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## P4KE6.8 THRU P4KE400A

### 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. P4KE6.8C or P4KE6.8CA for 5% Tolerance Devices

### 400 Watt Transient Voltage Suppressors 6.8 to 400 Volts

### Maximum Ratings

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

Figure 1

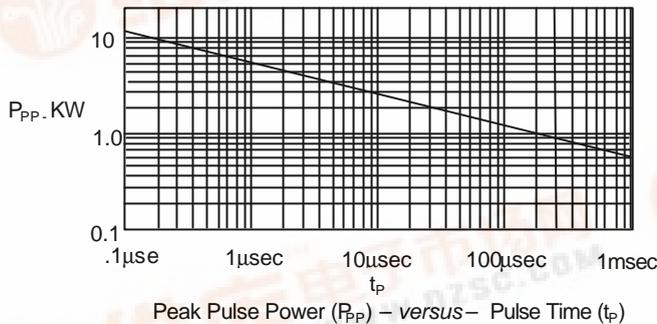
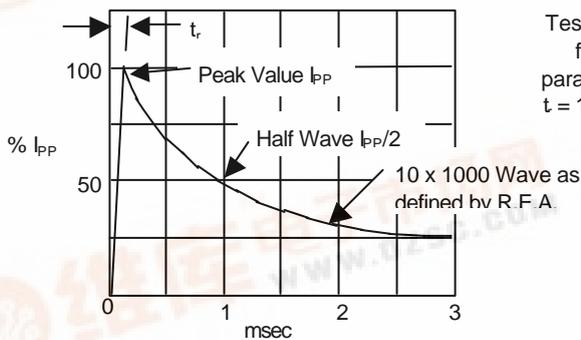
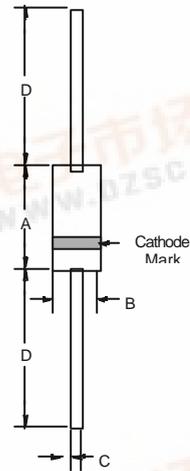


Figure 2 - Pulse Waveform



Peak Pulse Current (%  $I_p$ ) - Versus - Time (t)

### DO-41



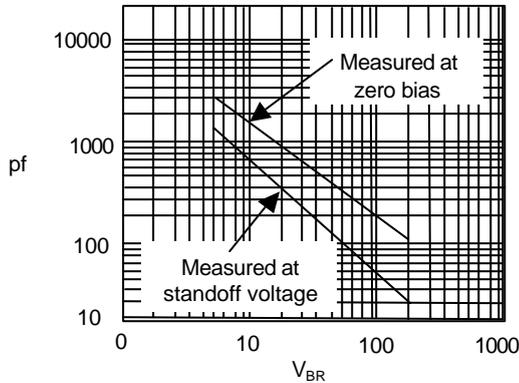
DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.166	.205	4.10	5.20	
B	.080	.107	2.00	2.70	
C	.028	.034	.70	.90	
D	1.000	---	25.40	---	



# P4KE6.8 thru P4KE400A

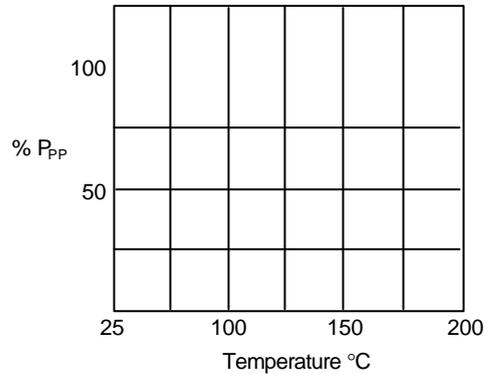


Figure 3 - Typical Capacitance



Typical Capacitance (pf) - versus - Breakdown voltage ( $V_{BR}$ )

