

5000W Transient Voltage Suppressors

TVS Diodes - 5000W > 5KP Series



Description

The 5KP series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

Features

- Plastic material has UL flammability classification 94V-O
- Typical IR less than 1uA above 12V
- Fast response time
- Glass passivated junction
- Low zener impedance • Excellent clamping capability
- Low inductance
- Agency recognition:



Package: P600

Applications

- I/O interface
- AC/DC power supply
- Low frequency signal transmission line.

Electrical Characteristics

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation at TA=25°C by 10 / 1000µs waveform (Fig.1)(Note 1)	PPPM	5000	W
Steady state power dissipation at TL=75°C (Fig.5)	PM(AV)	8	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave superimposed on rated load, (JEDEC Method) (Note2, Fig.6)	IFSM	400	A
Operating Junction and Storage Temperature Range	Tj, TSTG	-55 to 175	°C
Typical Thermal Resistance Junction to Lead	RθJL	15	°C/W
Typical Thermal Resistance Junction to Ambient	RθJA	75	°C/W

Notes:

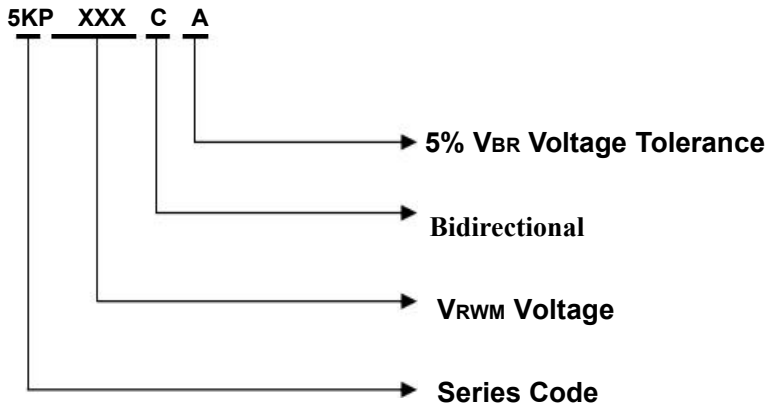
1. Non-repetitive current pulse, per Fig.3 and derated above TA=25°C per Fig. 2.
2. 8.3ms single half sine-wave, or equivalent square wave, duty cycle=4 pulses per minutes maximum.

Electrical Characteristics (TA=25°C)

Part Number		Reverse Stand-Off Voltage	Breakdown Voltage $V_{BR}(V_{ts})@I_T$		Test Current	Maximum Clamping Voltage@ I_{PP}	Peak Pulse Current	Reverse Leakage @ V_{RWM}	Certification	Delivery Time
Uni-Polar	Bi-polar	$V_{RWM}(V)$	Min	Max	$I_T(mA)$	$V_C(V)$	$I_{PP}(A)$	$I_R(\mu A)$	UL	days
5KP5.0A	5KP5.0CA	5.0	6.40	7.00	50	9.2	544.3	5000	√	15days
5KP6.0A	5KP6.0CA	6.0	6.67	7.37	50	10.3	495.1	5000	√	15days
5KP6.5A	5KP6.5CA	6.5	7.22	7.98	50	11.2	455.4	2000	√	15days
5KP7.0A	5KP7.0CA	7.0	7.78	8.60	50	12.0	425.0	1000	√	15days
5KP7.5A	5KP7.5CA	7.5	8.33	9.21	5	12.9	395.3	250	√	15days
5KP8.0A	5KP8.0CA	8.0	8.89	9.83	5	13.6	375.0	150	√	15days
5KP8.5A	5KP8.5CA	8.5	9.44	10.40	5	14.4	354.2	50	√	15days
5KP9.0A	5KP9.0CA	9.0	10.0	11.10	5	15.4	331.2	20	√	15days
5KP10A	5KP10CA	10.0	11.1	12.30	5	17.0	300.0	15	√	15days
5KP11A	5KP11CA	11.0	12.2	13.50	5	18.2	280.2	2	√	15days
5KP12A	5KP12CA	12.0	13.3	14.70	5	19.9	256.3	2	√	15days
5KP13A	5KP13CA	13.0	14.4	15.90	5	21.5	237.2	2	√	15days
5KP14A	5KP14CA	14.0	15.6	17.20	5	23.2	219.8	2	√	15days
5KP15A	5KP15CA	15.0	16.7	18.50	5	24.4	209.0	2	√	15days
5KP16A	5KP16CA	16.0	17.8	19.70	5	26.0	196.2	2	√	15days
5KP17A	5KP17CA	17.0	18.9	20.90	5	27.6	184.8	2	√	15days
5KP18A	5KP18CA	18.0	20.0	22.10	5	29.2	174.7	2	√	15days
5KP20A	5KP20CA	20.0	22.2	24.50	5	32.4	157.4	2	√	15days
5KP22A	5KP22CA	22.0	24.0	26.90	5	35.5	143.7	2	√	15days
5KP24A	5KP24CA	24.0	26.7	29.50	5	38.9	131.1	2	√	15days
5KP26A	5KP26CA	26.0	28.9	31.90	5	42.1	121.1	2	√	15days
5KP28A	5KP28CA	28.0	31.1	34.40	5	45.4	112.3	2	√	15days
5KP30A	5KP30CA	30.0	33.3	36.80	5	48.4	105.4	2	√	15days
5KP33A	5KP33CA	33.0	36.7	40.60	5	53.3	95.7	2	√	15days

