274.0	2.2	0.108
P6KE220	175.00	5.0	198.00	242.00	1	344.0	1.8	0.108
P6KE220A	185.00	5.0	209.00	231.00	1	328.0	1.9	0.108
P6KE250	202.00	5.0	225.00	275.00	1	360.0	1.7	0.110
P6KE250A	214.00	5.0	237.00	263.00	1	344.0	1.8	0.110
P6KE300	243.00	5.0	270.00	330.00	1	430.0	1.4	0.110
P6KE300A	256.00	5.0	285.00	315.00	1	414.0	1.5	0.110
P6KE350	284.00	5.0	315.00	385.00	1	504.0	1.2	0.110
P6KE350A	300.00	5.0	332.00	368.00	1	482.0	1.3	0.110
P6KE400	324.00	5.0	360.00	440.00	1	571.0	1.9	0.110
P6KE400A	342.00	5.0	380.00	420.00	1	548.0	1.1	0.110
P6KE440	356.00	5.0	396.00	484.00	1	598.0	0.99	0.110
P6KE440A	376.00	5.0	418.00	462.00	1	590.0	1.04	0.110

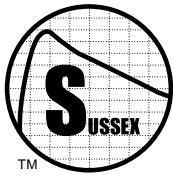
NOTES

NOTE 1: ♦ ELECTRICAL CHARACTERISTICS ARE AT A JUNCTION TEMPERATURE (T_J) OF 25°C

NOTE 2: ♦ FOR BIPOLAR DEVICES WITH A V_{BR} OF 10 VOLTS OR LESS, THE I_R LIMIT IS DOUBLED

NOTE 3: ♦ SURGE CURRENT WAVEFORM SHOWN IN FIGURE 2A ON PAGE 3-6

♦ PEAK PULSE POWER DERATING SHOWN IN FIGURE 3A ON PAGE 3-6



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P6KE SERIES 600 WATT TRANSIENT SUPPRESSOR SPECIFICATIONS CONTINUED

FIGURE 1A - TYPICAL JUNCTION CAPACITANCE

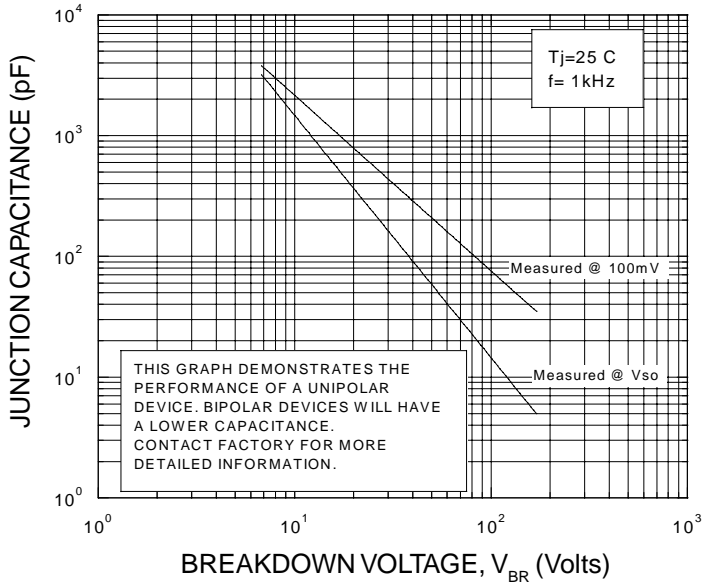


FIGURE 2A - PULSE WAVEFORM

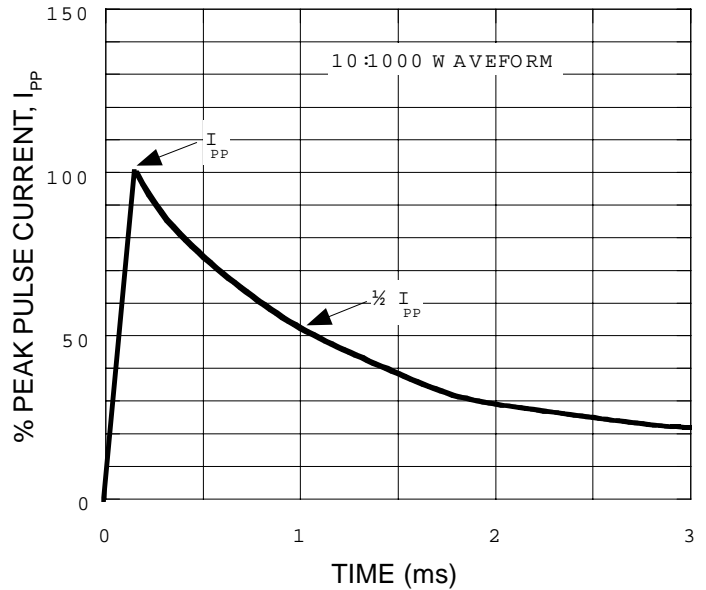
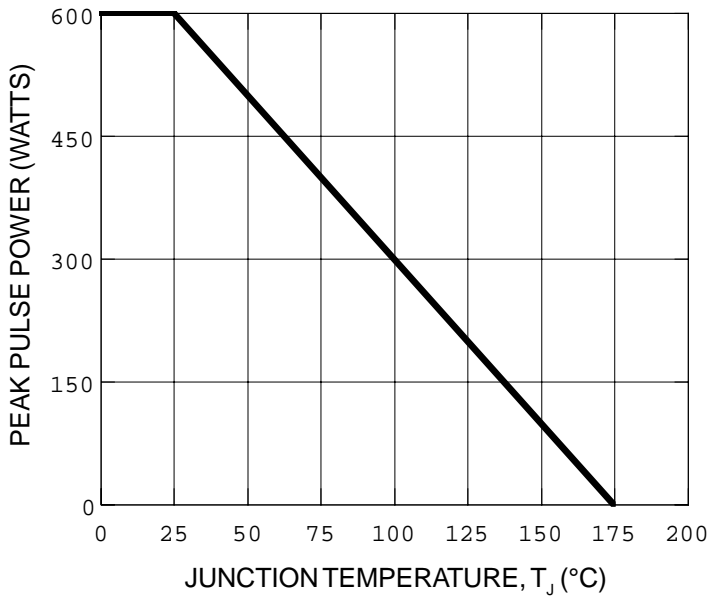
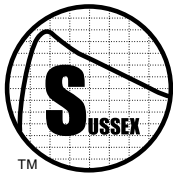


FIGURE 3A - PULSE DERATING CURVE



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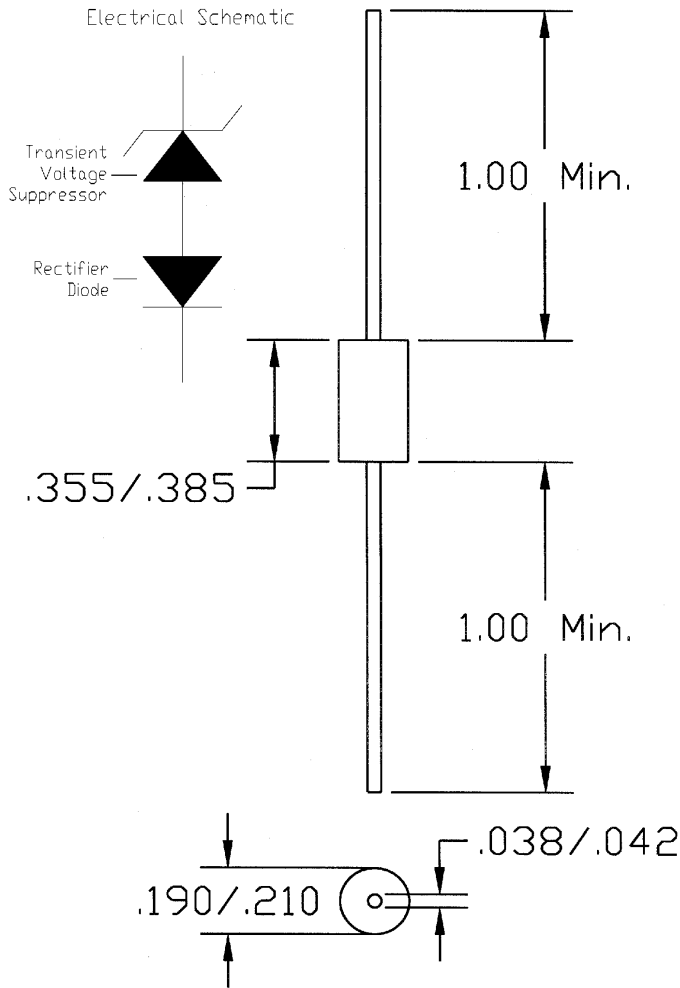


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**LCE6.5 TO LCE170A 1500 WATT
TRANSIENT SUPPRESSORS**



All Dimensions In Inches

LCE SERIES TRANSIENT SUPPRESSORS

VOLTAGES - 6.5 TO 170 VOLTS

1500 WATT MAXIMUM POWER DISSIPATION

LCE SERIES DEVICE SPECIFICATIONS

- ◆ Built Using Sussex Glass Passivated Dies
- ◆ Each Device Individually Inspected
- ◆ Molded Epoxy Package
- ◆ Operating Temperature: -65 to 175°C
- ◆ Storage Temperature: -65 to 175°C
- ◆ Marked With Sussex Logo, Part Number, and Cathode Band
- ◆ Solvent Resistant Marking
- ◆ Silver Plated Leads, Solderable Per MIL-STD-750
- ◆ Sussex 1500 Watt Transient Suppressor Die In Series With a Rectifier For Low Capacitance Transient Protection

CUSTOM ORDERING SPECIFIER

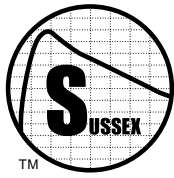
DIE SPECIFICATIONS

LCE

DEVICE PART NUMBER

STANDOFF VOLTAGE

- ◆ BLANK INDICATES UNIPOLAR DEVICE $\pm 10\%$ ON V_{BR}
- ◆ A INDICATES UNIPOLAR DEVICE $\pm 5\%$ ON V_{BR}
- ◆ C INDICATES BIPOLAR DEVICE $\pm 10\%$ ON V_{BR}
- ◆ CA INDICATES BIPOLAR DEVICE $\pm 5\%$ ON V_{BR}



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LCE6.5 TO LCE170A 1500 WATT TRANSIENT SUPPRESSOR SPECIFICATIONS CONTINUED

