


TYPE No.	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage Current		Max. Clamping Voltage	Max. Peak Pulse Current	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Package Outline Drawing No. Please refer to Page: 131~139 </div>
	V_{RWM}	$V_{BR} @ I_T$		I_T	$I_R @ V_{RWM}$		$V_C @ I_{PP}$	I_{PP}	
		Min.	Max.		UNI-	BI-			
	V	V	V	mA	μA	μA	V	A	

400 Watts

P4KE6.8	5.50	6.12	7.48	10	1000	2000	10.8	38.0	DO-41 (No.: 3)	
P4KE6.8A	5.80	6.45	7.14	10	1000	2000	10.5	38.1		
P4KE7.5	6.05	6.75	8.25	10	500	1000	11.7	34.2		
P4KE7.5A	6.40	7.13	7.88	10	500	1000	11.3	35.4		
P4KE8.2	6.63	7.38	9.02	10	200	400	12.5	32.0		
P4KE8.2A	7.02	7.79	8.61	10	200	400	12.1	33.1		
P4KE9.1	7.37	8.19	10.0	1	50	100	13.8	29.0		
P4KE9.1A	7.78	8.65	9.50	1	50	100	13.4	29.9		
P4KE10	8.10	9.00	11.0	1	10	20	15.0	26.7		
P4KE10A	8.55	9.50	10.5	1	10	20	14.5	27.6		
P4KE11	8.92	9.90	12.1	1	5	10	16.2	24.7		
P4KE11A	9.40	10.5	11.6	1	5	10	15.6	25.6		
P4KE12	9.72	10.8	13.2	1	5		17.3	23.1		
P4KE12A	10.2	11.4	12.6	1	5		16.7	24.0		
P4KE13	10.5	11.7	14.3	1	5		19.0	21.1		
P4KE13A	11.1	12.4	13.7	1	5		18.2	22.0		
P4KE15	12.1	13.5	16.5	1	5		22.0	18.2		
P4KE15A	12.8	14.3	15.8	1	5		21.2	18.9		
P4KE16	12.9	14.4	17.6	1	5		23.5	17.0		
P4KE16A	13.6	15.2	16.8	1	5		22.5	17.8		
P4KE18	14.5	16.2	19.8	1	5		26.5	15.1		
P4KE18A	15.3	17.1	18.9	1	5		25.2	15.9		
P4KE20	16.2	18.0	22.0	1	5		29.1	13.7		
P4KE20A	17.1	19.0	21.0	1	5		27.7	14.4		
P4KE22	17.8	19.8	24.2	1	5		31.9	12.5		
P4KE22A	18.8	20.9	23.1	1	5		30.6	13.1		
P4KE24	19.4	21.6	26.4	1	5		34.7	11.5		
P4KE24A	20.5	22.8	25.2	1	5		33.2	12.0		
P4KE27	21.8	24.3	29.7	1	5		39.1	10.2		
P4KE27A	23.1	25.7	28.4	1	5		37.5	10.7		
P4KE30	24.3	27.0	33.0	1	5		43.5	9.2		
P4KE30A	25.6	28.5	31.5	1	5		41.4	9.7		
P4KE33	26.8	29.7	36.3	1	5		47.7	8.4		
P4KE33A	28.2	31.4	34.7	1	5		45.7	8.8		
P4KE36	29.1	32.4	39.6	1	5		52.0	7.7		
P4KE36A	30.8	34.2	37.8	1	5		49.9	8.0		
P4KE39	31.6	35.1	42.9	1	5		56.4	7.1		
P4KE39A	33.3	37.1	41.0	1	5		53.9	7.4		
P4KE43	34.8	38.7	47.3	1	5		61.9	6.5		
P4KE43A	36.8	40.9	45.2	1	5		59.3	6.7		
P4KE47	38.1	42.3	51.7	1	5		67.8	5.9		
P4KE47A	40.2	44.7	49.4	1	5		64.8	6.2		

NOTE: 1. Suffix "A" indicates $\pm 5\%$ Tolerance.

2. For Bidirectional use "C" or "CA" Suffix for types. (e.g.: P4KE6.8C, P4KE6.8CA, P4KE47C, P4KE47CA,...etc.), electrical characteristics apply in both directions.

T.V.S.