Part Number		Reverse Stand-Off Voltage	Breakdown Voltage $V_{BR}(V_{olts})@I_T$		Test Current	Maximum Clamping Voltage@ I_{PP}	Peak Pulse Current	Reverse Leakage @ V_{RWM}	Certification	Delivery Time
Uni-Polar	Bi-polar	$V_{RWM}(V)$	Min	Max	$I_T(mA)$	$V_C(V)$	$I_{PP}(A)$	$I_R(\mu A)$	UL	days
5KP36A	5KP36CA	36.0	40.0	44.2	5	58.1	87.8	2	√	15days
5KP40A	5KP40CA	40.0	44.4	49.1	5	64.5	79.1	2	√	15days
5KP43A	5KP43CA	43.0	47.8	52.8	5	69.4	73.5	2	√	15days
5KP45A	5KP45CA	45.0	50.0	55.3	5	72.7	70.2	2	√	15days
5KP48A	5KP48CA	48.0	53.3	58.9	5	77.4	65.9	2	√	15days
5KP51A	5KP51CA	51.0	56.7	62.7	5	82.4	61.9	2	√	15days
5KP54A	5KP54CA	54.0	60.0	66.3	5	87.1	58.6	2	√	15days
5KP58A	5KP58CA	58.0	64.4	71.2	5	93.6	54.5	2	√	15days
5KP60A	5KP60CA	60.0	66.7	73.7	5	96.8	52.7	2	√	15days
5KP64A	5KP64CA	64.0	71.1	78.6	5	103.0	49.5	2	√	15days
5KP70A	5KP70CA	70.0	77.8	86.0	5	113.0	45.1	2	√	15days
5KP75A	5KP75CA	75.0	83.3	92.1	5	121.0	42.1	2	√	15days
5KP78A	5KP78CA	78.0	86.7	95.8	5	126.0	40.5	2	√	15days
5KP85A	5KP85CA	85.0	94.4	104	5	137.0	37.2	2	√	15days
5KP90A	5KP90CA	90.0	100	111	5	146.0	34.9	2	√	15days
5KP100A	5KP100CA	100.0	110	123	5	162.0	31.5	2	√	15days
5KP110A	5KP110CA	110.0	122	135	5	177.0	28.8	2	√	15days
5KP120A	5KP120CA	120.0	133	147	5	193.0	26.4	2	√	15days
5KP130A	5KP130CA	130.0	144	159	5	209.0	24.4	2	√	15days
5KP150A	5KP150CA	150.0	167	185	5	243.0	21.0	2	√	15days
5KP160A	5KP160CA	160.0	178	197	5	259.0	19.7	2	√	15days
5KP170A	5KP170CA	170.0	189	209	5	275.0	18.5	2	√	15days
5KP180A	5KP180CA	180.0	200	221	5	292.0	17.5	2	√	15days
5KP190A	5KP190CA	190.0	211	233	5	310.0	16.5	2	√	15days
5KP200A	5KP200CA	200.0	222	246	5	329.2	15.5	2	√	15days
5KP210A	5KP210CA	210.0	233	258	5	349.5	14.6	2	√	15days
5KP220A	5KP220CA	220.0	244	270	5	371.1	13.7	2	√	15days
5KP250A	5KP250CA	250.0	277	306	5	425.0	12.0	2	√	15days

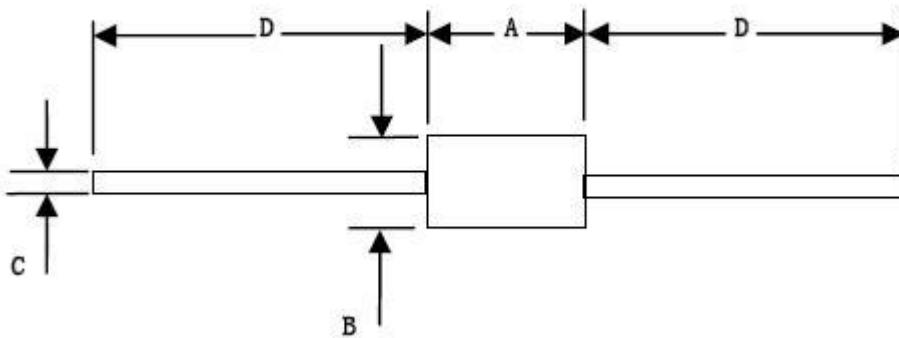
Description of Part Number



Packing Options

Package Type	Description	Packing Quantity	Industry Standard
P600	Tape and Reel Pack	300PCS	EIA STD RS-296

Dimensions - P600



Dimension	Inches		Millimeters	
	Min	Max	Min	Max
A	0.34	0.36	8.60	9.10
B	0.34	0.36	8.60	9.10
C	0.048	0.052	1.22	1.32
D	1.000		25.4	