

P4KE6.8(C)A~P4KE440(C)A

400W Transient Voltage Suppressors

Features

- ◆ Optimized for LAN protection applications
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ 400w peak pulse power capability
- ◆ Excellent clamping capability
- ◆ Low incremental surge resistance
- ◆ Fast response time: typically less than 1.0ps from 0v to V_{BRmin}
- ◆ High temperature soldering guaranteed: 260°C/10S at terminals

Mechanical Data

Case : Molded plastic body

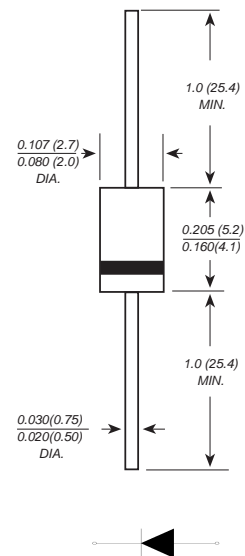
Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.0088 ounce, 0.25 grams

DO-41



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	SYMBOLS	VALUE	UNITS
Peak pulse power dissipation with a 10/1000 μ s wavetorm(NOTE 1,2,4,FIG.1)	P_{PPM}	Minimum 400	Watts
Peak forward surge current (Note 3)	I_{FSM}	40.0	Amps
Peak pulse current with a 10/1000 μ s waveform(NOTE 1,2,5)Fig.2	I_{PPM}	See Table 1	Amps
Steady State Power Dissipation(Note 4)	$P_{M(AV)}$	1.0	Watts
Operating junction and storage temperature range	T_{STG}, T_J	-55 to + 150	°C

Notes:1.Non-repetitive current pulse,per Fig.3 and derated above $T_A=25^\circ\text{C}$ per Fig.2

2.Mounted on 5.0mm copper pads to each terminal

3.Measured on 8.3ms single half sine-wine.For uni-directional devices only.

4.Lead temperature at $75^\circ\text{C}=T_L$

5.Peak pulse power waveform is 10/1000 μ s

Device Type	Breakdown Voltage $V_{(BR)}$ (Volts)(NOTES 1)		Test Current I_T (mA)	Stand-off Voltage V_{WM} (Volts)	Maximum Reverse Leakage at V_{WM} I_D (NOTE3)(μ A)	Maximum Peak Pulse Reverse Current I_{PPM} (NOTE2) (Amps)	Maximum Clamping Voltage at I_{PPM} V_c (Volts)	Maximum Temperature Coefficient of $V_{(BR)}$ (%/°C)
	MIN	MAX						
P4KE6.8(C)	6.12	7.48	10.0	5.50	1000.0	37.0	10.8	0.057
P4KE6.8(C)A	6.45	7.14	10.0	5.80	1000.0	38.1	10.5	0.057
P4KE7.5(C)	6.75	8.25	10.0	6.05	500.0	34.2	11.7	0.061
P4KE7.5(C)A	7.13	7.88	10.0	6.40	500.0	35.4	11.3	0.061
P4KE8.2(C)	7.38	9.02	10.0	6.63	200.0	32.0	12.5	0.065
P4KE8.2(C)A	7.79	8.61	10.0	7.02	200.0	33.1	12.1	0.065
P4KE9.1(C)	8.19	10.0	1.0	7.37	50.0	29.0	13.8	0.068
P4KE9.1(C)A	8.65	9.55	1.0	7.78	50.0	29.9	13.4	0.068
P4KE10(C)	9.00	11.0	1.0	8.10	10.0	26.7	15.0	0.073
P4KE10(C)A	9.50	10.5	1.0	8.55	10.0	27.6	14.5	0.073
P4KE11(C)	9.90	12.1	1.0	8.92	5.0	24.7	16.2	0.075
P4KE11(C)A	10.5	11.6	1.0	9.40	5.0	25.6	15.6	0.075
P4KE12(C)	10.8	13.2	1.0	9.72	5.0	23.1	17.3	0.078
P4KE12(C)A	11.4	12.6	1.0	10.2	5.0	24.0	16.7	0.078
P4KE13(C)	11.7	14.3	1.0	10.5	5.0	21.1	19.0	0.081
P4KE13(C)A	12.4	13.7	1.0	11.1	5.0	22.0	18.2	0.081
P4KE15(C)	13.5	16.5	1.0	12.1	5.0	18.2	22.0	0.084
P4KE15(C)A	14.3	15.8	1.0	12.8	5.0	18.9	21.2	0.084
P4KE16(C)	14.4	17.6	1.0	12.9	5.0	17.0	23.5	0.086
P4KE16(C)A	15.2	16.8	1.0	13.6	5.0	17.8	22.5	0.086
P4KE18(C)	16.2	19.8	1.0	14.5	5.0	15.1	26.5	0.088
P4KE18(C)A	17.1	18.9	1.0	15.3	5.0	15.9	25.5	0.088
P4KE20(C)	18.0	22.0	1.0	16.2	5.0	13.7	29.1	0.090
P4KE20(C)A	19.0	21.0	1.0	17.1	5.0	14.4	27.7	0.090
P4KE22(C)	19.8	24.2	1.0	17.8	5.0	12.5	31.9	0.092
P4KE22(C)A	20.9	23.1	1.0	18.8	5.0	13.1	30.6	0.092
P4KE24(C)	21.6	26.4	1.0	19.4	5.0	11.5	34.7	0.094
P4KE24(C)A	22.8	25.2	1.0	20.5	5.0	12.0	33.2	0.094
P4KE27(C)	24.3	29.7	1.0	21.8	5.0	10.2	39.1	0.096
P4KE27(C)A	25.7	28.4	1.0	23.1	5.0	10.7	37.5	0.096
P4KE30(C)	27.0	33.0	1.0	24.3	5.0	9.2	43.5	0.097
P4KE30(C)A	28.5	31.5	1.0	25.6	50.	9.7	41.4	0.097
P4KE33(C)	29.7	36.3	1.0	26.8	5.0	8.4	47.7	0.098
P4KE33(C)A	31.4	34.7	1.0	28.2	5.0	8.8	45.7	0.098
P4KE36(C)	32.4	39.6	1.0	29.1	5.0	7.7	52.0	0.099
P4KE36(C)A	34.2	37.8	1.0	30.8	5.0	8.0	49.9	0.099
P4KE39(C)	35.1	42.9	1.0	31.6	5.0	7.1	56.4	0.100
P4KE39(C)A	37.1	41.0	1.0	33.3	5.0	7.4	53.9	0.100
P4KE43(C)	38.7	47.3	1.0	34.8	5.0	6.5	61.9	0.101
P4KE43(C)A	40.9	45.2	1.0	36.8	5.0	6.7	59.3	0.101
P4KE47(C)	42.3	51.7	1.0	38.1	5.0	5.9	67.8	0.101
P4KE47(C)A	44.7	49.4	1.0	40.2	5.0	6.2	64.8	0.101
P4KE51(C)	45.9	56.1	1.0	41.3	5.0	5.4	73.5	0.102
P4KE51(C)A	48.5	53.6	1.0	43.6	5.0	5.7	70.1	0.102
P4KE56(C)	50.4	61.6	1.0	45.4	5.0	5.0	80.5	0.103
P4KE56(C)A	53.2	58.8	1.0	47.8	5.0	5.2	77.0	0.103

