

**TVS Diodes - 3000 Watt Specifications - 3KP Series Electrical Characteristics**

Part Number*	Rated Standoff Voltage Vwm (Volts)	Breakdown Voltage			Maximum Stand By Current @Vwm+ Id ( $\mu$ A)	10/1000 $\mu$ s Maximum Clamping Voltage @Ippm# Vc Max (Volts)	10/1000 $\mu$ s Rated Peak Impulse Current Ippm# (Amperes)
		Vbr (Volts)		@It			
	Min	Max	(mA)				
3KP5.0	5.00	6.40	7.55	10	1000	9.6	312.5
3KP5.0A	5.00	6.40	7.25	10	1000	9.2	326.0
3KP6.0	6.00	6.67	8.45	10	1000	11.4	263.2
3KP6.0A	6.00	6.67	7.67	10	1000	10.3	291.3
3KP6.5	6.50	7.22	9.14	10	500	12.3	243.9
3KP6.5A	6.50	7.22	8.30	10	500	11.2	267.9
3KP7.0	7.00	7.78	9.86	10	200	13.3	225.6
3KP7.0A	7.00	7.78	8.95	10	200	12.0	250.0
3KP7.5	7.50	8.33	10.67	1	100	14.3	209.8
3KP7.5A	7.50	8.33	9.58	1	100	12.9	232.6
3KP8.0	8.00	8.89	11.30	1	50	15.0	220.0
3KP8.0A	8.00	8.89	10.23	1	50	13.6	220.6
3KP8.5	8.50	9.44	11.92	1	25	15.9	188.8
3KP8.5A	8.50	9.44	10.82	1	25	14.4	208.4
3KP9.0	9.00	10.00	12.60	1	10	16.9	177.4
3KP9.0A	9.00	10.00	11.50	1	10	15.4	194.8
3KP10	10.00	11.10	14.10	1	5	18.8	159.6
3KP10A	10.00	11.10	12.80	1	5	17.0	176.4
3KP11	11.00	12.20	15.40	1	5	20.1	149.2
3KP11A	11.00	12.20	14.00	1	5	18.2	184.8
3KP12	12.00	13.30	16.90	1	5	22.0	136.4
3KP12A	12.00	13.30	15.30	1	5	19.9	150.6
3KP13	13.00	14.40	18.20	1	5	23.8	126.0
3KP13A	13.00	14.40	16.50	1	5	21.5	139.4
3KP14	14.00	15.60	19.80	1	5	25.8	116.2
3KP14A	14.00	15.60	17.90	1	5	23.2	129.4
3KP15	15.00	16.70	21.10	1	5	26.9	111.6
3KP15A	15.00	16.70	19.20	1	5	24.4	123.0

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.

**TVS Diodes - 3000 Watt Specifications - 3KP Series Electrical Characteristics - (Continued)**

Part Number*	Rated Standoff Voltage V <sub>wm</sub>  (Volts)	Breakdown Voltage			Maximum Stand By Current @V <sub>wm</sub> + I <sub>d</sub>  ( $\mu$ A)	10/1000 $\mu$ s Maximum Clamping Voltage @I <sub>ppm</sub> # V <sub>c</sub> Max  (Volts)	10/1000 $\mu$ s Rated Peak Impulse Current I <sub>ppm</sub> #  (Amperes)
		V <sub>br</sub> (Volts)		@I <sub>t</sub>			
	Min	Max	(mA)				
3KP16	16.00	17.80	22.60	1	5	28.8	104.2
3KP16A	16.00	17.80	20.50	1	5	26.0	115.4
3KP17	17.00	18.90	23.90	1	5	30.5	98.4
3KP17A	17.00	18.90	21.70	1	5	27.6	106.6
3KP18	18.00	20.00	25.30	1	5	32.2	93.2
3KP18A	18.00	20.00	23.30	1	5	29.2	102.8
3KP20	20.00	22.20	28.10	1	5	35.8	83.8
3KP20A	20.00	22.20	25.50	1	5	32.4	92.6
3KP22	22.00	24.40	30.90	1	5	39.4	76.2
3KP22A	22.00	24.40	28.00	1	5	35.5	84.4
3KP24	24.00	26.70	33.80	1	5	43.0	69.8
3KP24A	24.00	26.70	30.70	1	5	38.9	77.2
3KP26	26.00	28.90	36.60	1	5	46.6	64.4
3KP26A	26.00	28.90	33.20	1	5	42.1	71.2
3KP28	28.00	31.10	39.40	1	5	50.0	60.0
3KP28A	28.00	31.10	35.80	1	5	45.4	66.0
3KP30	30.00	33.30	42.20	1	5	53.5	56.0
3KP30A	30.00	33.30	38.30	1	5	48.4	62.0
3KP33	33.00	36.70	46.50	1	5	59.0	50.4
3KP33A	33.00	36.70	42.20	1	5	53.3	56.2
3KP36	36.00	40.00	50.70	1	5	64.3	46.6
3KP36A	36.00	40.00	46.00	1	5	58.1	51.6
3KP40	40.00	44.40	53.30	1	5	71.4	42.0
3KP40A	40.00	44.40	51.10	1	5	64.5	46.4
3KP43	43.00	47.80	60.50	1	5	76.7	39.2
3KP43A	43.00	47.80	54.90	1	5	69.4	43.2
3KP45	45.00	50.00	63.30	1	5	80.3	37.4
3KP45A	45.00	50.00	57.50	1	5	72.7	41.2

