

查询P4KE27A供应商

捷多邦, 专业PCB打样工厂, 24小时
加急出货

Microsemi Corp.
The diode experts

SANTA ANA, CA

SCOTTSDALE, AZ
For more information call:
(602) 941-6300

**P4KE6.8 thru
P4KE400**

Features

- ECONOMICAL SERIES
- AVAILABLE IN BOTH UNIDIRECTIONAL AND BIDIRECTIONAL CONSTRUCTION
- 6.8 TO 400 VOLTS AVAILABLE
- 400 WATTS PEAK PULSE POWER DISSIPATION
- QUICK RESPONSE

Maximum Ratings

Peak Pulse Power Dissipation at 25°C: 400 Watts

Steady State Power Dissipation: 1.0 Watt at $T_L = +75^\circ\text{C}$ at 3/8" Lead Length

t_{clamping} (0 volts to V_{BR} Min.): Unidirectional $< 1 \times 10^{-12}$ seconds;

Bidirectional $< 5 \times 10^{-9}$ seconds.

Operating and Storage Temperature: -65° to $+175^\circ\text{C}$

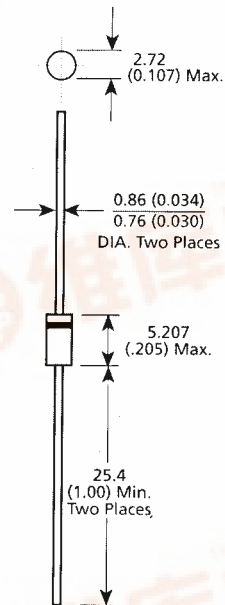
Application

This TAZ is an economical molded product frequently used for automotive applications to protect voltage sensitive components from destruction or partial degradation. The response time for unipolar clamping action is virtually instantaneous (1×10^{-12} seconds). They have a peak pulse power rating of 400 watts for 1 ms as depicted in Figures 1 and 2. Microsemi also offers various other TAZ devices to meet higher and lower power demands and special applications.

Electrical Characteristics at 25°C

TYPE NUMBER	RATED STAND-OFF VOLTAGE V_{WM}	BREAKDOWN VOLTAGE V_{BR}		I_{T} mA	MAXIMUM CLAMPING VOLTAGE $V_{\text{C MAX. @ } I_{\text{pp}}}$	MAXIMUM REVERSE LEAKAGE CURRENT $I_{\text{R}} @ V_{\text{WM}}$	MAXIMUM PEAK PULSE CURRENT I_{pp}	MAXIMUM TEMPERATURE COEFFICIENT OF V_{BR} %/°C
		MIN.	MAX.					
	V	V_{DC}	V_{DC}		V	μADC	A	% / °C
P4KE6.8	5.50	6.12	7.48	10	10.8	500	37	.057
P4KE6.8A	5.80	6.45	7.14	10	10.5	500	38	.057
P4KE7.5	6.05	6.75	8.25	10	11.7	200	34	.061
P4KE7.5A	6.40	7.13	7.88	10	11.3	200	35	.061
P4KE8.2	6.63	7.38	9.02	10	12.5	100	32	.065
P4KE8.2A	7.02	7.79	8.61	10	12.1	100	33	.065
P4KE9.1	7.37	8.19	10.0	1	13.8	20	29	.068
P4KE9.1A	7.78	8.65	9.55	1	13.4	20	30	.068
P4KE10	8.10	9.00	11.0	1	15.0	20	27	.073
P4KE10A	8.55	9.50	10.5	1	14.5	5	28	.073
P4KE11	8.92	9.90	12.1	1	16.2	2	25	.075
P4KE11A	9.40	10.5	11.6	1	15.6	2	26	.075
P4KE12	9.72	10.8	13.2	1	17.3	2	23	.078
P4KE12A	10.2	11.4	12.6	1	16.7	2	24	.078
P4KE13	10.5	11.7	14.3	1	19.0	2	21	.081
P4KE13A	11.1	12.4	13.7	1	18.2	2	22	.081
P4KE15	12.1	13.5	16.5	1	22.0	2	18	.084
P4KE15A	12.8	14.3	15.8	1	21.2	2	19	.084
P4KE16	12.9	14.4	17.6	1	23.5	2	17	.086
P4KE16A	13.6	15.2	16.8	1	22.5	2	18	.086
P4KE18	14.5	16.2	19.8	1	26.5	2	15	.088
P4KE18A	15.3	17.1	18.0	1	25.2	2	16	.088
P4KE20	16.2	18.0	22.0	1	29.1	2	14	.090
P4KE20A	17.1	19.0	21.0	1	27.7	2	14.5	.090
P4KE22	17.8	19.8	24.2	1	31.9	2	12.5	.092
P4KE22A	18.8	20.9	23.1	1	30.6	2	13	.092
P4KE27A	19.4	21.6	26.4	1	34.7	2	11.5	.094
P4KE27A	20.5	22.8	25.2	1	33.2	2	12	.094
P4KE27A	21.8	24.3	29.7	1	39.1	2	10	.096
P4KE27A	23.1	25.7	28.4	1	37.5	2	11	.096
P4KE30	24.3	27.0	33.0	1	43.5	2	9.0	.097
P4KE30A	25.6	28.5	31.5	1	41.4	2	9.5	.097
P4KE33	26.8	29.7	36.3	1	47.7	2	8.5	.098
P4KE33A	28.2	31.4	34.4	1	45.7	2	9.0	.098