Figure 4 - Derating Curve



Peak Pulse Power (%  $P_{PP}$ ) - Versus - Temperature  $^{\circ}C$

## 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 $I_D$ @ $V_{WM}$ ( $\mu A$ )	MAXIMUM CLAMPING VOLTAGE $V_C$ @ $I_{PP}$ (V)	MAXIMUM PEAK PULSE CURRENT $I_{PP}$ (A)	MAX. TEMP COEFFICIENT OF $V_{BR}$ $V_{(BR)}$ (TA) $-55^{\circ}C$ TO $100^{\circ}C$ (% / $^{\circ}C$ )
	MIN	NOM	MAX						
P4KE6.8	6.12	6.8	7.48	10	5.50	500	10.8	37	.057
P4KE6.8A	6.45	6.8	7.14	10	5.80	500	10.5	38	.057
P4KE7.5	6.75	7.5	8.25	10	6.05	200	11.7	34	.061
P4KE7.5A	7.13	7.5	7.88	10	6.40	200	11.3	35	.061
P4KE8.2	7.38	8.2	9.02	10	6.63	100	12.5	32	.065
P4KE8.2A	7.79	8.2	8.61	10	7.02	100	12.1	33	.065
P4KE9.1	8.19	9.1	10.0	1	7.37	20	13.8	29	.068
P4KE9.1A	8.65	9.1	9.55	1	7.78	20	13.4	30	.068
P4KE10	9.00	10	11.0	1	8.10	20	15.0	27	.073
P4KE10A	9.50	10	10.5	1	8.55	5	14.5	28	.073
P4KE11	9.90	11	12.1	1	8.92	2	16.2	25	.075
P4KE11A	10.5	11	11.6	1	9.40	2	15.6	26	.075
P4KE12	10.8	12	13.2	1	9.72	2	17.3	23	.078
P4KE12A	11.4	12	12.6	1	10.2	2	16.7	24	.078
P4KE13	11.7	13	14.3	1	10.5	2	19.0	21	.081
P4KE13A	12.4	13	13.7	1	11.1	2	18.2	22	.081
P4KE15	13.5	15	16.5	1	12.1	2	22.0	18	.084
P4KE15A	14.3	15	15.8	1	12.8	2	21.2	19	.084
P4KE16	14.4	16	17.6	1	12.9	2	23.5	17	.086
P4KE16A	15.2	16	16.8	1	13.6	2	22.5	18	.086
P4KE18	16.2	18	19.8	1	14.5	2	26.5	15	.088
P4KE18A	17.1	18	18.0	1	15.3	2	25.2	16	.088
P4KE20	18.0	20	22.0	1	16.2	2	29.1	14	.090
P4KE20A	19.0	20	21.0	1	17.1	2	27.7	14.5	.090
P4KE22	19.8	22	24.2	1	17.8	2	31.9	12.5	.092
P4KE22A	20.9	22	23.1	1	18.8	2	30.6	13	.092
P4KE24	21.6	24	26.4	1	19.4	2	34.7	11.5	.094
P4KE24A	22.8	24	25.2	1	20.5	2	33.2	12	.094
P4KE27	24.3	27	29.7	1	21.8	2	39.1	10	.096
P4KE27A	25.7	27	28.4	1	23.1	2	37.5	11	.096
P4KE30	27.0	30	33.0	1	24.3	2	43.5	9.0	.097
P4KE30A	28.5	30	31.5	1	25.6	2	41.4	9.5	.097
P4KE33	29.7	33	36.3	1	26.8	2	47.7	8.5	.098
P4KE33A	31.4	33	34.7	1	28.2	2	45.7	9.0	.098
P4KE36	32.4	36	39.6	1	29.1	2	52.0	7.5	.099
P4KE36A	34.2	36	37.8	1	30.8	2	49.9	8.0	.099