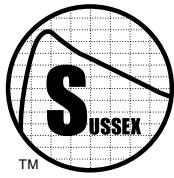
TABLE 5A - LCE SERIES TRANSIENT SUPPRESSOR ELECTRICAL SPECIFICATIONS (NOTE 1)

INDUSTRY STANDARD PART NUMBER	STANDOFF VOLTAGE (V_{SO}) Volts	MAX. REVERSE LEAKAGE (I_R) @ V_{SO} μA	REVERSE BREAKDOWN VOLTAGE (V_{BR}) @ I_T		TEST CURRENT (I_T) mA	MAX. CLAMPING VOLTAGE (V_{CL}) @ PEAK PULSE CURRENT (I_{PP}) (NOTE 2)		MAX. TEMP. COEFFICIENT OF V_{BR} (%/°C)	MAX CAPACITANCE @ 0 VOLTS Pf
			MIN. Volts	MAX. Volts		V_{CL} Volts	I_{PP} Amps		
			LCE6.5	6.5		1000	7.22		
LCE6.5A	6.5	1000	7.22	7.98	10	11.2	100	0.057	110
LCE7.0	7	500	7.78	9.51	10	13.3	100	0.061	110
LCE7.0A	7	500	7.78	8.6	10	12	100	0.061	110
LCE7.5	7.5	250	8.33	10.2	10	14.3	100	0.065	110
LCE7.5A	7.5	250	8.33	9.21	10	12.9	100	0.065	110
LCE8.0	8	100	8.89	10.9	1	15	100	0.068	110
LCE8.0A	8	100	8.89	9.83	1	13.6	100	0.068	110
LCE8.5	8.5	50	9.44	11.5	1	15.9	94	0.073	110
LCE8.5A	8.5	50	9.44	10.4	1	14.4	100	0.073	110
LCE9.0	9	10	10	12.2	1	16.9	89	0.075	110
LCE9.0A	9	10	10	11.1	1	15.4	97	0.075	110
LCE10	10	5	11.1	13.6	1	18.8	80	0.078	110
LCE10A	10	5	11.1	12.3	1	17	88	0.078	110
LCE11	11	5	12.2	14.9	1	20.1	74	0.061	110
LCE11A	11	5	12.2	13.5	1	18.2	82	0.081	110
LCE12	12	5	13.3	16.3	1	22	68	0.084	110
LCE12A	12	5	13.3	14.7	1	19.9	75	0.084	110
LCE13	13	5	14.4	17.6	1	23.8	63	0.086	110
LCE13A	13	5	14.4	15.9	1	21.5	70	0.086	110
LCE14	14	5	15.6	19.1	1	25.8	58	0.088	110
LCE14A	14	5	15.6	17.2	1	23.2	65	0.088	110
LCE15	15	5	16.7	20.4	1	26.9	56	0.090	110
LCE15A	15	5	16.7	18.5	1	24.4	61	0.090	110
LCE16	16	5	17.8	21.8	1	28.8	52	0.092	110
LCE16A	16	5	17.8	19.7	1	26	57	0.092	110
LCE17	17	5	18.9	23.1	1	30.5	49	0.091	110
LCE17A	17	5	18.9	20.9	1	27.6	54	0.094	110
LCE18	18	5	20	24.4	1	32.2	46	0.096	110
LCE18A	18	5	20	22.1	1	29.2	51	0.096	110
LCE20	20	5	22.2	27.1	1	35.8	42	0.097	110
LCE20A	20	5	22.2	24.5	1	32.4	46	0.097	110
LCE22	22	5	24.4	29.8	1	39.4	38	0.098	110
LCE22A	22	5	24.4	26.9	1	35.5	42	0.098	110
LCE24	24	5	26.7	32.6	1	43	35	0.099	110
LCE24A	24	5	26.7	29.5	1	38.9	39	0.099	110
LCE26	26	5	28.9	35.3	1	46.6	32	0.100	110
LCE26A	26	5	28.9	31.9	1	42.1	36	0.100	110
LCE28	28	5	31.1	38	1	50.1	30	0.101	110
LCE28A	28	5	31.1	34.4	1	45.5	33	0.101	110
LCE30	30	5	33.3	40.7	1	53.5	28	0.101	110
LCE30A	30	5	33.3	36.8	1	48.4	31	0.101	110
LCE33	33	5	36.7	44.9	1	59	25.4	0.102	110

THIS TABLE CONTINUES

NOTES

- NOTE 1: ♦ ELECTRICAL CHARACTERISTICS ARE AT A JUNCTION TEMPERATURE (T_J) OF 25°C
 NOTE 2: ♦ SURGE CURRENT WAVEFORM SHOWN IN FIGURE 2A ON PAGE 3-10
 ♦ PEAK PULSE POWER DERATING SHOWN IN FIGURE 3A ON PAGE 3-10



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LCE6.5 TO LCE170A 1500 WATT TRANSIENT SUPPRESSOR SPECIFICATIONS CONTINUED

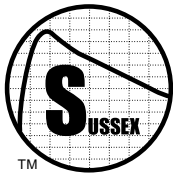
TABLE 5A - LCE SERIES TRANSIENT SUPPRESSOR ELECTRICAL SPECIFICATIONS (NOTE 1)

INDUSTRY STANDARD PART NUMBER	STANDOFF VOLTAGE (V _{SO}) Volts	MAX. REVERSE LEAKAGE (I _R)@V _{SO} µA	REVERSE BREAKDOWN VOLTAGE (V _{BR}) @ I _T		TEST CURRENT (I _T) mA	MAX. CLAMPING VOLTAGE (V _{CL}) @ PEAK PULSE CURRENT (I _{PP}) (NOTE 2)		MAX. TEMP. COEFFICIENT OF V _{BR} (%/°C)	MAX CAPACITANCE @ 0 VOLTS Pf
			MIN. Volts	MAX. Volts		V _{CL} Volts	I _{PP} Amps		
			LCE33A	33		5	36.7		
LCE36	36	5	40	48.9	1	64.3	23.3	0.103	110
LCE36A	36	5	40	44.2	1	58.1	25.8	0.103	110
LCE40	40	5	44.4	54.3	1	71.4	21	0.104	110
LCE40A	40	5	44.4	49.1	1	64.5	23.3	0.104	110
LCE43	43	5	47.8	58.4	1	76.7	19.5	0.104	110
LCE43A	43	5	48.8	52.8	1	69.4	21.6	0.104	110
LCE45	45	5	50	61.1	1	80.3	18.7	0.105	110
LCE45A	45	5	50	55.3	1	72.7	20.6	0.105	110
LCE48	48	5	53	65.1	1	85.5	17.5	0.105	110
LCE48A	48	5	53	58.9	1	77.4	19.4	0.105	110
LCE51	51	5	56.7	69.3	1	91.1	16.5	0.106	110
LCE51A	51	5	56.7	62.7	1	82.4	18.2	0.106	110
LCE54	54	5	60	73.3	1	96.3	15.6	0.106	110
LCE54A	54	5	60	66.3	1	87.1	17.2	0.106	110
LCE58	58	5	64.4	78.7	1	103	14.6	0.107	110
LCE58A	58	5	64.4	71.2	1	93.6	16	0.107	110
LCE60	60	5	66.7	81.5	1	107	14	0.107	110
LCE60A	60	5	66.7	73.7	1	96.8	15.5	0.107	110
LCE64	64	5	71.1	86.9	1	114	13.2	0.107	110
LCE64A	64	5	71.1	78.6	1	103	14.6	0.107	110
LCE70	70	5	77.8	95.1	1	125	12	0.108	110
LCE70A	70	5	77.8	86	1	113	13.3	0.108	110
LCE75	75	5	83.3	102	1	134	11.2	0.108	110
LCE75A	75	5	83.3	92.1	1	121	12.4	0.108	110
LCE80	80	5	88.7	108	1	142	10.6	0.108	110
LCE80A	80	5	88.7	98	1	129	11.6	0.108	110
LCE90	90	5	100	122	1	160	9.4	0.108	110
LCE90A	90	5	100	111	1	146	10.3	0.108	110
LCE100	100	5	111	136	1	179	8.4	0.108	110
LCE100A	100	5	111	123	1	162	9.3	0.108	110
LCE110	110	5	122	149	1	196	7.7	0.108	110
LCE110A	110	5	122	135	1	178	8.4	0.108	110
LCE120	120	5	133	163	1	214	7	0.110	110
LCE120A	120	5	133	147	1	193	7.8	0.110	110
LCE130	130	5	144	176	1	231	6.5	0.110	110
LCE130A	130	5	144	159	1	209	7.2	0.110	110
LCE150	150	5	167	204	1	268	5.6	0.110	110
LCE150A	150	5	167	185	1	243	6.2	0.110	110
LCE160	160	5	178	218	1	287	5.2	0.110	110
LCE160A	160	5	178	197	1	259	5.8	0.110	110
LCE170	170	5	189	231	1	304	4.9	0.110	110
LCE170A	170	5	189	209	1	275	5.4	0.110	110

HIGHER VOLTAGES AVAILABLE. CONTACT FACTORY

NOTES

- NOTE 1: ♦ ELECTRICAL CHARACTERISTICS ARE AT A JUNCTION TEMPERATURE (T_J) OF 25°C
 NOTE 2: ♦ SURGE CURRENT WAVEFORM SHOWN IN FIGURE 2A ON PAGE 3-10
 ♦ PEAK PULSE POWER DERATING SHOWN IN FIGURE 3A ON PAGE 3-10



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**LCE6.5 TO LCE170A 1500 WATT
TRANSIENT SUPPRESSOR
SPECIFICATIONS CONTINUED**