TRANSIENT ABSORPTION ZENER



NOTE: Cathode indicated by band.
All dimensions in millimeters (inches)

Mechanical Characteristics

CASE: Void Free Transfer
Molded Thermosetting
Plastic.

FINISH: Plated Copper
Readily Solderable.

POLARITY: Band Denotes
Cathode. Bidirectional Not
Marked.

WEIGHT: 0.7 Gram (Appx.).

MOUNTING POSITION:

P4KE6.8 thru P4KE400

Electrical Characteristics at 25°C

TYPE NUMBER	RATED STAND-OFF VOLTAGE		BREAKDOWN VOLTAGE		MAXIMUM CLAMPING VOLTAGE V_C MAX. @ I_{PP}	MAXIMUM REVERSE LEAKAGE CURRENT I_D @ V_{WM}	MAXIMUM PEAK PULSE CURRENT I_{PP}	MAXIMUM TEMPERATURE COEFFICIENT OF $\sim V_{(BR)}$	
	V_{WM}		$V_{(BR)}$						I_T mA
	V	V _{DC}	MIN.	MAX.					
P4KE39	31.6	35.1	42.9	1	56.4	2	7.0	.100	
P4KE39A	33.3	37.1	41.0	1	53.9	2	7.5	.100	
P4KE43	34.8	38.7	47.3	1	61.9	2	6.5	.101	
P4KE43A	36.8	40.9	45.2	1	59.3	2	7.0	.101	
P4KE47	38.1	42.3	51.7	1	67.8	2	5.9	.101	
P4KE47A	40.2	44.7	49.4	1	64.8	2	6.2	.101	
P4KE51	41.3	45.9	56.1	1	73.5	2	5.4	.102	
P4KE51A	43.6	48.5	53.6	1	70.1	2	5.7	.102	
P4KE56	45.4	50.4	61.6	1	80.5	2	5.0	.103	
P4KE56A	47.8	53.2	58.8	1	77.0	2	5.2	.103	
P4KE62	50.2	55.8	68.2	1	89.0	2	4.5	.104	
P4KE62A	53.0	58.9	65.1	1	85.0	2	4.7	.104	
P4KE68	55.1	61.2	74.8	1	98.0	2	4.1	.104	
P4KE68A	58.1	64.6	71.4	1	92.0	2	4.4	.104	
P4KE75	60.7	67.5	82.5	1	108.0	2	3.7	.105	
P4KE75A	64.1	71.3	78.8	1	103.0	2	3.9	.105	
P4KE87	66.4	73.8	90.2	1	118.0	2	3.4	.105	
P4KE87A	70.1	77.9	86.1	1	113.0	2	3.5	.105	
P4KE91	73.7	81.9	100.0	1	131.0	2	3.1	.106	
P4KE91A	77.8	86.5	95.5	1	125.0	2	3.2	.106	
P4KE100	81.0	90.0	110.0	1	144.0	2	2.8	.106	
P4KE100A	85.5	95.0	105.0	1	137.0	2	2.9	.106	
P4KE110	89.2	99.0	121.0	1	158.0	2	2.5	.107	
P4KE110A	94.0	105.0	116.0	1	152.0	2	2.6	.107	
P4KE120	97.2	108.0	132.0	1	173.0	2	2.3	.107	
P4KE120A	102.0	114.0	126.0	1	165.0	2	2.4	.107	
P4KE130	105.0	117.0	143.0	1	187.0	2	2.1	.107	
P4KE130A	111.0	124.0	137.0	1	179.0	2	2.2	.107	
P4KE150	121.0	135.0	165.0	1	215.0	2	1.9	.108	
P4KE150A	128.0	143.0	158.0	1	207.0	2	1.95	.108	
P4KE160	130.0	144.0	176.0	1	230.0	2	1.7	.108	
P4KE160A	136.0	152.0	168.0	1	219.0	2	1.8	.108	
P4KE170	138.0	153.0	187.0	1	244.0	2	1.6	.108	
P4KE170A	145.0	162.0	179.0	1	234.0	2	1.7	.108	
P4KE180	146.0	162.0	198.0	1	258.0	2	1.5	.108	
P4KE180A	154.0	171.0	189.0	1	246.0	2	1.6	.108	
P4KE200	162.0	180.0	220.0	1	287.0	2	1.4	.108	
P4KE200A	171.0	190.0	210.0	1	274.0	2	1.5	.108	
P4KE220	175.0	198.0	242.0	1	344.0	2	1.0	.110	
P4KE220A	185.0	209.0	231.0	1	328.0	2	1.0	.110	
P4KE250	202.0	225.0	275.0	1	360.0	2	1.0	.110	
P4KE250A	214.0	237.0	263.0	1	344.0	2	1.0	.110	
P4KE300	243.0	270.0	330.0	1	430.0	2	1.0	.110	
P4KE300A	256.0	285.0	315.0	1	414.0	2	1.0	.110	
P4KE350	284.0	315.0	385.0	1	504.0	2	1.0	.110	
P4KE350A	300.0	333.0	368.0	1	482.0	2	1.0	.110	
P4KE400	324.0	360.0	440.0	1	574.0	2	1.0	.110	
P4KE400A	342.0	380.0	420.0	1	548.0	2	1.0	.110	