TRANSIENT VOLTAGE SUPPRESSORS (Axial Lead Type)



TYPE No.	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage Current		Max. Clamping Voltage	Max. Peak Pulse Current	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Package Outline Drawing No. Please refer to Page: 131~139 </div>
	V_{RWM}	$V_{BR} @ I_T$		I_T	$I_R @ V_{RWM}$		$V_C @ I_{PP}$	I_{PP}	
		Min.	Max.		UNI-	BI-			
V	V	V	V	mA	μA	μA	V	A	

400 Watts

P4KE51	41.3	45.9	56.1	1	5	73.5	5.4
P4KE51A	43.6	48.5	53.6	1	5	70.1	5.7
P4KE56	45.6	50.4	61.6	1	5	80.5	5.0
P4KE56A	47.8	53.2	58.8	1	5	77.0	5.2
P4KE62	50.2	55.8	68.2	1	5	89.0	4.5
P4KE62A	53.0	58.9	65.1	1	5	85.0	4.7
P4KE68	55.1	61.2	74.8	1	5	98.0	4.1
P4KE68A	58.1	64.6	71.4	1	5	92.0	4.3
P4KE75	60.7	67.5	82.5	1	5	108	3.7
P4KE75A	64.1	71.3	78.8	1	5	103	3.9
P4KE82	66.4	73.8	90.2	1	5	118	3.4
P4KE82A	70.1	77.9	86.1	1	5	113	3.5
P4KE91	73.7	81.9	100	1	5	131	3.1
P4KE91A	77.8	86.5	95.5	1	5	125	3.2
P4KE100	81.0	90.0	110	1	5	144	2.8
P4KE100A	85.5	95.0	105	1	5	137	2.9
P4KE110	89.2	99.0	121	1	5	158	2.5
P4KE110A	94.0	105	116	1	5	152	2.6
P4KE120	97.2	108	132	1	5	173	2.3
P4KE120A	102	114	126	1	5	165	2.4
P4KE130	105	117	143	1	5	187	2.1
P4KE130A	111	124	137	1	5	179	2.2
P4KE150	121	135	165	1	5	215	1.9
P4KE150A	128	143	158	1	5	207	1.9
P4KE160	130	144	176	1	5	230	1.7
P4KE160A	136	152	168	1	5	219	1.8
P4KE170	138	153	187	1	5	244	1.6
P4KE170A	145	162	179	1	5	234	1.7
P4KE180	146	162	198	1	5	258	1.6
P4KE180A	154	171	189	1	5	246	1.6
P4KE200	162	180	220	1	5	287	1.4
P4KE200A	171	190	210	1	5	274	1.5
P4KE220	175	198	242	1	5	344	1.2
P4KE220A	185	209	231	1	5	328	1.2
P4KE250	202	225	275	1	5	360	1.1
P4KE250A	214	237	263	1	5	344	1.2
P4KE300	243	270	330	1	5	430	0.93
P4KE300A	256	285	315	1	5	414	1.00
P4KE350	284	315	385	1	5	504	0.79
P4KE350A	300	332	368	1	5	482	0.83
P4KE400	324	360	440	1	5	574	0.70
P4KE400A	342	380	420	1	5	548	0.73
P4KE440	356	396	484	1	5	631	0.63
P4KE440A	376	418	462	1	5	602	0.66

DO-41
(No.: 3)



NOTE: 1. Suffix "A" indicates $\pm 5\%$ Tolerance.

2. For Bidirectional use "C" or "CA" Suffix for types. (e.g.: P4KE51C, P4KE51CA, P4KE440C, P4KE440CA,....etc.), electrical characteristics apply in both directions.

T.V.S.



TRANSIENT VOLTAGE SUPPRESSORS (Axial Lead Type)

TYPE No.	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage Current		Max. Clamping Voltage	Max. Peak Pulse Current	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Package Outline Drawing No. Please refer to Page: 131~139 </div>
	V _{RWM}	V _{BR} @ I _T		I _T	I _R @ V _{RWM}		V _C @ I _{PP}	I _{PP}	
		Min.	Max.		UNI-	BI-			
V	V	V	mA	µA	µA	V	A		

