



Micro Commercial Components  
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# P5KE5.0 THRU P5KE170A

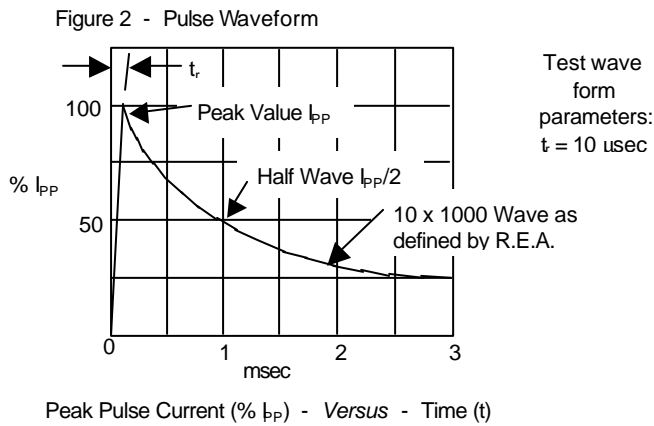
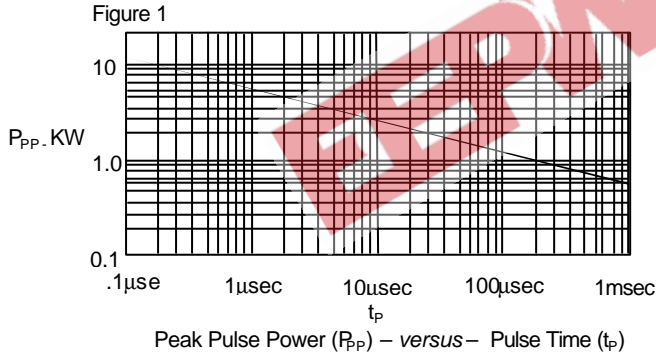
## Features

- Unidirectional And Bidirectional
- Low Inductance
- High Temp Soldering: 250°C for 10 Seconds At Terminals
- For Bidirectional Devices Add "C" To The Suffix Of The Part Number: i.e. P5KE5.0C or P6KE5.0CA for 5% Tolerance Devices

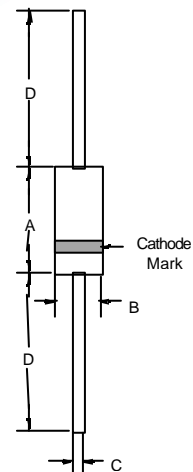
## 500 Watt Transient Voltage Suppressors 5.0 to 170 Volts

## Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- 500 Watt Peak Power
- Response Time  $1 \times 10^{-12}$  Seconds For Unidirectional and  $5 \times 10^{-9}$  For Bidirectional



## DO-41

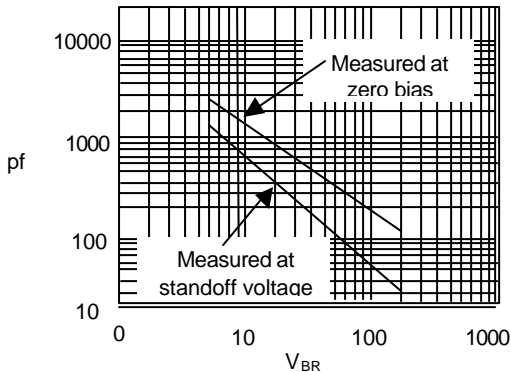


DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.166	.205	4.10	5.20	
B	.080	.107	2.00	2.70	
C	.028	.034	.70	.90	
D	1.000	---	25.40	---	

