

## P6KE Series – 600 Watt



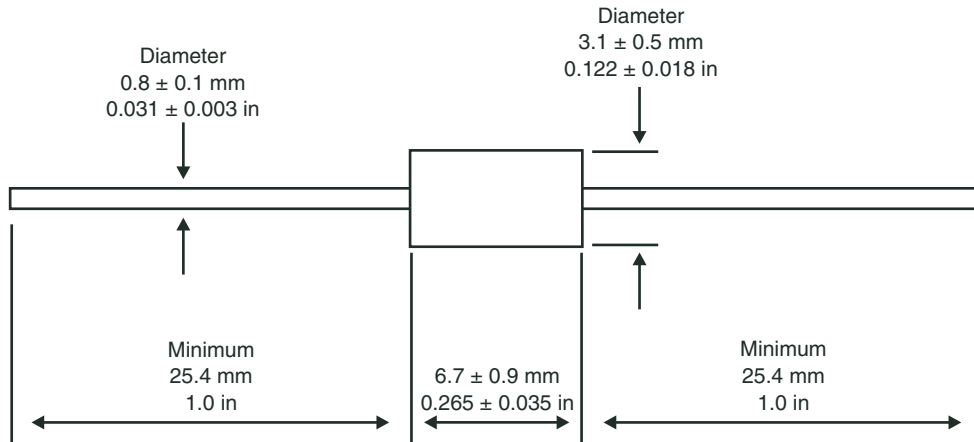
### P6KE Series Features

- RoHS Compliance Standard
- 600 watt peak pulse power dissipation
- Available in voltages from 6.8V to 400V
- Unidirectional and Bidirectional
- Glass passivated junction
- Low clamping factor
- Available in bulk or tape and reel (Reel quantity = 4,000 pieces)
- Each device 100% surge tested
- Tape and Reel to EIA Standard RS-296-E
- UL 497B Recognized, File # E135015 (6.8V - 82V)

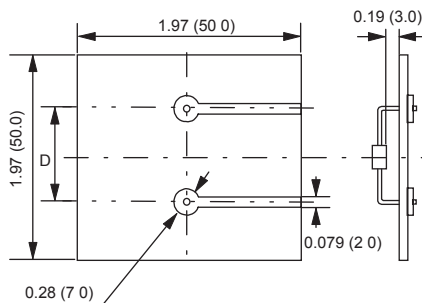
### Absolute Maximum Ratings

Parameter	Value
Peak pulse power dissipation (PPPM) at 25°C	600W
Steady state power dissipation at lead temperature = 75°C (Lead length 3/8" min.)	5W
Operating and storage temperatures	-55°C to + 175°C

### Mechanical Dimensions



### Standard Mounting Pad Layout



NOTE: **Dimension D**  
 a.) P4KE (DO-41 Package) - 0.362 (9.2)  
 b.) SA / P6KE (DO-15 Package) - 0.437 (11.6)  
**Hole Diameter**  
 a.) 0.044 (1.1)

All dimensions in inches and (millimeters)

**P6KE Series – 600 Watt****Electrical Characteristics**

Part Number*	Rated Standoff Voltage	Breakdown Voltage			Maximum Stand By Current @VWM+ Id	10/1000 $\mu$ s Maximum Clamping Voltage @Ippm# Vc Max	10/1000 $\mu$ s Rated Peak Impulse Current Ippm#
		Vbr (Volts)		@It			
	Vwm (Volts)	Min	Max	(mA)	( $\mu$ A)	(Volts)	(Amperes)
P6KE6.8	5.50	6.12	7.48	10	1000	10.8	56
P6KE6.8A	5.80	6.45	7.14	10	1000	10.5	57
P6KE7.5	6.05	6.75	8.25	10	500	11.7	51
P6KE7.5A	6.40	7.13	7.88	10	500	11.3	53
P6KE8.2	6.63	7.38	9.02	10	200	12.5	48
P6KE8.2A	7.02	7.79	8.61	10	200	12.1	50
P6KE9.1	7.37	8.19	10.0	1	50	13.8	44
P6KE9.1A	7.78	8.65	9.55	1	50	13.4	45
P6KE10	8.10	9.00	11.0	1	10	15.0	40
P6KE10A	8.55	9.5	10.5	1	10	14.5	41
P6KE11	8.92	9.9	12.1	1	5	16.2	37
P6KE11A	9.40	10.5	11.6	1	5	15.6	38
P6KE12	9.72	10.8	13.2	1	5	17.3	35
P6KE12A	10.2	11.4	12.6	1	5	16.7	36
P6KE13	10.5	11.7	14.3	1	5	19.0	32
P6KE13A	11.1	12.4	13.7	1	5	18.2	33
P6KE15	12.1	13.5	16.5	1	5	22.0	27
P6KE15A	12.8	14.3	15.8	1	5	21.2	28
P6KE16	12.9	14.4	17.6	1	5	23.5	26
P6KE16A	13.6	15.2	16.8	1	5	22.5	27
P6KE18	14.5	16.2	19.8	1	5	26.5	23
P6KE18A	15.3	17.1	18.9	1	5	25.2	24
P6KE20	16.2	18.0	22.0	1	5	29.1	21
P6KE20A	17.1	19.0	21.0	1	5	27.7	22
P6KE22	17.8	19.8	24.2	1	5	31.9	19
P6KE22A	18.8	20.9	23.1	1	5	30.6	20
P6KE24	19.4	21.6	26.4	1	5	34.7	17
P6KE24A	20.5	22.8	25.2	1	5	33.2	18
P6KE27	21.8	24.3	29.7	1	5	39.1	15
P6KE27A	23.1	25.7	28.4	1	5	37.5	16

\* = Add "C" or "CA" suffix for bidirectional device types.