Device Type	Breakdown Voltage $V_{(BR)}$ (Volts)(NOTES 1)		Test Current I_T (mA)	Stand-off Voltage V_{WM} (Volts)	Maximum Reverse Leakage at V_{WM} I_D (NOTE3)(μ A)	Maximum Peak Pulse Reverse Current I_{PPM} (NOTE2) (Amps)	Maximum Clamping Voltage at I_{PPM} V_C (Volts)	Maximum Temperature Coefficient of $V_{(BR)}$ (%/°C)
	MIN	MAX						
P4KE62(C)	55.8	66.8	1.0	50.2	5.0	4.5	89.0	0.104
P4KE62(C)A	58.9	65.1	1.0	53.0	5.0	4.7	85.0	0.104
P4KE68(C)	61.2	74.8	1.0	55.1	5.0	4.1	98.0	0.104
P4KE68(C)A	64.6	71.4	1.0	58.1	5.0	4.3	92.0	0.104
P4KE75(C)	67.5	82.5	1.0	60.7	5.0	3.7	108	0.105
P4KE75(C)A	71.3	78.8	1.0	64.1	5.0	3.9	103	0.105
P4KE82(C)	73.8	90.2	1.0	66.4	5.0	3.4	118	0.105
P4KE82(C)A	77.9	86.1	1.0	70.1	5.0	3.5	113	0.105
P4KE91(C)	81.9	100	1.0	73.7	5.0	3.1	131	0.106
P4KE91(C)A	86.5	95.5	1.0	77.8	5.0	3.2	125	0.106
P4KE100(C)	90.0	110	1.0	81.0	5.0	2.8	144	0.106
P4KE100(C)A	95.0	105	1.0	85.5	5.0	2.9	137	0.106
P4KE110(C)	99.0	121	1.0	89.2	5.0	2.5	158	0.107
P4KE110(C)A	105	116	1.0	94.0	5.0	2.6	152	0.107
P4KE120(C)	108	132	1.0	97.2	5.0	2.3	173	0.107
P4KE120(C)A	114	126	1.0	102	5.0	2.4	165	0.107
P4KE130(C)	117	143	1.0	105	5.0	2.1	187	0.107
P4KE130(C)A	124	137	1.0	111	5.0	2.2	179	0.107
P4KE150(C)	135	165	1.0	121	5.0	1.9	215	0.108
P4KE150(C)A	143	158	1.0	128	5.0	1.9	207	0.108
P4KE160(C)	144	176	1.0	130	5.0	1.7	230	0.108
P4KE160(C)A	152	168	1.0	136	5.0	1.8	219	0.108
P4KE170(C)	153	187	1.0	138	5.0	1.6	244	0.108
P4KE170(C)A	162	179	1.0	145	5.0	1.7	234	0.108
P4KE180(C)	162	198	1.0	146	5.0	1.6	258	0.108
P4KE180(C)A	171	189	1.0	154	5.0	1.6	246	0.108
P4KE200(C)	180	220	1.0	162	5.0	1.4	287	0.108
P4KE200(C)A	190	210	1.0	171	5.0	1.5	274	0.108
P4KE220(C)	198	242	1.0	175	5.0	1.2	344	0.108
P4KE220(C)A	209	231	1.0	185	5.0	1.2	328	0.108
P4KE250(C)	225	275	1.0	202	5.0	1.1	360	0.110
P4KE250(C)A	237	267	1.0	214	5.0	1.2	344	0.110
P4KE300(C)	270	330	1.0	243	5.0	0.93	430	0.110
P4KE300(C)A	285	315	1.0	256	5.0	1.0	414	0.110
P4KE350(C)	315	385	1.0	284	5.0	0.79	504	0.110
P4KE350(C)A	332	368	1.0	300	5.0	0.83	482	0.110
P4KE400(C)	360	440	1.0	324	5.0	0.70	574	0.110
P4KE400(C)A	380	420	1.0	342	5.0	0.73	548	0.110
P4KE440(C)	396	484	1.0	356	5.0	0.63	631	0.110
P4KE440(C)A	418	462	1.0	376	5.0	0.66	602	0.110