Forward Voltage (V_f) @ 30 amps peak, 8.3 ms sine wave equal to 3.5 volts maximum for P4KE6.8 to 200. (Excluding Bidirectional)
 For bidirectional construction, indicate a C or CA suffix after part number, i.e. P4KE170CA.

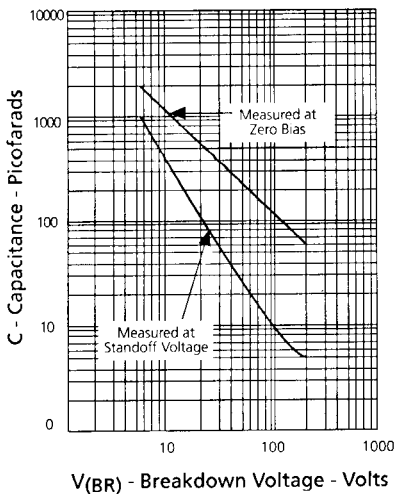


FIGURE 3

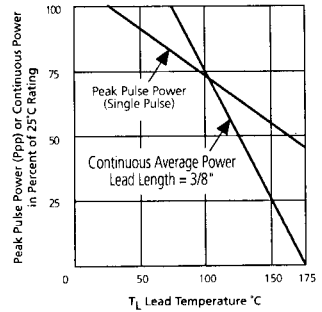


FIGURE 1
Derating Curve

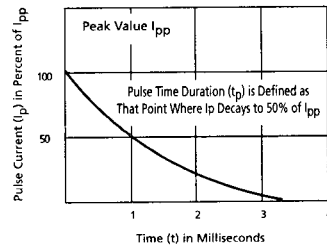


FIGURE 2
Pulse Waveform For Exponential Surge

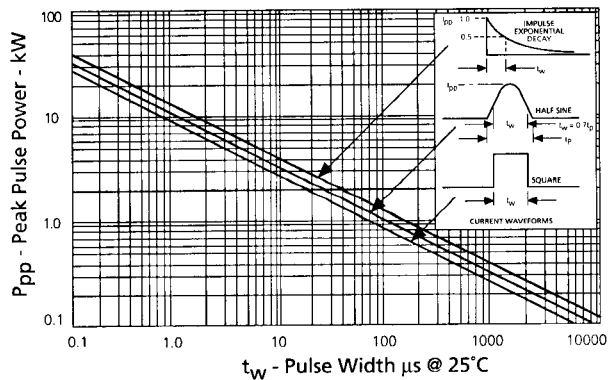


FIGURE 4
Peak Pulse Power vs Pulse Time

Symbols and Abbreviations

- V_{WM} = Rated Stand-Off Voltage
- I_{PP} = Peak Pulse Current
- P_{PP} = Peak Pulse Power
- V_C (MAX) = Maximum Clamping Voltage