+ = For Bidirectional Types Having VWM  $\leq$  10V, their ID limit is doubled.

# = See General Information for Impulse Current Waveform.

**P6KE Series – 600 Watt****Electrical Characteristics (continued)**

Part Number*	Rated Standoff Voltage	Breakdown Voltage			Maximum Stand By Current @VWM+ Id	10/1000µs Maximum Clamping Voltage @Ippm# Vc Max	10/1000µs Rated Peak Impulse Current Ippm#
		Vbr (Volts)		@It			
	Vwm (Volts)	Min	Max	(mA)	(µA)	(Volts)	(Amperes)
P6KE30	24.3	27.0	33.0	1	5	43.5	14
P6KE30A	25.6	28.5	31.5	1	5	41.4	14.4
P6KE33	26.8	29.7	36.3	1	5	47.7	12.6
P6KE33A	28.2	31.4	34.7	1	5	45.7	13.2
P6KE36	29.1	32.4	39.6	1	5	52.0	11.6
P6KE36A	30.8	34.2	37.8	1	5	49.9	12.0
P6KE39	31.6	35.1	42.9	1	5	56.4	10.5
P6KE39A	33.3	37.1	41.0	1	5	53.9	11.2
P6KE43	34.8	38.7	47.3	1	5	61.9	9.6
P6KE43A	36.8	40.9	45.2	1	5	59.3	10.1
P6KE47	38.1	42.3	51.7	1	5	67.8	8.9
P6KE47A	40.2	44.7	49.4	1	5	64.8	9.3
P6KE51	41.3	45.9	56.1	1	5	73.5	8.2
P6KE51A	43.6	48.5	53.6	1	5	70.1	8.6
P6KE56	45.4	50.4	61.6	1	5	80.5	7.4
P6KE56A	47.8	53.2	58.8	1	5	77.0	7.8
P6KE62	50.2	55.8	68.2	1	5	89.0	6.8
P6KE62A	53.0	58.9	65.1	1	5	85.0	7.1
P6KE68	55.1	61.2	74.8	1	5	98.0	6.1
P6KE68A	58.1	64.6	71.4	1	5	92.0	6.5
P6KE75	60.7	67.5	82.5	1	5	108.0	5.5
P6KE75A	64.1	71.3	78.8	1	5	103.0	5.8
P6KE82	66.4	73.8	90.2	1	5	118.0	5.1
P6KE82A	70.1	77.9	86.1	1	5	113.0	5.3
P6KE91	73.7	81.9	100.0	1	5	131.0	4.5
P6KE91A	77.8	86.5	95.5	1	5	125.0	4.8
P6KE100	81.0	90.0	110.0	1	5	144.0	4.2
P6KE100A	85.5	95.0	105.0	1	5	137.0	4.4
P6KE110	89.2	99.0	121.0	1	5	158.0	3.8
P6KE110A	94.0	105.0	116.0	1	5	152.0	4.0

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**P6KE Series – 600 Watt****Electrical Characteristics (continued)**

Part Number*	Rated Standoff Voltage	Breakdown Voltage			Maximum Stand By Current @VWM+ Id	10/1000µs Maximum Clamping Voltage @Ippm# Vc Max	10/1000µs Rated Peak Impulse Current Ippm#
		Vbr (Volts)		@It			
	Vwm (Volts)	Min	Max	(mA)	(µA)	(Volts)	(Amperes)
P6KE120	97.2	108.0	132.0	1	5	173.0	3.5
P6KE120A	102.0	114.0	126.0	1	5	165.0	3.6
P6KE130	105.0	117.0	143.0	1	5	187.0	3.2
P6KE130A	111.0	124.0	137.0	1	5	179.0	3.3
P6KE150	121.0	135.0	165.0	1	5	215.0	2.8
P6KE150A	128.0	143.0	158.0	1	5	207.0	2.9
P6KE160	130.0	144.0	176.0	1	5	230.0	2.6
P6KE160A	136.0	152.0	168.0	1	5	219.0	2.7
P6KE170	138.0	153.0	187.0	1	5	244.0	2.5
P6KE170A	145.0	162.0	179.0	1	5	234.0	2.6
P6KE180	146.0	162.0	198.0	1	5	258.0	2.3
P6KE180A	154.0	171.0	189.0	1	5	246.0	2.4
P6KE200	162.0	180.0	220.0	1	5	287.0	2.1
P6KE200A	171.0	190.0	210.0	1	5	274.0	2.2
P6KE220	175.0	198.0	242.0	1	5	344.0	1.75
P6KE220A	185.0	209.0	231.0	1	5	328.0	1.83
P6KE250	202.0	225.0	275.0	1	5	360.0	1.67
P6KE250A	214.0	237.0	263.0	1	5	344.0	1.75
P6KE300	243.0	270.0	330.0	1	5	430.0	1.40
P6KE300A	256.0	285.0	315.0	1	5	414.0	1.45
P6KE350	284.0	315.0	385.0	1	5	504.0	1.20
P6KE350A	300.0	332.0	368.0	1	5	482.0	1.25
P6KE400	324.0	360.0	440.0	1	5	574.0	1.05
P6KE400A	342.0	380.0	420.0	1	5	548.0	1.10
P6KE440	356.0	396.0	484.0	1	5	631.0	0.99
P6KE440A	376.0	418.0	462.0	1	5	600.0	1.04
P6KE550	445.5	495.0	605.0	1	5	792.0	0.76
P6KE550A	467.5	522.5	577.5	1	5	753.5	0.80

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