# P4KE6.8 thru P4KE400A



## ELECTRICAL CHARACTERISTICS @25°C

MCC PART NUMBER	BREAKDOWN VOLTAGE $V_{(BR)} @ I_T$ (VOLTS)			TEST CURRENT $I_T$	RATED STANDOFF VOLTAGE $V_{WM}$	MAXIMUM REVERSE LEAKAGE $I_b @ V_{WM}$	MAXIMUM CLAMPING VOLTAGE $V_C @ I_{PP}$	MAXIMUM PEAK PULSE CURRENT $I_{PP}$	MAX. TEMP COEFFICIENT OF $V_{BR}$ $V_{(BR)} (TA)$ -55°C TO 100°C
	MIN	NOM	MAX						
P4KE39	35.1	39	42.9	1	31.6	2	56.4	7.0	.100
P4KE39A	37.1	39	41.0	1	33.3	2	53.9	7.5	.100
P4KE43	38.7	43	47.3	1	34.8	2	61.9	6.5	.101
P4KE43A	40.9	43	45.2	1	36.8	2	59.3	7.0	.101
P4KE47	42.3	47	51.7	1	38.1	2	67.8	5.9	.101
P4KE47A	44.7	47	49.4	1	40.2	2	64.8	6.2	.101
P4KE51	45.9	51	56.1	1	41.3	2	73.5	5.4	.102
P4KE51A	48.5	51	53.6	1	43.6	2	70.1	5.7	.102
P4KE56	50.4	56	61.6	1	45.4	2	80.5	5.0	.103
P4KE56A	53.2	56	58.8	1	47.8	2	77.0	5.2	.103
P4KE62	55.8	62	68.2	1	50.2	2	89.0	4.5	.104
P4KE62A	58.9	62	65.1	1	53.0	2	85.0	4.7	.104
P4KE68	61.2	68	74.8	1	55.1	2	98.0	4.1	.104
P4KE68A	64.6	68	71.4	1	58.1	2	92.0	4.4	.104
P4KE75	67.5	75	82.5	1	60.7	2	108	3.7	.105
P4KE75A	71.3	75	78.8	1	64.1	2	103	3.9	.105
P4KE82	73.8	82	90.2	1	66.4	2	118	3.4	.105
P4KE82A	77.9	82	86.1	1	70.1	2	113	3.5	.105
P4KE91	81.9	91	100	1	73.7	2	131	3.1	.106
P4KE91A	86.5	91	95.5	1	77.8	2	125	3.2	.106
P4KE100	90.0	100	110	1	81.0	2	144	2.8	.106
P4KE100A	95.0	100	105	1	85.5	2	137	2.9	.106
P4KE110	99.0	110	121	1	89.2	2	158	2.5	.107
P4KE110A	105	110	116	1	94.0	2	152	2.6	.107
P4KE120	108	120	132	1	97.2	2	173	2.3	.107
P4KE120A	114	120	126	1	102	2	165	2.4	.107
P4KE130	117	130	143	1	105	2	187	2.1	.107
P4KE130A	124	130	137	1	111	2	179	2.2	.107
P4KE150	135	150	165	1	121	2	215	1.9	.108
P4KE150A	143	150	158	1	128	2	207	1.95	.108
P4KE160	144	160	176	1	130	2	230	1.7	.108
P4KE160A	152	160	168	1	136	2	219	1.8	.108
P4KE170	153	170	187	1	138	2	244	1.6	.108
P4KE170A	162	170	179	1	145	2	234	1.7	.108
P4KE180	162	180	198	1	146	2	258	1.5	.108
P4KE180A	171	180	189	1	154	2	246	1.6	.108
P4KE200	180	200	220	1	162	2	287	1.4	.108
P4KE200A	190	200	210	1	171	2	274	1.5	.108
P4KE220	198	220	242	1	175	2	344	1.0	.110
P4KE220A	209	220	231	1	185	2	328	1.0	.110
P4KE250	225	250	275	1	202	2	360	1.0	.110
P4KE250A	237	250	263	1	214	2	344	1.0	.110
P4KE300	270	300	330	1	243	2	430	1.0	.110
P4KE300A	285	300	315	1	256	2	414	1.0	.110
P4KE350	315	350	385	1	284	2	504	1.0	.110
P4KE350A	333	350	368	1	300	2	482	1.0	.110
P4KE400	360	400	440	1	324	2	574	1.0	.110
P4KE400A	380	400	420	1	342	2	548	1.0	.110