500 Watts

SA5.0	5.0	6.40	7.55	10	600	1200	9.6	52.3
SA5.0A	5.0	6.40	7.25	10	600	1200	9.2	54.3
SA6.0	6.0	6.67	8.45	10	600	1200	11.4	43.9
SA6.0A	6.0	6.67	7.67	10	600	1200	10.3	48.5
SA6.5	6.5	7.22	9.14	10	400	800	12.3	40.7
SA6.5A	6.5	7.22	8.30	10	400	800	11.2	44.7
SA7.0	7.0	7.78	9.86	10	150	300	13.3	37.8
SA7.0A	7.0	7.78	8.95	10	150	300	12.0	41.7
SA7.5	7.5	8.33	10.67	1	50	100	14.3	35.0
SA7.5A	7.5	8.33	9.58	1	50	100	12.9	38.8
SA8.0	8.0	8.89	11.30	1	25	50	15.0	33.3
SA8.0A	8.0	8.89	10.23	1	25	50	13.6	36.7
SA8.5	8.5	9.44	11.92	1	10	20	15.9	31.4
SA8.5A	8.5	9.44	10.82	1	10	20	14.4	34.7
SA9.0	9.0	10.0	12.6	1	5	10	16.9	29.5
SA9.0A	9.0	10.0	11.5	1	5	10	15.4	32.5
SA10	10	11.1	14.1	1	3		18.8	26.6
SA10A	10	11.1	12.8	1	3		17.0	29.4
SA11	11	12.2	15.4	1	3		20.1	24.9
SA11A	11	12.2	14.0	1	3		18.2	27.4
SA12	12	13.3	16.9	1	3		22.0	22.7
SA12A	12	13.3	15.3	1	3		19.9	25.1
SA13	13	14.4	18.2	1	3		23.8	21.0
SA13A	13	14.4	16.5	1	3		21.5	23.2
SA14	14	15.6	19.8	1	3		25.8	19.4
SA14A	14	15.6	17.9	1	3		23.2	21.5
SA15	15	16.7	21.1	1	3		26.9	18.8
SA15A	15	16.7	19.2	1	3		24.4	20.6
SA16	16	17.8	22.6	1	3		28.8	17.6
SA16A	16	17.8	20.5	1	3		26.0	19.2
SA17	17	18.9	23.9	1	3		30.5	16.4
SA17A	17	18.9	21.7	1	3		27.6	16.1
SA18	18	20.0	25.3	1	3		32.2	15.5
SA18A	18	20.0	23.3	1	3		29.2	17.2
SA20	20	22.2	28.1	1	3		35.8	13.9
SA20A	20	22.2	25.5	1	3		32.4	15.4
SA22	22	24.4	30.9	1	3		39.4	12.7
SA22A	22	24.4	28.0	1	3		35.5	14.1
SA24	24	26.7	33.8	1	3		43.0	11.6
SA24A	24	26.7	30.7	1	3		38.9	12.8
SA26	26	28.9	36.6	1	3		46.6	10.7
SA26A	26	28.9	33.2	1	3		42.1	11.9
SA28	28	31.1	39.4	1	3		50.0	9.9
SA28A	28	31.1	35.8	1	3		45.4	11.0
SA30	30	33.3	42.2	1	3		53.5	9.3
SA30A	30	33.3	38.3	1	3		48.4	10.3
SA33	33	36.7	46.5	1	3		59.0	5.8
SA33A	33	36.7	42.2	1	3		53.3	9.4
SA36	36	40.0	50.7	1	3		64.3	7.8
SA36A	36	40.0	46.0	1	3		58.1	8.6
SA40	40	44.4	56.3	1	3		71.4	7.0
SA40A	40	44.4	51.1	1	3		64.5	7.8
SA43	43	47.8	60.5	1	3		76.7	6.5
SA43A	43	47.8	54.9	1	3		69.4	7.2

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(No.: 4)



NOTE: 1. Suffix "A" indicates ±5% Tolerance.

2. For Bidirectional use "C" or "CA" Suffix for types. (e.g.: SA5.0C, SA5.0CA, SA43C, SA43CA,...etc.), electrical characteristics apply in both directions.