Add "C" or "CA" suffix for bidirectional device types.

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**TVS Diodes - 3000 Watt Specifications - 3KP Series Electrical Characteristics - (Continued)**

Part Number*	Rated Standoff Voltage Vwm (Volts)	Breakdown Voltage			Maximum Stand By Current @Vwm+ Id ( $\mu$ A)	10/1000 $\mu$ s Maximum Clamping Voltage @Ippm# Vc Max (Volts)	10/1000 $\mu$ s Rated Peak Impulse Current Ippm# (Amperes)
		Vbr (Volts) Min	Max	@It (mA)			
3KP48	48.00	53.30	67.50	1	5	85.5	35.0
3KP48A	48.00	53.30	61.30	1	5	77.4	38.8
3KP51	51.00	56.70	71.80	1	5	91.1	37.0
3KP51A	51.00	56.70	65.20	1	5	82.4	36.4
3KP54	54.00	60.00	76.00	1	5	96.3	31.2
3KP54A	54.00	60.00	69.00	1	5	87.1	34.4
3KP58	58.00	64.40	81.60	1	5	103.0	29.2
3KP58A	58.00	64.40	74.10	1	5	93.6	32.0
3KP60	60.00	66.70	84.50	1	5	107.0	28.0
3KP60A	60.00	66.70	76.70	1	5	96.8	31.0
3KP64	64.00	71.10	90.10	1	5	114.0	26.4
3KP64A	64.00	71.10	81.80	1	5	103.0	29.2
3KP70	70.00	77.80	98.60	1	5	125.0	24.0
3KP70A	70.00	77.80	89.50	1	5	113.0	26.6
3KP75	75.00	83.30	105.70	1	5	134.0	22.4
3KP75A	75.00	83.30	98.80	1	5	121.0	24.8
3KP78	78.00	86.70	109.80	1	5	139.0	21.6
3KP78A	78.00	86.70	99.70	1	5	126.0	22.8
3KP85	85.00	94.40	119.20	1	5	151.0	19.8
3KP85A	85.00	94.40	108.20	1	5	137.0	20.8
3KP90	90.00	100.00	126.50	1	5	160.0	18.8
3KP90A	90.00	100.00	115.50	1	5	146.0	20.6
3KP100	100.00	111.00	141.00	1	5	179.0	16.6
3KP100A	100.00	111.00	128.00	1	5	162.0	18.6
3KP110	110.00	122.00	154.50	1	5	196.0	15.4
3KP110A	110.00	122.00	140.50	1	5	177.0	16.8
3KP120	120.00	133.00	169.00	1	5	214.0	14.0
3KP120A	120.00	133.00	153.00	1	5	193.0	15.6

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		Vbr (Volts) Min	@It Max	(mA)			
3KP130	130.00	144.00	182.50	1	5	231.0	13.0
3KP130A	130.00	144.00	165.50	1	5	209.0	14.4
3KP150	150.00	167.00	211.50	1	5	268.0	11.2
3KP150A	150.00	167.00	192.50	1	5	243.0	12.4
3KP160	160.00	178.00	226.00	1	5	287.0	10.4
3KP160A	160.00	178.00	205.00	1	5	259.0	11.6
3KP170	170.00	189.00	239.50	1	5	304.0	9.8
3KP170A	170.00	189.00	217.50	1	5	275.0	11.0

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## TVS Diodes - 3000 Watt - 3KP Series Features

### 3KP Series Features

- 3000 watt peak pulse power dissipation
- Available in voltages from 10V to 170V
- Unidirectional and Bidirectional
- Glass passivated junction
- Low clamping factor
- Available in bulk or tape and reel (Reel quantity = 800 pieces)
- Each device 100% surge tested
- UL 497B Recognized, File # E135015

### Absolute Maximum Ratings

- Peak pulse power dissipation (Pppm) at 25°C..... 3000W
- Steady state power dissipation at lead temperature = 75°C (Lead length 3/8" min.)..... 8W
- Operating and storage temperatures..... -55°C to + 175°C
- UL497B, File # E135015

### Mechanical Dimensions