Ratings And Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

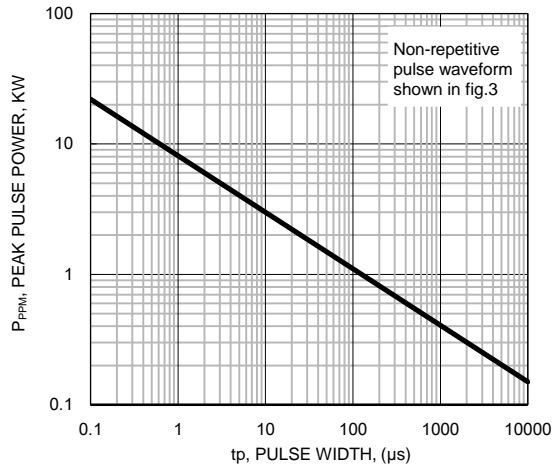


Fig.2 Pulse Derating Curve

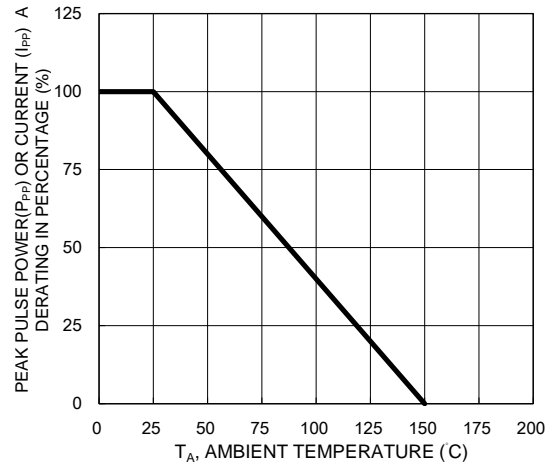


Fig.3 Claming Power Pulse Waveform

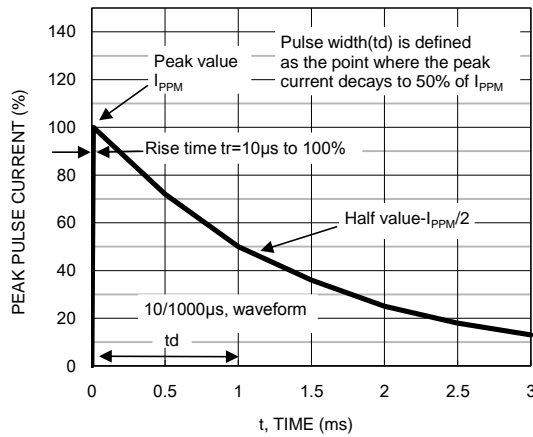


Fig.4 Maximum Non-repetitive Forward Surge Current

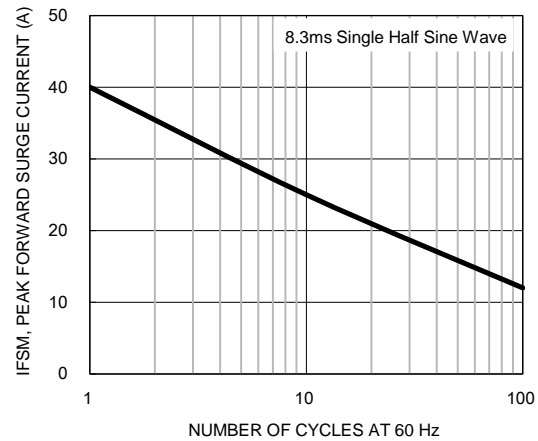


Fig.5 Typical Junction Capacitance