FIGURE 1A - TYPICAL JUNCTION CAPACITANCE

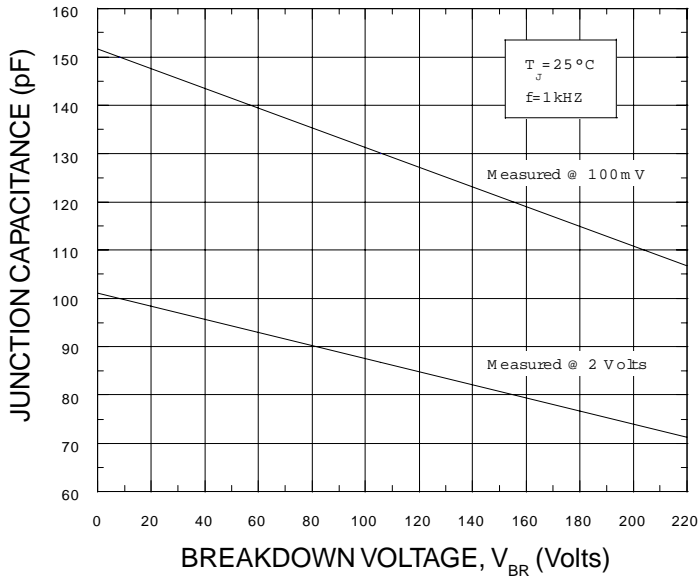


FIGURE 2A - PULSE WAVEFORM

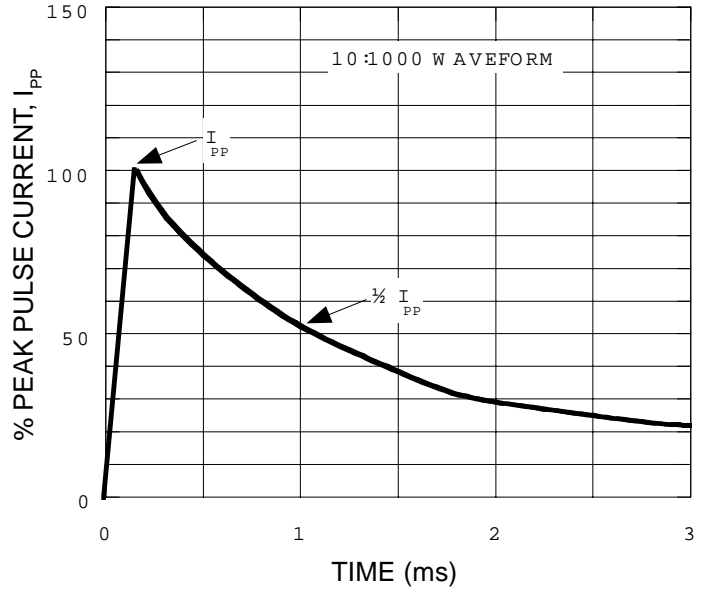
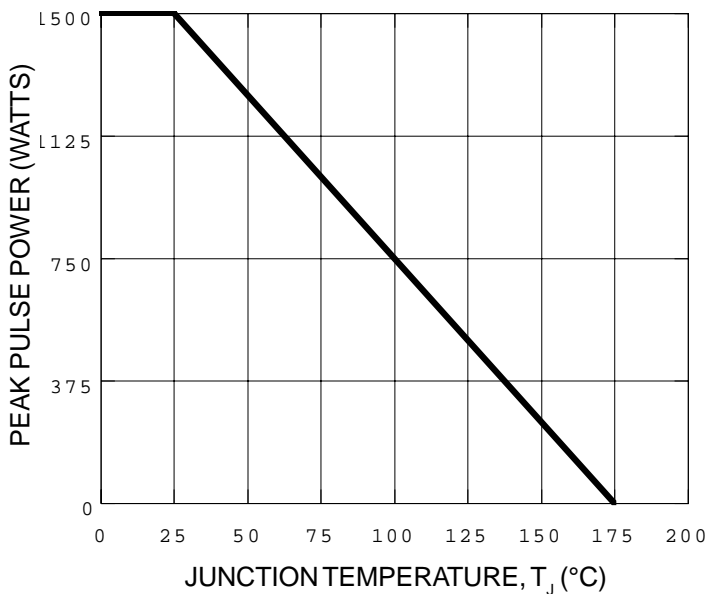
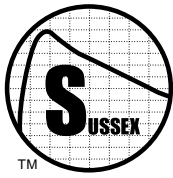


FIGURE 3A - PULSE DERATING CURVE



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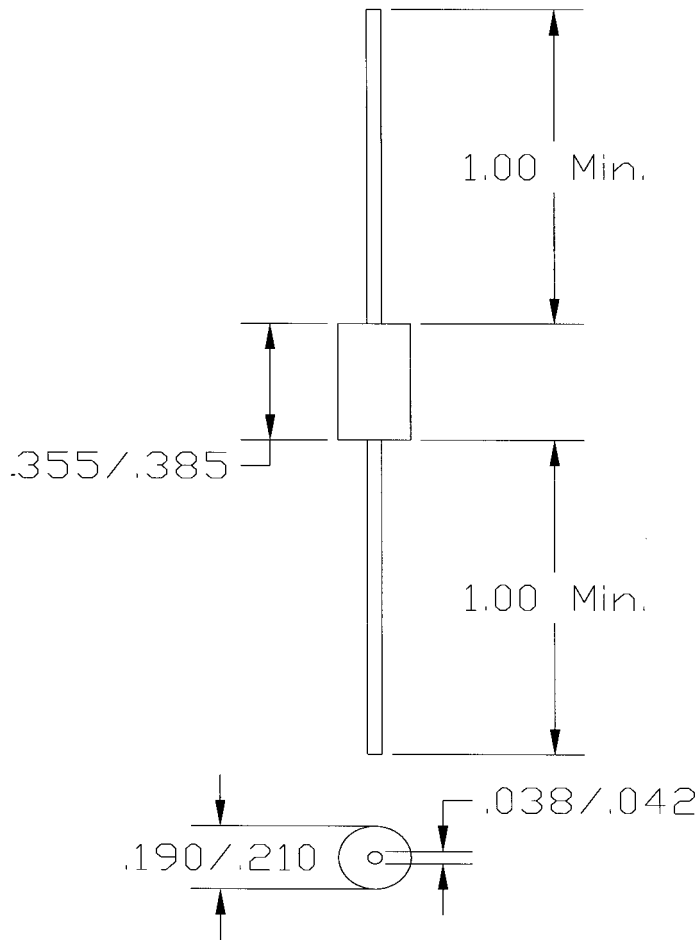


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**1.5KE SERIES 1500 WATT
TRANSIENT SUPPRESSORS**



All Dimensions In Inches

1.5KE SERIES TRANSIENT SUPPRESSORS

VOLTAGES - 6.8 TO 440 VOLTS

1500 WATT MAXIMUM POWER DISSIPATION

1.5KE SERIES DEVICE SPECIFICATIONS

- ◆ Built With Sussex Glass Passivated Dies
- ◆ Each Device Individually Inspected
- ◆ Molded Epoxy Package
- ◆ Polarity Indicated By Solvent Resistant Marking
- ◆ Operating Temperature: -55 to 175°C
- ◆ Storage Temperature: -55 to 175°C
- ◆ Marked With Sussex Logo, Part Number, and Cathode Band on Unipolar Types
- ◆ Silver Plated Leads, Solderable Per MIL-STD-750
- ◆ Underwriter Laboratories Approved



CUSTOM ORDERING SPECIFIER

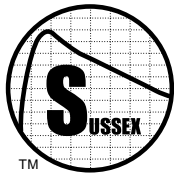
1.5KE

DEVICE PART NUMBER

REVERSE BREAKDOWN VOLTAGE (VBR)

- ◆ BLANK INDICATES UNIPOLAR DEVICE ±10% ON V_{BR}
- ◆ A INDICATES UNIPOLAR DEVICE ±5% ON V_{BR}
- ◆ C INDICATES BIPOLAR DEVICE ±10% ON V_{BR}
- ◆ CA INDICATES BIPOLAR DEVICE ±5% ON V_{BR}

DIE SPECIFICATIONS



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1.5KE SERIES 1500 WATT TRANSIENT SUPPRESSOR SPECIFICATIONS CONTINUED

TABLE 6A - 1.5KE SERIES 1500 WATT TRANSIENT SUPPRESSOR ELECTRICAL SPECIFICATIONS (NOTE 1)

JEDEC PART NUMBERS	SUSSEX PART NUMBERS 1500 WATT 1.5KE SERIES	STANDOFF VOLTAGE (V _{SO}) Volts	MAX. REVERSE LEAKAGE (I _R)@V _{SO} (NOTE 2) µA	REVERSE BREAKDOWN VOLTAGE (V _{BR}) @ I _r		TEST CURRENT (I _T) mA	MAX. CLAMPING VOLTAGE (V _{CL}) @ PEAK PULSE CURRENT (I _{PP}) (NOTE 3)		MAX. TEMP. COEFFICIENT OF V _{BR} (%/°C)
				MIN. Volts	MAX. Volts		V _{CL} Volts	I _{PP} Amps	
1N6267	1.5KE6.8	5.50	1000	6.12	7.48	10	10.8	139	0.057
1N6267A	1.5KE6.8A	5.80	1000	6.45	7.14	10	10.5	143	0.057
1N6268	1.5KE7.5	6.05	500	6.75	8.25	10	11.7	128	0.061
1N6268A	1.5KE7.5A	6.40	500	7.13	7.88	10	11.3	132	0.061
1N6269	1.5KE8.2	6.63	200	7.38	9.02	10	12.5	120	0.065
1N6269A	1.5KE8.2A	7.02	200	7.79	8.61	10	12.1	124	0.065
1N6270	1.5KE9.1	7.37	50	8.19	10.00	1	13.8	109	0.068
1N6270A	1.5KE9.1A	7.78	50	8.65	9.55	1	13.4	112	0.068
1N6271	1.5KE10	8.10	10	9.00	11.00	1	15.0	100	0.073
1N6271A	1.5KE10A	8.55	10	9.50	10.50	1	14.5	103	0.073
1N6272	1.5KE11	8.92	5.0	9.90	12.10	1	16.2	93	0.075
1N6272A	1.5KE11A	9.40	5.0	10.50	11.60	1	15.6	96	0.075
1N6273	1.5KE12	9.72	5.0	10.80	13.20	1	17.3	87	0.078
1N6273A	1.5KE12A	10.20	5.0	11.40	12.60	1	16.7	90	0.078
1N6274	1.5KE13	10.50	5.0	11.70	14.30	1	19.0	79	0.061
1N6274A	1.5KE13A	11.10	5.0	12.40	13.70	1	18.2	82	0.081
1N6275	1.5KE15	12.10	5.0	13.50	16.50	1	22.0	68	0.084
1N6275A	1.5KE15A	12.80	5.0	14.30	15.80	1	21.2	71	0.084
1N6276	1.5KE16	12.90	5.0	14.40	17.60	1	23.5	64	0.086
1N6276A	1.5KE16A	13.60	5.0	15.20	16.80	1	22.5	67	0.086
1N6277	1.5KE18	14.50	5.0	16.20	19.80	1	26.5	56.5	0.088
1N6277A	1.5KE18A	15.30	5.0	17.10	18.90	1	25.2	59.5	0.088
1N6278	1.5KE20	16.20	5.0	18.00	22.00	1	29.1	51.5	0.090
1N6278A	1.5KE20A	17.10	5.0	19.00	21.00	1	27.7	54	0.090
1N6279	1.5KE22	17.80	5.0	19.80	24.20	1	31.9	47	0.092
1N6279A	1.5KE22A	18.80	5.0	20.90	23.10	1	30.6	49	0.092
1N6280	1.5KE24	19.40	5.0	21.60	26.40	1	34.7	43	0.091
1N6280A	1.5KE24A	20.50	5.0	22.80	25.20	1	33.2	45	0.094
1N6281	1.5KE27	21.80	5.0	24.30	29.70	1	39.1	38.5	0.096
1N6281A	1.5KE27A	23.10	5.0	25.70	28.40	1	37.5	40	0.096
1N6282	1.5KE30	24.30	5.0	27.00	33.00	1	43.5	34.5	0.097
1N6282A	1.5KE30A	25.60	5.0	28.50	31.50	1	41.4	36	0.097
1N6283	1.5KE33	26.80	5.0	29.70	36.30	1	47.7	31.5	0.098
1N6283A	1.5KE33A	28.20	5.0	31.40	34.70	1	45.7	33	0.098
1N6284	1.5KE36	29.10	5.0	32.40	39.60	1	52.0	29	0.099
1N6284A	1.5KE36A	30.80	5.0	34.20	37.80	1	49.9	30	0.099
1N6285	1.5KE39	31.60	5.0	35.10	42.90	1	56.4	26.5	0.100
1N6285A	1.5KE39A	33.30	5.0	37.10	41.00	1	53.9	28	0.100
1N6286	1.5KE43	34.80	5.0	38.70	47.30	1	61.9	24	0.101
1N6286A	1.5KE43A	36.80	5.0	40.90	45.20	1	59.3	25	0.101
1N6287	1.5KE47	36.10	5.0	42.30	51.70	1	67.8	22.2	0.101
1N6287A	1.5KE47A	40.20	5.0	44.70	49.40	1	64.8	23.2	0.101
1N6288	1.5KE51	41.30	5.0	45.90	56.10	1	73.5	20.4	0.102