# P5KE5.0 thru P5KE170A

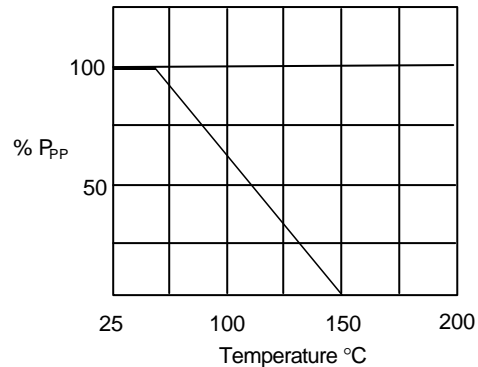


Figure 3 - Typical Capacitance



Typical Capacitance (pf) – versus – Breakdown voltage

Figure 4 - Derating Curve



Peak Pulse Power (% P<sub>PP</sub>) - Versus - Temperature °C

## ELECTRICAL CHARACTERISTICS @25°C

MCC PART NUMBER	BREAKDOWN VOLTAGE $V_{(BR)}$ @ $I_T$ (VOLTS)			TEST CURRENT $I_T$ (mADC)	RATED STANDOFF VOLTAGE $V_{WM}$ (V)	MAXIMUM REVERSE LEAKAGE $I_b$ @ $V_{WM}$ ( $\mu$ A)	MAXIMUM CLAMPING VOLTAGE $V_C$ @ $I_{PP}$ (V)	MAXIMUM PEAK PULSE CURRENT $I_{PP}$ (A)	MAX. TEMP COEFFICIENT OF $V_{(BR)}$ (TA) $-55^\circ\text{C TO } 100^\circ\text{C}$ (% / °C)
	MIN	NOM	MAX						
P5KE5.0	6.4	5.0	7.3	10	5.0	600	9.6	52	.057
P5KE5.0A	6.4	5.0	7.0	10	5.0	600	9.2	54.3	.057
P5KE6.0	6.67	6.0	8.15	10	6.0	600	11.4	43.9	.059
P5KE6.0A	6.67	6.0	7.37	10	6.0	600	10.3	48.5	.059
P5KE6.5	7.22	6.5	8.82	10	6.5	400	12.3	40.7	.061
P5KE6.5A	7.22	6.5	7.98	10	6.5	400	11.2	44.7	.061
P5KE7.0	7.78	7.0	9.51	10	7.0	150	13.3	37.8	.065
P5KE7.0A	7.78	7.0	8.6	10	7.0	150	12.0	41.7	.065
P5KE7.5	8.33	7.5	10.2	1	7.5	50	14.3	35.0	.067
P5KE7.5A	8.33	7.5	9.21	1	7.5	50	12.9	38.8	.067
P5KE8.0	8.89	8.0	10.9	1	8.0	25	15.0	33.3	.070
P5KE8.0A	8.89	8.0	9.8	1	8.0	25	13.6	36.7	.070
P5KE8.5	9.44	8.5	11.5	1	8.5	5	15.9	31.4	.073
P5KE8.5A	9.44	8.5	10.4	1	8.5	5	14.4	34.7	.073
P5KE9.0	10.0	9.0	12.2	1	9.0	1	16.9	29.5	.076
P5KE9.0A	10.0	9.0	11.1	1	9.0	1	15.4	32.5	.076
P5KE10	11.1	10	13.6	1	10	1	18.8	26.6	.078
P5KE10A	11.1	10	12.3	1	10	1	17.0	29.4	.078
P5KE11	12.2	11	14.9	1	11	1	20.1	24.9	.081
P5KE11A	12.2	11	13.5	1	11	1	18.2	27.4	.081
P5KE12	13.3	12	16.3	1	12	1	22.0	22.7	.082
P5KE12A	13.3	12	14.7	1	12	1	19.9	25.1	.082
P5KE13	14.4	13	17.6	1	13	1	23.8	21.0	.084
P5KE13A	14.4	13	15.9	1	13	1	21.5	23.2	.084
P5KE14	15.6	14	19.1	1	14	1	25.8	19.4	.086
P5KE14A	15.6	14	17.2	1	14	1	23.2	21.5	.086
P5KE15	16.7	15	20.4	1	15	1	26.9	18.8	.087
P5KE15A	16.7	15	18.5	1	15	1	24.4	20.6	.087
P5KE16	17.8	16	21.8	1	16	1	28.8	17.6	.088
P5KE16A	17.8	16	19.7	1	16	1	26.0	19.2	.088
P5KE17	18.9	17	23.1	1	17	1	30.5	16.4	.090
P5KE17A	18.9	17	20.9	1	17	1	27.6	18.1	.090
P5KE18	20.0	18	24.4	1	18	1	32.2	15.5	.092
P5KE18A	20.0	18	22.1	1	18	1	29.2	17.2	.092
P5KE20	22.2	20	27.1	1	20	1	35.8	13.9	.093
P5KE20A	22.2	20	24.5	1	20	1	32.4	15.4	.093