TRANSIENT VOLTAGE SUPPRESSORS (Axial Lead Type)



TYPE No.	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage Current		Max. Clamping Voltage	Max. Peak Pulse Current	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Package Outline Drawing No. Please refer to Page: 131~139 </div>
	V_{RWM}	$V_{BR} @ I_T$		I_T	$I_R @ V_{RWM}$		$V_C @ I_{PP}$	I_{PP}	
		Min.	Max.		UNI-	BI-			
V	V	V	V	mA	μA	μA	V	A	

500 Watts

SA45	45	50.0	63.3	1	3	80.3	6.2
SA45A	45	50.0	57.5	1	3	72.7	6.9
SA48	48	53.3	67.5	1	3	85.5	5.8
SA48A	48	53.3	61.3	1	3	77.4	6.5
SA51	51	56.7	71.8	1	3	91.1	5.5
SA51A	51	56.7	65.2	1	3	82.4	6.1
SA54	54	60.0	76.0	1	3	96.3	5.2
SA54A	54	60.0	69.0	1	3	87.1	5.7
SA58	58	64.4	81.6	1	3	103.0	4.9
SA58A	58	64.4	74.1	1	3	93.6	5.3
SA60	60	66.7	84.5	1	3	107.0	4.7
SA60A	60	66.7	76.7	1	3	96.8	5.2
SA64	64	71.1	90.1	1	3	114	4.4
SA64A	64	71.1	81.8	1	3	103	4.9
SA70	70	77.8	98.6	1	3	125	4.0
SA70A	70	77.8	89.5	1	3	113	4.4
SA75	75	83.3	105.7	1	3	134	3.7
SA75A	75	83.3	95.8	1	3	121	4.1
SA78	78	86.7	109.8	1	3	139	3.6
SA78A	78	86.7	99.7	1	3	126	4.0
SA85	85	94.4	119.2	1	3	151	3.3
SA85A	85	94.4	108.2	1	3	137	3.6
SA90	90	100	126.5	1	3	160	3.1
SA90A	90	100	115.5	1	3	146	3.4
SA100	100	111	141.0	1	3	179	2.8
SA100A	100	111	128.0	1	3	162	3.1
SA110	110	122	154.5	1	3	196	2.6
SA110A	110	122	140.5	1	3	177	2.8
SA120	120	133	169.0	1	3	214	2.3
SA120A	120	133	153.0	1	3	193	2.0
SA130	130	144	182.5	1	3	231	2.2
SA130A	130	144	165.5	1	3	209	2.4
SA150	150	167	211.5	1	3	268	1.9
SA150A	150	167	192.5	1	3	243	2.1
SA160	160	178	226.0	1	3	287	1.7
SA160A	160	178	205.0	1	3	259	1.9
SA170	170	189	239.5	1	3	304	1.6
SA170A	170	189	217.5	1	3	275	1.8
SA180	180	198	253.8	1	3	322	1.6
SA180A	180	198	230.4	1	3	292	1.7
SA190	190	209	267.9	1	3	340	1.5
SA190A	190	209	243.2	1	3	308	1.6
SA200	200	220	282.0	1	3	358	1.4
SA200A	200	220	256.0	1	3	324	1.5
SA210	210	231	296.1	1	3	376	1.3
SA210A	210	231	268.8	1	3	340	1.5
SA220	220	242	310.2	1	3	394	1.3
SA220A	220	242	281.6	1	3	356	1.4

DO-15
(No.: 4)



T.V.S.

NOTE: 1. Suffix "A" indicates $\pm 5\%$ Tolerance.

2. For Bidirectional use "C" or "CA" Suffix for types. (e.g.: SA45C, SA45CA, SA220C, SA220CA,...etc.), electrical characteristics apply in both directions.

TYPE No.	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage Current		Max. Clamping Voltage	Max. Peak Pulse Current	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Package Outline Drawing No. Please refer to Page: 131~139 </div>
	V_{RWM}	$V_{BR} @ I_T$		I_T	$I_R @ V_{RWM}$		$V_C @ I_{PP}$	I_{PP}	
		Min.	Max.		UNI-	BI-			
	V	V	V	mA	μA	μA	V	A	