THIS TABLE CONTINUES

NOTES

NOTE 1: ♦ ELECTRICAL CHARACTERISTICS ARE AT A JUNCTION TEMPERATURE (T_J) OF 25°C
 NOTE 2: ♦ FOR BIPOLAR DEVICES WITH A V_{BR} OF 10 VOLTS OR LESS, THE I_R LIMIT IS DOUBLED

NOTE 3: ♦ SURGE CURRENT WAVEFORM SHOWN IN FIGURE 2A ON PAGE 3-14
 ♦ PEAK PULSE POWER DERATING SHOWN IN FIGURE 3A ON PAGE 3-14



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1.5KE SERIES 1500 WATT TRANSIENT SUPPRESSOR SPECIFICATIONS CONTINUED

TABLE 6A - 1.5KE SERIES 1500 WATT TRANSIENT SUPPRESSOR ELECTRICAL SPECIFICATIONS (NOTE 1)									
JEDEC PART NUMBERS	SUSSEX PART NUMBERS 1500 WATT 1.5KE SERIES	STANDOFF VOLTAGE (V _{SO}) Volts	MAX. REVERSE LEAKAGE (I _R) @ V _{SO} (NOTE 2) μ A	REVERSE BREAKDOWN VOLTAGE (V _{BR}) @ I _T		TEST CURRENT (I _T) mA	MAX. CLAMPING VOLTAGE (V _{CL}) @ PEAK PULSE CURRENT (I _{PP}) (NOTE 3)		MAX. TEMP. COEFFICIENT OF V _{BR} (%/°C)
				MIN. Volts	MAX. Volts		V _{CL} Volts	I _{PP} Amps	
1N6288A	1.5KE51A	43.60	5.0	48.50	53.60	1	70.1	21.4	0.102
1N6289	1.5KE56	45.60	5.0	50.40	61.80	1	80.5	18.6	0.103
1N6289A	1.5KE56A	47.80	5.0	53.20	58.80	1	77.0	19.5	0.103
1N6290	1.5KE62	50.20	5.0	55.80	68.20	1	89.0	16.9	0.104
1N6290A	1.5KE62A	53.00	5.0	58.90	65.10	1	85.0	17.7	0.104
1N6291	1.5KE68	55.10	5.0	61.20	74.80	1	96.0	15.3	0.104
1N6291A	1.5KE68A	58.10	5.0	64.60	71.40	1	92.0	16.3	0.104
1N6292	1.5KE75	60.70	5.0	67.50	82.50	1	108.0	13.9	0.105
1N6292A	1.5KE75A	64.10	5.0	71.30	78.80	1	103.0	14.6	0.105
1N6293	1.5KE82	66.40	5.0	73.80	90.20	1	118.0	12.7	0.105
1N6293A	1.5KE82A	70.10	5.0	77.90	86.10	1	113.0	13.3	0.105
1N6294	1.5KE91	73.70	5.0	81.90	100.00	1	131.0	11.4	0.106
1N6294A	1.5KE91A	77.80	5.0	86.50	95.50	1	125.0	12	0.106
1N6295	1.5KE100	81.00	5.0	90.00	110.00	1	144.0	10.4	0.106
1N6295A	1.5KE100A	85.50	5.0	95.00	105.00	1	137.0	11	0.106
1N6296	1.5KE110	89.20	5.0	99.00	121.00	1	158.0	9.5	0.107
1N6296A	1.5KE110A	94.00	5.0	106.00	116.00	1	152.0	9.9	0.107
1N6297	1.5KE120	97.20	5.0	108.00	132.00	1	173.0	8.7	0.107
1N6297A	1.5KE120A	102.00	5.0	114.00	126.00	1	165.0	9.1	0.107
1N6298	1.5KE130	106.00	5.0	117.00	143.00	1	187.0	8	0.107
1N6298A	1.5KE130A	111.00	5.0	124.00	137.00	1	179.0	8.4	0.107
1N6299	1.5KE150	121.00	5.0	136.00	165.00	1	215.0	7	0.108
1N6299A	1.5KE150A	128.00	5.0	143.00	158.00	1	207.0	7.2	0.108
1N6300	1.5KE160	130.00	5.0	144.00	176.00	1	230.0	6.5	0.108
1N6300A	1.5KE160A	136.00	5.0	152.00	168.00	1	219.0	6.8	0.108
1N6301	1.5KE170	138.00	5.0	153.00	187.00	1	244.0	6.2	0.108
1N6301A	1.5KE170A	145.00	5.0	162.00	179.00	1	234.0	6.4	0.108
1N6302	1.5KE180	146.00	5.0	162.00	198.00	1	256.0	5.8	0.108
1N6302A	1.5KE180A	154.00	5.0	171.00	189.00	1	246.0	6.1	0.108
1N6303A	1.5KE200	162.00	5.0	180.00	220.00	1	287.0	5.2	0.108
1N6303	1.5KE200A	171.00	5.0	190.00	210.00	1	274.0	5.5	0.108
N/A	1.5KE220	175.00	5.0	196.00	242.00	1	344.0	4.3	0.108
N/A	1.5KE220A	185.00	5.0	209.00	231.00	1	328.0	4.6	0.108
N/A	1.5KE250	202.00	5.0	225.00	275.00	1	360.0	5	0.110
N/A	1.5KE250A	214.00	5.0	237.00	263.00	1	344.0	5	0.110
N/A	1.5KE300	243.00	5.0	270.00	330.00	1	430.0	5	0.110
N/A	1.5KE300A	256.00	5.0	285.00	315.00	1	414.0	5	0.110
N/A	1.5KE350	284.00	5.0	315.00	385.00	1	504.0	4	0.110
N/A	1.5KE350A	300.00	5.0	333.00	368.00	1	482.0	4	0.110
N/A	1.5KE400	324.00	5.0	360.00	440.00	1	574.0	4	0.110
N/A	1.5KE400A	342.00	5.0	380.00	420.00	1	548.0	4	0.110
N/A	1.5KE440	356.00	5.0	396.00	484.00	1	598.0	4	0.110
N/A	1.5KE440A	376.00	5.0	418.00	462.00	1	590.0	4	0.110

NOTES

NOTE 1: ♦ ELECTRICAL CHARACTERISTICS ARE AT A JUNCTION TEMPERATURE (T_J) OF 25°C
NOTE 2: ♦ FOR BIPOLAR DEVICES WITH A V_{BR} OF 10 VOLTS OR LESS, THE I_R LIMIT IS DOUBLED

NOTE 3: ♦ SURGE CURRENT WAVEFORM SHOWN IN FIGURE 2A ON PAGE 3-14
 ♦ PEAK PULSE POWER DERATING SHOWN IN FIGURE 3A ON PAGE 3-14

