

TVS Diodes - 5000 Watt Specifications - 5KP Series Electrical Characteristics

Part Number*	Rated Standoff Voltage Vwm (Volts)	Breakdown Voltage			Maximum Stand By Current @Vwm+ Id (µA)	10/1000µs Maximum Clamping Voltage @Ippm# Vc Max (Volts)	10/1000µs Rated Peak Impulse Current Ippm# (Amperes)	Temperature Coefficient of Vbr (mV/°C)
		Vbr (Volts)		@It (mA)				
			Min	Max				
5KP10	10.0	11.1	13.6	5.0	15	18.8	266.0	9.0
5KP10A	10.0	11.1	12.3	5.0	15	17.0	294.0	9.0
5KP11	11.0	12.2	14.9	5.0	10	20.1	249.0	10.0
5KP11A	11.0	12.2	13.5	5.0	10	18.2	274.0	10.0
5KP12	12.0	13.3	16.3	5.0	10	22.0	227.0	11.0
5KP12A	12.0	13.3	14.7	5.0	10	19.9	251.0	11.0
5KP13	13.0	14.4	17.6	5.0	10	23.8	210.0	12.0
5KP13A	13.0	14.4	15.9	5.0	10	21.5	232.0	12.0
5KP14	14.0	15.6	19.1	5.0	10	25.8	194.0	13.0
5KP14A	14.0	15.6	17.2	5.0	10	23.2	215.0	13.0
5KP15	15.0	16.7	20.4	5.0	10	26.9	188.0	15
5KP15A	15.0	16.7	18.5	5.0	10	24.4	206.0	15
5KP16	16.0	17.8	21.8	5.0	10	28.8	176.0	18
5KP16A	16.0	17.8	19.7	5.0	10	26.0	192.0	16
5KP17	17.0	18.9	23.1	5.0	10	30.5	164.0	19
5KP17A	17.0	18.9	20.9	5.0	10	27.6	181.0	18
5KP18	18.0	20.0	24.4	5.0	10	32.2	155.0	20
5KP18A	18.0	20.0	22.1	5.0	10	29.2	172.0	19
5KP20	20.0	22.2	27.1	5.0	10	35.8	139.0	24
5KP20A	20.0	22.2	24.5	5.0	10	32.4	154.0	22

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TVS Diodes - 5000 Watt Specifications - 5KP Series Electrical Characteristics - (Continued)

Part Number*	Rated Standoff Voltage Vwm	Breakdown Voltage			Maximum Stand By Current @Vwm+ Id	10/1000μs Maximum Clamping Voltage @Ippm# Vc Max	10/1000μs Rated Peak Impulse Current Ippm#	Temperature Coefficient of Vbr
		Vbr (Volts)		@It				
	(Volts)	Min	Max	(mA)	(μA)	(Volts)	(Amperes)	(mV/°C)
5KP22	22.0	24.4	29.8	5.0	10	39.4	127.0	27.0
5KP22A	22.0	24.4	26.9	5.0	10	35.5	141.0	24.0
5KP24	24.0	26.7	32.6	5.0	10	43.0	116.0	30.0
5KP24A	24.0	26.7	29.5	5.0	10	38.9	128.0	27.0
5KP26	26.0	28.9	35.3	5.0	10	46.6	107.0	33.0
5KP26A	26.0	28.9	31.9	5.0	10	42.1	119.0	29.0
5KP28	28.0	31.1	39.0	5.0	10	50.1	99.0	34.0
5KP28A	28.0	31.1	34.4	5.0	10	45.5	110.0	30.0
5KP30	30.0	33.3	40.7	5.0	10	53.5	93.0	38.0
5KP30A	30.0	33.3	36.8	5.0	10	48.4	103.0	35.0
5KP33	33.0	36.7	44.9	5.0	10	59.0	85.0	41.0
5KP33A	33.0	36.7	40.6	5.0	10	53.3	94.0	38.0
5KP36	36.0	40.0	48.9	5.0	10	64.3	78.0	45.0
5KP36A	36.0	40.0	44.2	5.0	10	58.1	86.0	40.0
5KP40	40.0	44.4	54.3	5.0	10	71.4	70.0	50.0
5KP40A	40.0	44.4	49.1	5.0	10	64.5	78.0	45.0
5KP43	43.0	47.8	58.4	5.0	10	76.7	65.0	54.0
5KP43A	43.0	47.8	52.8	5.0	10	69.4	72.0	49.0
5KP45	45.0	50.0	61.1	5.0	10	80.3	62.0	57.0
5KP45A	45.0	50.0	55.3	5.0	10	72.7	69.0	51.0
5KP48	48.0	53.3	65.2	5.0	10	85.5	58.0	62.0
5KP48A	48.0	53.3	58.9	5.0	10	77.4	65.0	55.0