# P5KE5.0 thru P5KE170A



## ELECTRICAL CHARACTERISTICS @25°C

MCC PART NUMBER	BREAKDOWN VOLTAGE $V_{(BR)} @ I_T$ (VOLTS)			TEST CURRENT $I_T$ mADC	RATED STANDOFF VOLTAGE $V_{WM}$ V	MAXIMUM REVERSE LEAKAGE $I_b @ V_{WM}$ ( $\mu$ A)	MAXIMUM CLAMPING VOLTAGE $V_C @ I_{PP}$ V	MAXIMUM PEAK PULSE CURRENT $I_{PP}$ A	MAX. TEMP COEFFICIENT OF $V_{BR}$ $V_{(BR)}$ (TA) -55°C TO 100°C % / °C
	MIN	NOM	MAX						
P5KE22	24.4	22	29.8	1	22	1	39.4	12.7	.094
P5KE22A	24.4	22	26.9	1	22	1	35.5	14.1	.094
P5KE24	26.7	24	32.6	1	24	1	43.0	11.6	.096
P5KE24A	26.7	24	29.5	1	24	1	38.9	12.8	.096
P5KE26	28.9	26	35.3	1	26	1	46.6	10.7	.097
P5KE26A	28.9	26	31.9	1	26	1	42.1	11.9	.097
P5KE28	31.1	28	38.0	1	28	1	50.0	9.9	.098
P5KE28A	31.1	28	84.4	1	28	1	45.4	11.0	.098
P5KE30	33.3	30	40.7	1	30	1	53.5	9.3	.099
P5KE30A	33.3	30	36.8	1	30	1	48.4	10.3	.099
P5KE33	36.7	33	44.9	1	33	1	59.0	8.5	.100
P5KE33A	36.7	33	40.6	1	33	1	53.3	9.4	.100
P5KE36	40.0	36	48.9	1	36	1	64.3	7.8	.101
P5KE36A	40.0	36	44.2	1	36	1	58.1	8.6	.101
P5KE40	44.4	40	54.3	1	40	1	71.4	7.0	.101
P5KE40A	44.4	40	49.1	1	40	1	64.5	7.8	.101
P5KE43	47.8	43	58.4	1	43	1	76.7	6.5	.102
P5KE43A	47.8	43	52.8	1	43	1	69.4	7.2	.102
P5KE45	50.0	45	61.1	1	45	1	80.3	6.2	.102
P5KE45A	50.0	45	55.3	1	45	1	72.7	6.9	.102
P5KE48	53.3	48	65.1	1	48	1	85.5	5.8	.103
P5KE48A	53.3	48	58.9	1	48	1	77.4	6.5	.103
P5KE51	56.7	51	69.3	1	51	1	91.1	5.5	.103
P5KE51A	56.7	51	62.7	1	51	1	82.4	6.1	.103
P5KE54	60.0	54	73.3	1	54	1	96.3	5.2	.104
P5KE54A	60.0	54	66.3	1	54	1	87.1	5.7	.104
P5KE58	64.4	58	78.7	1	58	1	103	4.9	.104
P5KE58A	64.4	58	71.2	1	58	1	93.6	5.3	.104
P5KE60	66.7	60	81.5	1	60	1	107	4.7	.104
P5KE60A	66.7	60	73.7	1	60	1	96.8	5.2	.104
P5KE64	71.1	64	86.9	1	64	1	114	4.4	.105
P5KE64A	71.1	64	78.6	1	64	1	103	4.9	.105
P5KE70	77.8	70	95.1	1	70	1	125	4.0	.105
P5KE70A	77.8	70	86	1	70	1	113	4.4	.105
P5KE75	83.3	75	102	1	75	1	134	3.7	.105
P5KE75A	83.3	75	92.1	1	75	1	121	4.1	.105
P5KE78	86.7	78	106	1	78	1	139	3.6	.106
P5KE78A	86.7	78	95.8	1	78	1	126	4.0	.106
P5KE85	94.4	85	115	1	85	1	151	3.3	.106
P5KE85A	94.4	85	104	1	85	1	137	3.6	.106
P5KE90	100	90	122	1	90	1	160	3.1	.107
P5KE90A	100	90	111	1	90	1	146	3.4	.107
P5KE100	111	100	136	1	100	1	179	2.8	.107
P5KE100A	111	100	123	1	100	1	162	3.1	.107
P5KE110	122	110	149	1	110	1	196	2.6	.107
P5KE110A	122	110	135	1	110	1	177	2.8	.107
P5KE120	133	120	163	1	120	1	214	2.3	.107
P5KE120A	133	120	147	1	120	1	193	2.0	.107
P5KE130	144	130	176	1	130	1	231	2.2	.108
P5KE130A	144	130	159	1	130	1	209	2.4	.108
P5KE150	167	150	204	1	150	1	268	1.9	.108
P5KE150A	167	150	185	1	150	1	243	2.1	.108
P5KE160	178	160	218	1	160	1	287	1.7	.108
P5KE160A	178	160	197	1	160	1	259	1.9	.108
P5KE170	189	170	231	1	170	1	304	1.6	.108
P5KE170A	189	170	209	1	170	1	275	1.8	.108