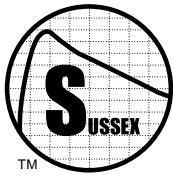


FIGURE 1A - TYPICAL JUNCTION CAPACITANCE

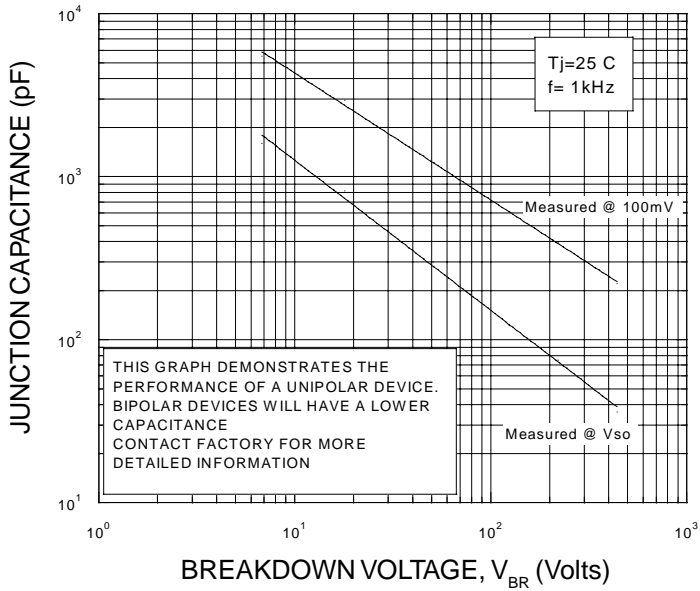


FIGURE 2A - PULSE WAVEFORM

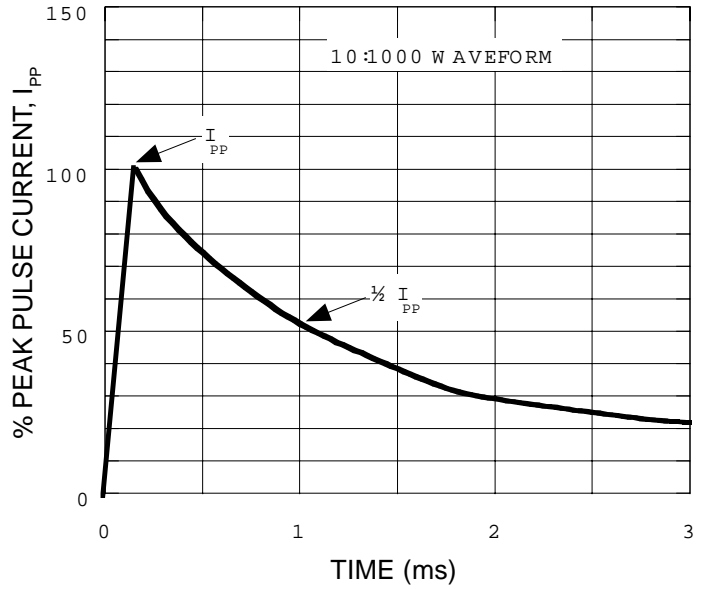
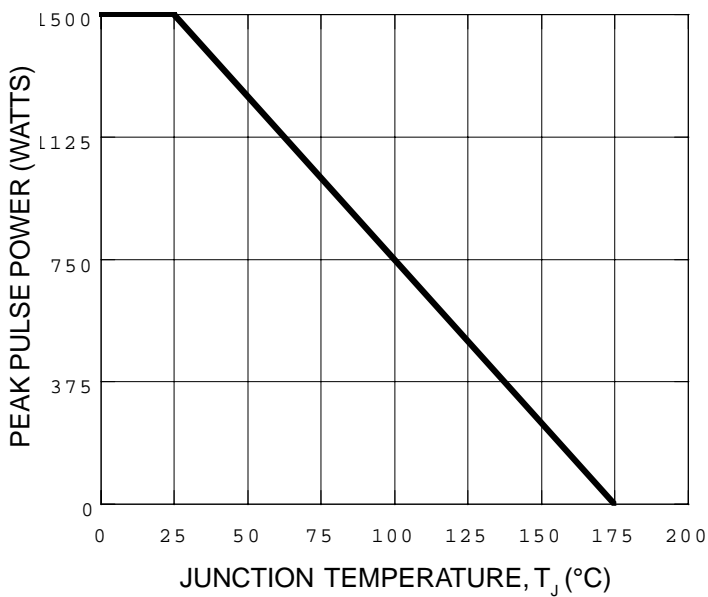
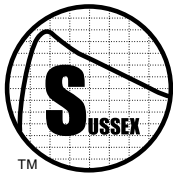


FIGURE 3A - PULSE DERATING CURVE



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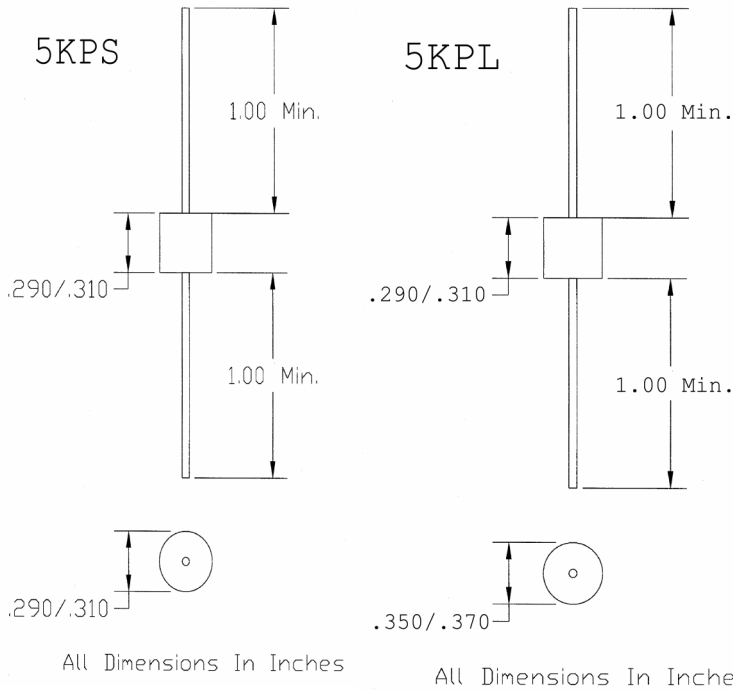


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**5KP SERIES 5000 WATT
TRANSIENT SUPPRESSORS**



5KP SERIES TRANSIENT SUPPRESSORS

VOLTAGES - 5.0 TO 440 VOLTS

5000 WATT MAXIMUM POWER DISSIPATION

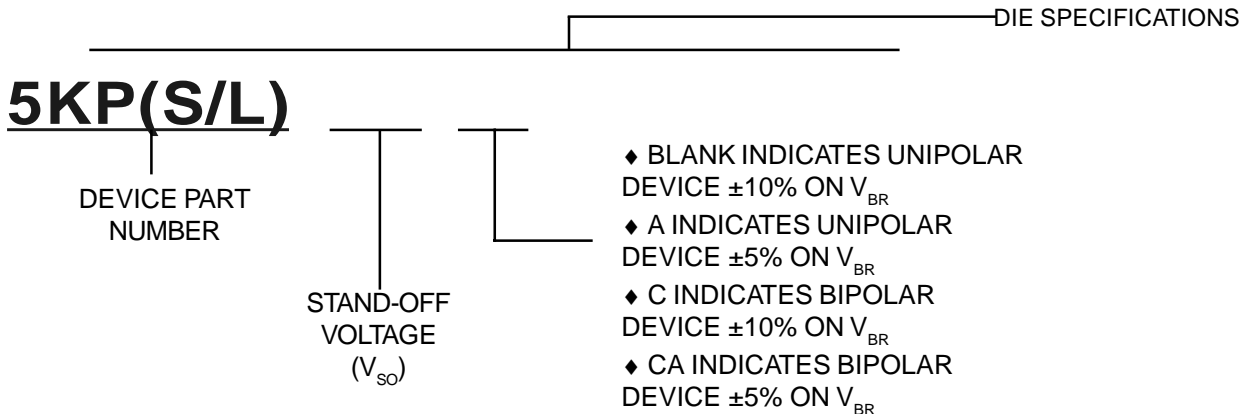
5KP SERIES DEVICE SPECIFICATIONS

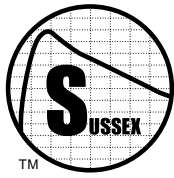
- ◆ Built With Sussex Glass Passivated Dies
- ◆ Each Device Individually Inspected
- ◆ Molded Epoxy Package
- ◆ Operating Temperature: -55 to 175°C
- ◆ Storage Temperature: -55 to 175°C
- ◆ Marked With Sussex Logo, Part Number, and Cathode Band on Unipolar Types
- ◆ Plated Leads, Solderable Per MIL-STD-750 Method 2026
- ◆ Underwriter Laboratories Approved



Two package sizes are available for your convenience. The "L" version is the industry standard size package for the 5KP. The "S" version is slightly smaller to save space in your application.

CUSTOM ORDERING SPECIFIER





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5KP SERIES 5000 WATT TRANSIENT SUPPRESSOR SPECIFICATIONS CONTINUED

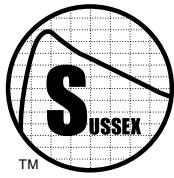
TABLE 7A - 5KP SERIES 5000 WATT TRANSIENT SUPPRESSOR ELECTRICAL SPECIFICATIONS (NOTE 1)									
SUSSEX PART NUMBERS 5000 WATT 5KPSERIES	STANDOFF VOLTAGE (V _{SO}) Volts	MAX. REVERSE LEAKAGE (I _R)@V _{SO} (NOTE 2) µA	REVERSE BREAKDOWN VOLTAGE (V _{BR}) @ I _T		TEST CURRENT (I _T) mA	MAX. CLAMPING VOLTAGE (V _{CL}) @ PEAK PULSE CURRENT (I _{PP}) (NOTE 3)		MAX. TEMP. COEFFICIENT OF V _{BR} (%/°C)	
			MIN. Volts	MAX. Volts		V _{CL} Volts	I _{PP} Amps		
			5KP5.0	5.0		2000	6.4		7.3
5KP5.0A	5.0	2000	6.4	7.0	50	9.2	570	0.057	
5KP6.0	6.0	5000	6.7	8.2	50	11.4	460	0.061	
5KP6.0A	6.0	5000	6.7	7.4	50	10.3	509	0.061	
5KP6.5	6.5	2000	7.2	8.8	50	12.3	426	0.065	
5KP6.5A	6.5	2000	7.2	8.0	50	11.2	468	0.065	
5KP7.0	7.0	1000	7.8	9.5	50	13.3	394	0.068	
5KP7.0A	7.0	1000	7.8	8.6	50	12.0	437	0.068	
5KP7.5	7.5	250	8.3	10.2	5.0	14.3	367	0.073	
5KP7.5A	7.5	250	8.3	9.2	5.0	12.9	406	0.073	
5KP8.0	8.0	150	8.9	10.9	5.0	15.0	350	0.075	
5KP8.0A	8.0	150	8.9	9.8	5.0	13.6	386	0.075	
5KP8.5	8.5	50	9.4	11.5	5.0	15.9	330	0.078	
5KP8.5A	8.5	50	9.4	10.4	5.0	14.4	364	0.078	
5KP9.0	9.0	20	10.0	12.2	5.0	16.9	310	0.081	
5KP9.0A	9.0	20	10.0	11.1	5.0	15.4	340	0.081	
5KP10	10	15	11.1	13.6	5.0	18.8	279	0.084	
5KP10A	10	15	11.1	12.3	5.0	17.0	308	0.084	
5KP11	11	10	12.2	14.9	5.0	20.1	261	0.086	
5KP11A	11	10	12.2	13.5	5.0	18.2	288	0.086	
5KP12	12	10	13.3	16.3	5.0	22.0	238	0.088	
5KP12A	12	10	13.3	14.7	5.0	19.9	263	0.088	
5KP13	13	10	14.4	17.6	5.0	23.8	220	0.090	
5KP13A	13	10	14.4	15.9	5.0	21.5	244	0.090	
5KP14	14	10	15.6	19.1	5.0	25.8	203	0.092	
5KP14A	14	10	15.6	17.2	5.0	23.2	226	0.092	
5KP15	15	10	16.7	20.4	5.0	26.9	195	0.094	
5KP15A	15	10	16.7	18.5	5.0	24.4	215	0.094	
5KP16	16	10	17.8	21.8	5.0	28.8	182	0.096	
5KP16A	16	10	17.8	19.7	5.0	26.0	201	0.096	
5KP17	17	10	18.9	23.1	5.0	30.5	172	0.097	
5KP17A	17	10	18.9	20.9	5.0	27.6	190	0.097	
5KP18	18	10	20.0	24.4	5.0	32.2	163	0.098	
5KP18A	18	10	20.0	22.1	5.0	29.2	179	0.098	
5KP20	20	10	22.2	27.1	5.0	35.8	146	0.099	
5KP20A	20	10	22.2	24.5	5.0	32.4	162	0.099	
5KP22	22	10	24.4	29.8	5.0	39.4	133	0.100	
5KP22A	22	10	24.4	26.9	5.0	35.5	147	0.100	
5KP24	24	10	26.7	32.6	5.0	43.0	122	0.101	
5KP24A	24	10	26.7	29.5	5.0	38.9	134	0.101	
5KP26	26	10	28.9	35.3	5.0	46.6	112	0.101	
5KP26A	26	10	28.9	31.9	5.0	42.1	124	0.101	
5KP28	28	10	31.1	38.0	5.0	50.1	104	0.102	
5KP28A	28	10	31.1	34.4	5.0	45.4	115	0.102	
5KP30	30	10	33.3	40.7	5.0	53.5	98	0.103	
5KP30A	30	10	33.3	36.8	5.0	48.4	108	0.103	
5KP33	33	10	36.7	44.9	5.0	59.0	88	0.104	
5KP33A	33	10	36.7	40.6	5.0	53.3	98	0.104	
5KP36	36	10	40.0	48.9	5.0	64.3	81	0.104	
5KP36A	36	10	40.0	44.2	5.0	58.1	90	0.104	
5KP40	40	10	44.4	54.3	5.0	71.4	73	0.105	