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TVS Diodes - 5000 Watt Specifications - 5KP Series Electrical Characteristics - (Continued)

Part Number*	Rated Standoff Voltage V _{wm}	Breakdown Voltage			Maximum Stand By Current @V _{wm} + I _d	10/1000μs Maximum Clamping Voltage @I _{ppm} # V _c Max	10/1000μs Rated Peak Impulse Current I _{ppm} #	Temperature Coefficient of V _{br}
		V _{br} (Volts)		@I _t				
	(Volts)	Min	Max	(mA)	(μA)	(Volts)	(Amperes)	(mV/°C)
5KP51	51.0	56.7	69.3	5.0	10	91.1	55.0	65.0
5KP51A	51.0	56.7	62.7	5.0	10	82.4	61.0	60.0
5KP54	54.0	60.0	73.3	5.0	10	96.3	52.0	70.0
5KP54A	54.0	60.0	66.3	5.0	10	87.1	57.0	64.0
5KP58	58.0	64.4	78.7	5.0	10	103.0	49.0	77.0
5KP58A	58.0	64.4	71.2	5.0	10	93.6	53.0	69.0
5KP60	60.0	66.7	81.5	5.0	10	107.0	47.0	79.0
5KP60A	60.0	66.7	73.7	5.0	10	96.8	52.0	70.0
5KP64	64.0	71.1	96.9	5.0	10	114.0	44.0	85.0
5KP64A	64.0	71.1	78.6	5.0	10	103.0	49.0	75.0
5KP70	70.0	77.6	95.1	5.0	10	125.0	40.0	93.0
5KP70A	70.0	77.6	86.0	5.0	10	113.0	44.0	84.0
5KP75	75.0	83.3	102.0	5.0	10	134.0	37.0	100.0
5KP75A	75.0	83.3	92.1	5.0	10	121.0	41.0	90.0
5KP78	78.0	86.7	106.0	5.0	10	139.0	36.0	104.0
5KP78A	78.0	86.7	95.8	5.0	10	126.0	40.0	94.0
5KP85	85.0	94.4	115.0	5.0	10	151.0	33.0	113.0
5KP85A	85.0	94.4	104.0	5.0	10	137.0	36.0	102.0
5KP90	90.0	100.0	122.0	5.0	10	160.0	31.0	120.0
5KP90A	90.0	100.0	111.0	5.0	10	146.0	34.0	109.0
5KP100	100.0	111.0	136.0	5.0	10	179.0	28.0	134.0
5KP110	110.0	122.0	149.0	5.0	10	196.0	26.0	147.0
5KP120	120.0	133.0	163.0	5.0	10	215.0	23.0	158.0
5KP150	150.0	166.0	204.0	5.0	10	268.0	18.5	200.0
5KP180	180.0	200.0	244.0	5.0	10	320.0	15.0	240.0

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TVS Diodes - 5000 Watt - 5KP Series Features

5KP Series Features

- 5000 watt peak pulse power dissipation
- Available in voltages from 10V to 180V
- 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
- Tape and Reel to EIA Standard RS-296-E

Absolute Maximum Ratings

- Peak pulse power dissipation (Pppm) at 25°C..... 5000W
- Steady state power dissipation at lead temperature = 75°C (Lead length 3/8" min.)..... 8W
- Operating and storage temperatures..... -55°C to + 175°C

Mechanical Dimensions