THIS TABLE CONTINUES

NOTES

NOTE 1: ♦ ELECTRICAL CHARACTERISTICS ARE AT A JUNCTION TEMPERATURE (T_J) OF 25°C
NOTE 2: ♦ FOR BIPOLAR DEVICES WITH A V_{BR} OF 10 VOLTS OR LESS, THE I_R LIMIT IS DOUBLED

NOTE 3: ♦ SURGE CURRENT WAVEFORM SHOWN IN FIGURE 2A ON PAGE 3-18
 ♦ PEAK PULSE POWER DERATING SHOWN IN FIGURE 3A ON PAGE 3-18



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5KP SERIES 5000 WATT TRANSIENT SUPPRESSOR SPECIFICATIONS CONTINUED

TABLE 7A - 5KP SERIES 5000 WATT TRANSIENT SUPPRESSOR ELECTRICAL SPECIFICATIONS (NOTE 1)								
SUSSEX PART NUMBERS 5000 WATT 5KPSERIES	STANDOFF VOLTAGE (V _{SO}) Volts	MAX. REVERSE LEAKAGE (I _R) @ V _{SO} (NOTE 2) μA	REVERSE BREAKDOWN VOLTAGE (V _{BR}) @ I _T		TEST CURRENT (I _T) mA	MAX. CLAMPING VOLTAGE (V _{CL}) @ PEAK PULSE CURRENT (I _{PP}) (NOTE 3)		MAX. TEMP. COEFFICIENT OF V _{BR} (% / °C)
			MIN. Volts	MAX. Volts		V _{CL} Volts	I _{PP} Amps	
			5KP40A	40		10	44.4	
5KP43	43	10	47.8	58.4	5.0	76.7	68	0.105
5KP43A	43	10	47.8	52.8	5.0	69.4	75	0.105
5KP45	45	10	50.0	61.1	5.0	80.3	65	0.106
5KP45A	45	10	50.0	55.3	5.0	72.7	72	0.106
5KP48	48	10	53.3	65.2	5.0	85.5	61	0.106
5KP48A	48	10	53.3	58.9	5.0	77.4	67	0.106
5KP51	51	10	56.1	69.3	5.0	91.1	57	0.107
5KP51A	51	10	56.1	62.7	5.0	82.4	63	0.107
5KP54	54	10	60.0	73.3	5.0	96.3	54	0.107
5KP54A	54	10	60.0	66.3	5.0	87.1	60	0.107
5KP58	58	10	64.4	78.7	5.0	103.0	50	0.107
5KP58A	58	10	64.4	71.2	5.0	94.0	55	0.107
5KP60	60	10	66.7	81.5	5.0	107.0	49	0.108
5KP60A	60	10	66.7	73.7	5.0	97.0	54	0.108
5KP64	64	10	71.1	96.9	5.0	114.0	46	0.108
5KP64A	64	10	71.1	78.6	5.0	103.0	50	0.108
5KP70	70	10	77.6	95.1	5.0	125.0	42	0.108
5KP70A	70	10	77.8	86.0	5.0	113.0	46	0.108
5KP75	75	10	83.3	102.0	5.0	134.0	39	0.108
5KP75A	75	10	83.3	92.1	5.0	121.0	43	0.108
5KP78	78	10	86.7	106.0	5.0	139.0	37	0.108
5KP78A	78	10	86.7	95.8	5.0	126.0	41	0.108
5KP85	85	10	94.4	115.0	5.0	151.0	34	0.108
5KP85A	85	10	94.4	104.0	5.0	137.0	38	0.110
5KP90	90	10	100	122.0	5.0	160.0	32	0.110
5KP90A	90	10	100	111.0	5.0	146.0	35	0.110
5KP100	100	10	111	136.0	5.0	179.0	29	0.110
5KP100A	100	10	111	123.0	5.0	162.0	32	0.110
5KP110	110	10	122	149.0	5.0	196.0	26	0.112
5KP110A	110	10	122	135.0	5.0	177.0	28	0.112
5KP120	120	10	133	163.0	5.0	214.0	23	0.121
5KP120A	120	10	133	148.0	5.0	194.0	26.0	0.121
5KP160	160	10	177	217.0	5.0	285.0	18.0	0.135
5KP160A	160	10	177	197.0	5.0	259.0	19.0	0.134
5KP180	180	10	199	244.0	5.0	321.0	16.0	0.150
5KP180A	180	10	199	222.0	5.0	291.0	17.0	0.150
5KP200	200	10	222	272.0	5.0	356.0	14.0	0.200
5KP200A	200	10	222	247.0	5.0	323.0	15.0	0.200
5KP220	220	10	244	299.0	5.0	392.0	13.0	0.200
5KP220A	220	10	244	271.0	5.0	356.0	14.0	0.200
5KP250	250	10	277	340.0	5.0	445.0	11.0	0.222
5KP250A	250	10	277	308.0	5.0	404.0	12.0	0.222
5KP320	320	10	355	435.0	5.0	570.0	9.0	0.235
5KP320A	320	10	355	395.0	5.0	517.0	10.0	0.235
5KP360	360	10	399	489.0	5.0	641.0	8.0	0.240
5KP360A	360	10	399	444.0	5.0	582.0	9.0	0.240
5KP400	400	10	443	543.0	5.0	712.0	7.0	0.250
5KP400A	400	10	443	493.0	5.0	647.0	8.0	0.250
5KP440	440	10	488	598.0	5.0	784.0	6.0	0.260
5KP440A	440	10	488	543.0	5.0	711.0	7.0	0.260

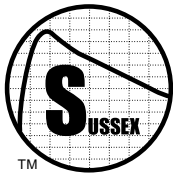
NOTES

NOTE 1: ♦ ELECTRICAL CHARACTERISTICS ARE AT A JUNCTION TEMPERATURE (T_J) OF 25°C

NOTE 3: ♦ SURGE CURRENT WAVEFORM SHOWN IN FIGURE 2A ON PAGE 3-18

NOTE 2: ♦ FOR BIPOLAR DEVICES WITH A V_{BR} OF 10 VOLTS OR LESS, THE I_R LIMIT IS DOUBLED

♦ PEAK PULSE POWER DERATING SHOWN IN FIGURE 3A ON PAGE 3-18



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**5KP SERIES 5000 WATT
TRANSIENT SUPPRESSOR
SPECIFICATIONS CONTINUED**

FIGURE 1A - TYPICAL JUNCTION CAPACITANCE

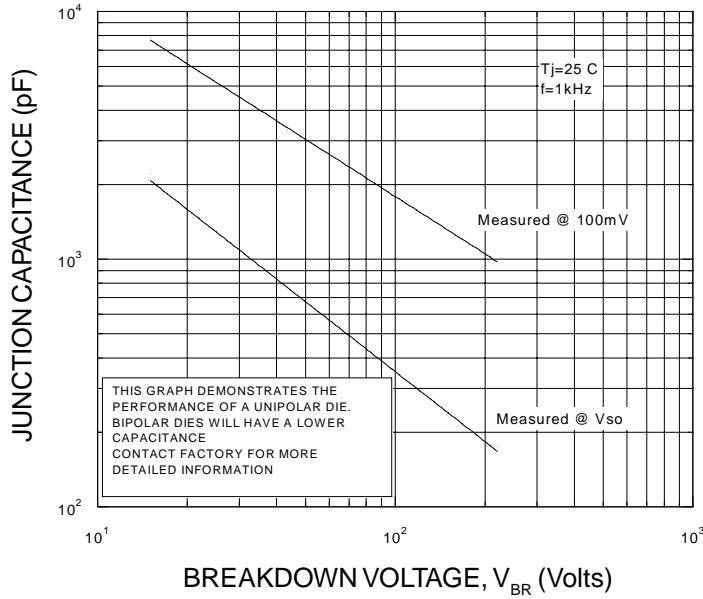


FIGURE 2A - PULSE WAVEFORM

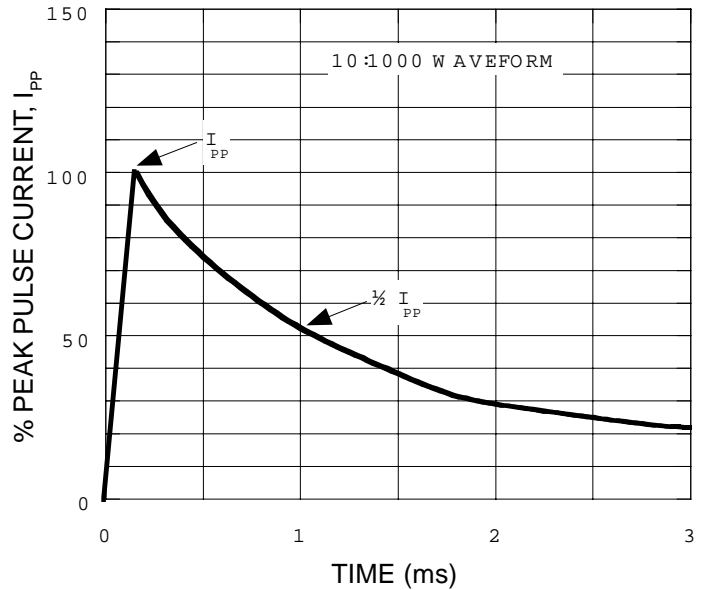
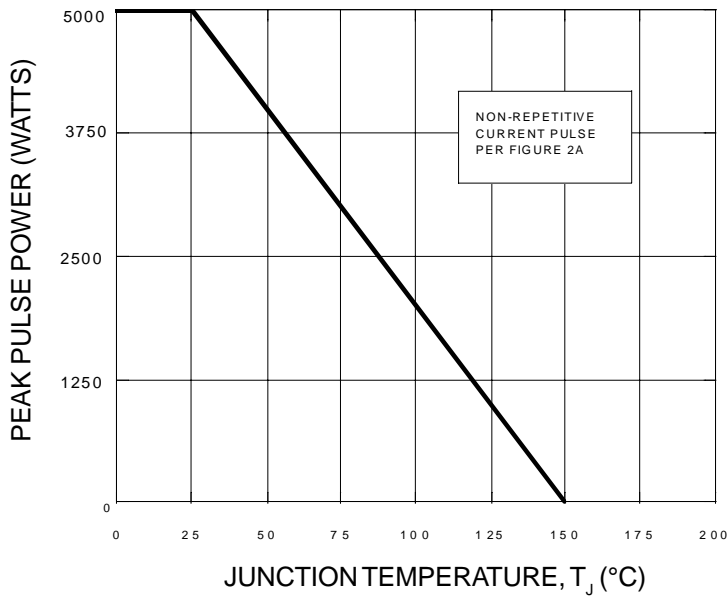
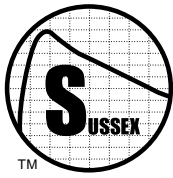


FIGURE 3A - PULSE DERATING CURVE



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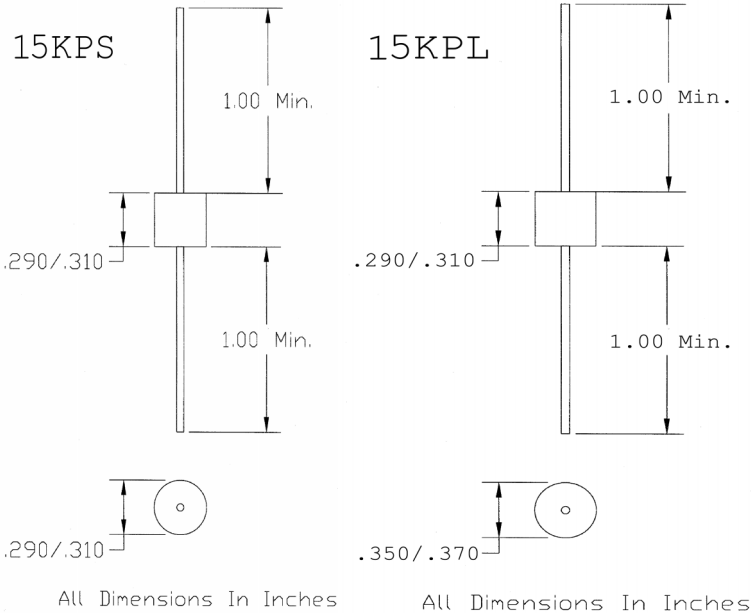


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**15KP SERIES 15000 WATT
TRANSIENT SUPPRESSORS**



15KP SERIES TRANSIENT SUPPRESSORS

VOLTAGES - 17 TO 220 VOLTS

15000 WATT MAXIMUM POWER DISSIPATION

15KP SERIES DEVICE SPECIFICATIONS

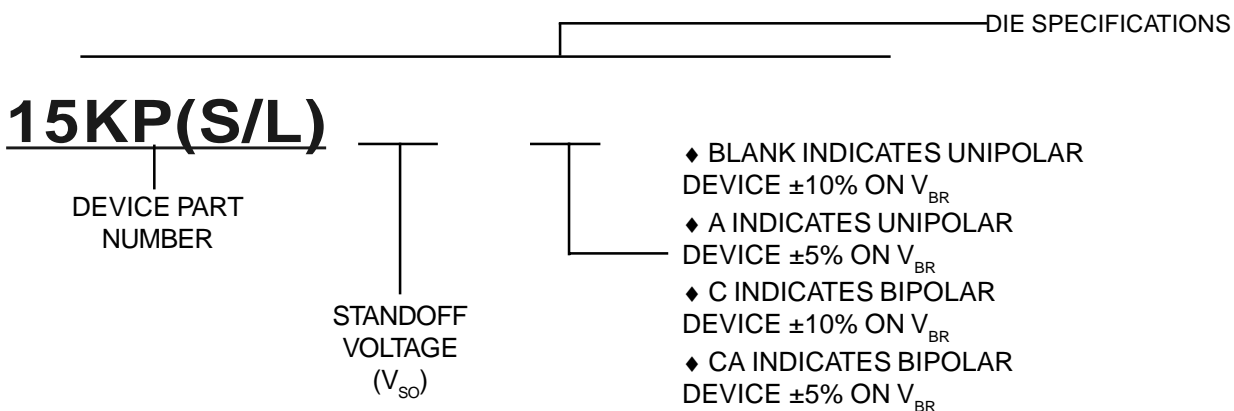
- ◆ Built With Sussex Glass Passivated Dies
- ◆ Each Device Individually Inspected
- ◆ Molded Epoxy Package
- ◆ Operating Temperature: -55 to 175°C
- ◆ Storage Temperature: -55 to 175°C
- ◆ Marked With Sussex Logo, Part Number, and Cathode Band on Unipolar Types
- ◆ Solvent Resistant Marking
- ◆ Silver Plated Leads, Solderable Per MIL-STD-750

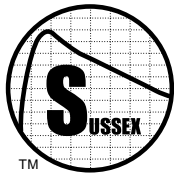


On 15KPS

Two package sizes are available for your convenience. The "L" version is the industry standard size package for the 15KP. The "S" version is slightly smaller to save space in your application.

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**15KP SERIES 15000 WATT
TRANSIENT SUPPRESSOR
SPECIFICATIONS CONTINUED**

TABLE 8A - 15KP SERIES TRANSIENT SUPPRESSOR ELECTRICAL SPECIFICATIONS (NOTE 1)

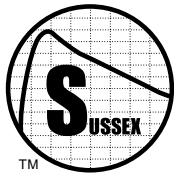
SUSSEX PART NUMBERS	STANDOFF VOLTAGE (V _{SO}) Volts	MAX. REVERSE LEAKAGE (I _R) @ V _{SO} (NOTE 2) µA	REVERSE BREAKDOWN VOLTAGE (V _{BR}) @ I _T		TEST CURRENT (I _T) mA	MAX. CLAMPING VOLTAGE (V _{CL}) @ PEAK PULSE CURRENT (I _{PP}) (NOTE 3)		MAX. TEMP. COEFFICIENT OF V _{BR} (%/°C)
			MIN. Volts	MAX. Volts		V _{CL} Volts	I _{PP} Amps	
15KP17	17	5000	18.9	23.10	50	32.3	464	0.090
15KP17A	17	5000	18.9	20.90	50	29.3	512	0.085
15KP18	18	5000	20	24.40	50	35.0	429	0.090
15KP18A	18	5000	20	22.10	50	30.9	485	0.086
15KP20	20	1500	22.2	27.10	20	37.9	396	0.097
15KP20A	20	1500	22.2	24.50	20	34.3	437	0.090
15KP22	22	500	24.4	29.80	10	41.1	365	0.100
15KP22A	22	500	24.4	26.90	10	37.1	404	0.094
15KP24	24	150	26.7	32.60	5	45.0	333	0.101
15KP24A	24	150	26.7	29.50	5	40.7	369	0.096
15KP26	26	50	28.9	35.30	5	48.7	308	0.100
15KP26A	26	50	28.9	31.90	5	44.0	341	0.095
15KP28	28	25	31.1	38.00	5	52.4	286	0.101
15KP28A	28	25	31.1	34.40	5	47.5	316	0.095
15KP30	30	15	33.3	40.70	5	56.2	267	0.073
15KP30A	30	15	33.3	36.80	5	50.7	296	0.097
15KP33	33	10	36.7	44.90	5	60.5	248	0.103
15KP33A	33	10	36.7	40.60	5	54.7	274	0.098
15KP36	36	10	40	48.90	5	66.1	227	0.103
15KP36A	36	10	40	44.20	5	59.8	251	0.097
15KP40	40	10	44.4	54.30	5	72.8	206	0.103
15KP40A	40	10	44.4	49.10	5	65.8	228	0.098
15KP43	43	10	47.8	58.40	5	76.9	195	0.104
15KP43A	43	10	47.8	52.80	5	69.8	215	0.099
15KP45	45	10	50	61.10	5	80.6	186	0.103
15KP45A	45	10	50	55.30	5	73.2	205	0.099
15KP48	48	10	53.3	65.20	5	85.7	175	0.105
15KP48A	48	10	53.3	58.90	5	77.7	193	0.100
15KP51	51	10	56.7	69.30	5	91.5	164	0.105
15KP51A	51	10	56.7	62.70	5	82.9	181	0.101
15KP54	54	10	60	73.30	5	96.8	155	0.105
15KP54A	54	10	60	66.30	5	87.7	171	0.100
15KP58	58	10	64.4	78.70	5	104.2	144	0.106
15KP58A	58	10	64.4	71.20	5	93.8	160	0.100
15KP60	60	10	66.7	81.50	5	107.1	140	0.105
15KP60A	60	10	66.7	73.70	5	97.4	154	0.101
15KP64	64	10	71.1	86.90	5	115.4	130	0.106

THIS TABLE CONTINUES

NOTES

NOTE 1: ♦ ELECTRICAL CHARACTERISTICS ARE AT A JUNCTION TEMPERATURE (T_J) OF 25°C
NOTE 2: ♦ FOR BIPOLAR DEVICES WITH A V_{BR} OF 10 VOLTS OR LESS, THE I_R LIMIT IS DOUBLED

NOTE 3: ♦ SURGE CURRENT WAVEFORM SHOWN IN FIGURE 2A ON PAGE 3-22
 ♦ PEAK PULSE POWER DERATING SHOWN IN FIGURE 3A ON PAGE 3-22



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15KP SERIES 15000 WATT TRANSIENT SUPPRESSOR SPECIFICATIONS CONTINUED

TABLE 8A - 15KP SERIES TRANSIENT SUPPRESSOR ELECTRICAL SPECIFICATIONS (NOTE 1)

SUSSEX PART NUMBERS	STANDOFF VOLTAGE (V _{SO}) Volts	MAX. REVERSE LEAKAGE (I _R)@V _{SO} (NOTE 2) µA	REVERSE BREAKDOWN VOLTAGE (V _{BR}) @ I _T		TEST CURRENT (I _T) mA	MAX. CLAMPING VOLTAGE (V _{CL}) @ PEAK PULSE CURRENT (I _{PP}) (NOTE 3)		MAX. TEMP. COEFFICIENT OF V _{BR} (%/°C)
			MIN. Volts	MAX. Volts		V _{CL} Volts	I _{PP} Amps	
15KP64A	64	10	71.1	78.60	5	104	144	0.102
15KP70	70	10	77.8	95.10	5	126	119	0.106
15KP70A	70	10	77.8	86.00	5	114	132	0.101
15KP75	75	10	83.3	102.00	5	135	111	0.108
15KP75A	75	10	83.3	92.10	5	122	123	0.101
15KP78	78	10	86.7	106.00	5	140	107	0.108
15KP78A	78	10	86.7	95.80	5	126	119	0.102
15KP85	85	10	94.4	115.00	5	152	99	0.108
15KP85A	85	10	94.4	104.00	5	138	109	0.103
15KP90	90	10	100	122.00	5	160	94	0.108
15KP90A	90	10	100	111.00	5	146	103	0.103
15KP100	100	10	111	136.00	5	179	84	0.109
15KP100A	100	10	111	123.00	5	161	93	0.103
15KP110	110	10	122	149.00	5	195	77	0.108
15KP110A	110	10	122	135.00	5	179	84	0.104
15KP120	120	10	133	163.00	5	214	70	0.109
15KP120A	120	10	133	147.00	5	192	78	0.104
15KP130	130	10	144	176.00	5	231	65	0.109
15KP130A	130	10	144	159.00	5	208	72	0.104
15KP150	150	10	167	204.00	5	268	56	0.109
15KP150A	150	10	167	185.00	5	242	62	0.104
15KP160	160	10	178	218.00	5	288	52	0.109
15KP160A	160	10	178	197.00	5	268	56	0.124
15KP170	170	10	189	231.00	5	306	49	0.109
15KP170A	170	10	189	209.00	5	273	55	0.104
15KP180	180	10	200	244.00	5	319	47	0.109
15KP180A	180	10	200	222.00	5	288	52	0.104
15KP200	200	10	222	272.00	5	357	42	0.109
15KP200A	200	10	222	247.00	5	319	47	0.104
15KP220	220	10	245	299.00	5	417	36	0.109
15KP220A	220	10	245	271.00	5	357	42	0.104

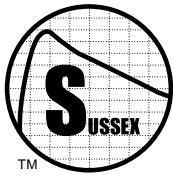
NOTES

NOTE 1: ♦ ELECTRICAL CHARACTERISTICS ARE AT A JUNCTION TEMPERATURE (T_J) OF 25°C

NOTE 3: ♦ SURGE CURRENT WAVEFORM SHOWN IN FIGURE 2A ON PAGE 3-22

NOTE 2: ♦ FOR BIPOLAR DEVICES WITH A V_{BR} OF 10 VOLTS OR LESS, THE I_R LIMIT IS DOUBLED

♦ PEAK PULSE POWER DERATING SHOWN IN FIGURE 3A ON PAGE 3-22



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FIGURE 1A - TYPICAL JUNCTION CAPACITANCE

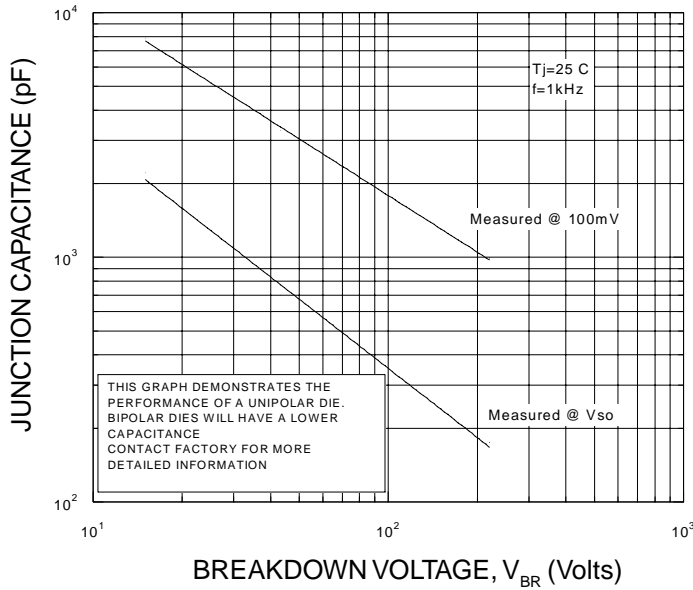


FIGURE 2A - PULSE WAVEFORM

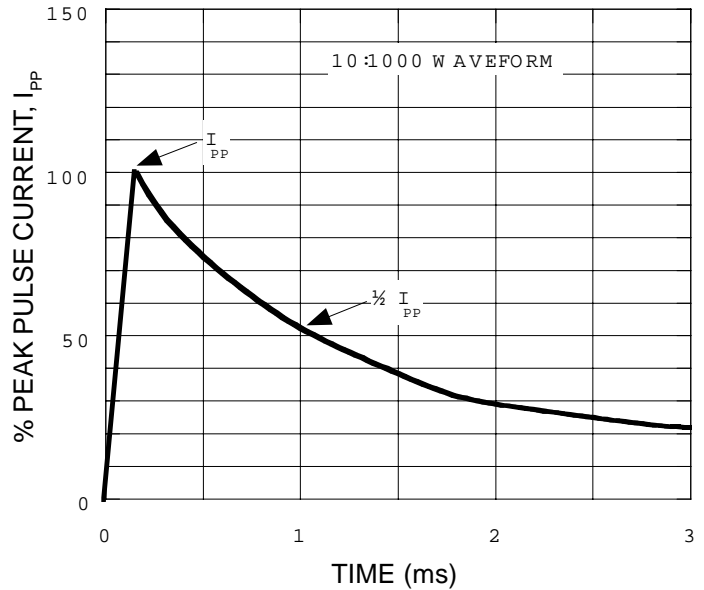
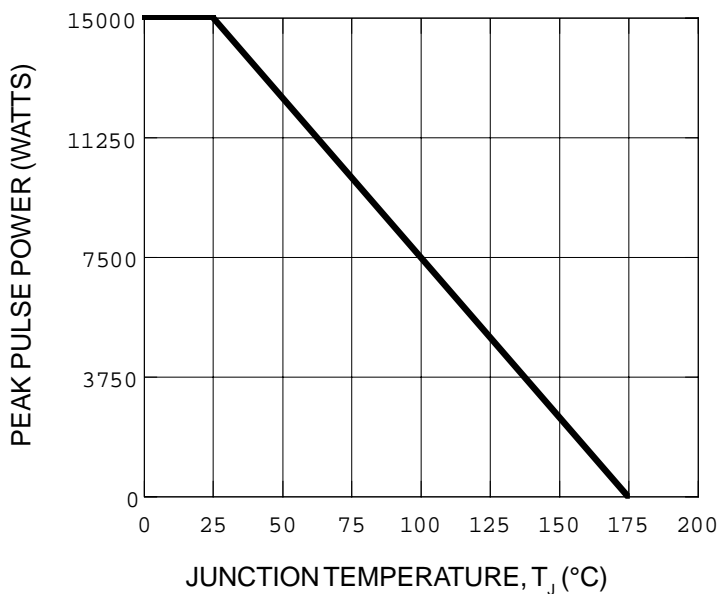
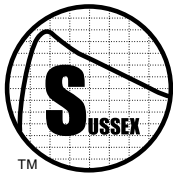


FIGURE 3A - PULSE DERATING CURVE



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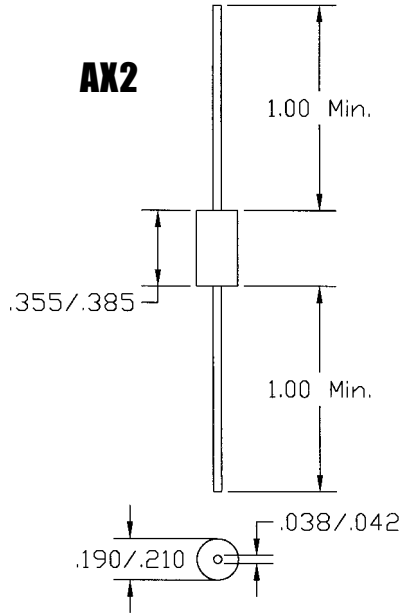
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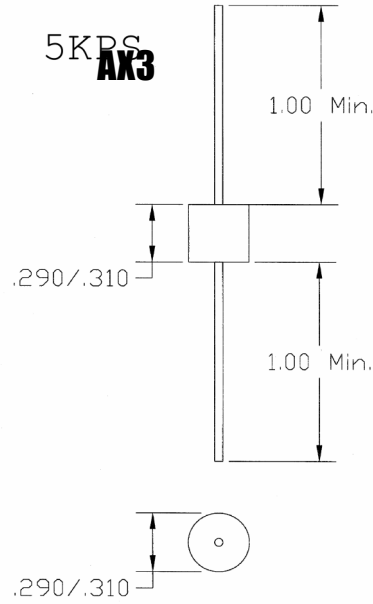
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CUSTOM AXIAL TRANSIENT SUPPRESSOR SPECIFICATIONS GUIDE

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All Dimensions In Inches



All Dimensions In Inches

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- ◆ Storage Temperature: -65 to 175°C
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