600 Watts

P6KE6.8	5.50	6.12	7.48	10	1000	2000	10.8	56.0
P6KE6.8A	5.80	6.45	7.14	10	1000	2000	10.5	57.0
P6KE7.5	6.05	6.75	8.25	10	500	1000	11.7	51.0
P6KE7.5A	6.40	7.13	7.88	10	500	1000	11.3	53.0
P6KE8.2	6.63	7.38	9.02	10	200	400	12.5	48.0
P6KE8.2A	7.02	7.79	8.61	10	200	400	12.1	50.0
P6KE9.1	7.37	8.19	10.0	1	50	100	13.8	44.0
P6KE9.1A	7.78	8.65	9.5	1	50	100	13.4	45.0
P6KE10	8.10	9.00	11.0	1	10	20	15.0	40.0
P6KE10A	8.55	9.50	10.5	1	10	20	14.5	41.0
P6KE11	8.92	9.90	12.1	1	5	10	16.2	37.0
P6KE11A	9.40	10.50	11.6	1	5	10	15.6	38.0
P6KE12	9.72	10.8	13.2	1	5		17.3	35.0
P6KE12A	10.2	11.4	12.6	1	5		16.7	36.0
P6KE13	10.5	11.7	14.3	1	5		19.0	32.0
P6KE13A	11.1	12.4	13.7	1	5		18.2	33.0
P6KE15	12.1	13.5	16.5	1	5		22.0	27.0
P6KE15A	12.8	14.3	15.8	1	5		21.2	28.0
P6KE16	12.9	14.4	17.6	1	5		23.5	26.0
P6KE16A	13.6	15.2	16.8	1	5		22.5	27.0
P6KE18	14.5	16.2	19.8	1	5		26.5	23.0
P6KE18A	15.3	17.1	18.9	1	5		25.2	24.0
P6KE20	16.2	18.0	22.0	1	5		29.1	21.0
P6KE20A	17.1	19.0	21.0	1	5		27.7	22.0
P6KE22	17.8	19.8	24.2	1	5		31.9	19.0
P6KE22A	18.8	20.9	23.1	1	5		30.6	20.0
P6KE24	19.4	21.6	26.4	1	5		34.7	17.0
P6KE24A	20.5	22.8	25.2	1	5		33.2	18.0
P6KE27	21.8	24.3	29.7	1	5		39.1	15.0
P6KE27A	23.1	25.7	28.4	1	5		37.5	16.0
P6KE30	24.3	27.0	33.0	1	5		43.5	14.0
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	10.6
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

DO-15
(No.: 4)



NOTE: 1. Suffix "A" indicates $\pm 5\%$ Tolerance.

2. For Bidirectional use "C" or "CA" Suffix for types. (e.g.: P6KE6.8C, P6KE6.8CA, P6KE47C, P6KE47CA,...etc.), electrical characteristics apply in both directions.

TRANSIENT VOLTAGE SUPPRESSORS (Axial Lead Type)



TYPE No.	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage Current		Max. Clamping Voltage	Max. Peak Pulse Current	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Package Outline Drawing No. Please refer to Page: 131~139 </div>
	V_{RWM}	$V_{BR} @ I_T$		I_T	$I_R @ V_{RWM}$		$V_C @ I_{PP}$	I_{PP}	
		Min.	Max.		UNI-	BI-			
V	V	V	V	mA	μA	μA	V	A	

600 Watts

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	45.6	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	5.5
P6KE75A	64.1	71.3	78.8	1	5	103	5.8
P6KE82	66.4	73.8	90.2	1	5	118	5.1
P6KE82A	70.1	77.9	86.1	1	5	113	5.3
P6KE91	73.7	81.9	100	1	5	131	4.5
P6KE91A	77.8	86.5	95.5	1	5	125	4.8
P6KE100	81.0	90.0	110	1	5	144	4.2
P6KE100A	85.5	95.0	105	1	5	137	4.4
P6KE110	89.2	99.0	121	1	5	158	3.8
P6KE110A	94.0	105	116	1	5	152	4.0
P6KE120	97.2	108	132	1	5	173	3.5
P6KE120A	102	114	126	1	5	165	3.6
P6KE130	105	117	143	1	5	187	3.2
P6KE130A	111	124	137	1	5	179	3.3
P6KE150	121	135	165	1	5	215	2.8
P6KE150A	128	143	158	1	5	207	2.9
P6KE160	130	144	176	1	5	230	2.6
P6KE160A	136	152	168	1	5	219	2.7
P6KE170	138	153	187	1	5	244	2.5
P6KE170A	145	162	179	1	5	234	2.6
P6KE180	146	162	198	1	5	258	2.3
P6KE180A	154	171	189	1	5	246	2.4
P6KE200	162	180	220	1	5	287	2.1
P6KE200A	171	190	210	1	5	274	2.2
P6KE220	175	198	242	1	5	344	1.8
P6KE220A	185	209	231	1	5	328	1.9
P6KE250	202	225	275	1	5	360	1.7
P6KE250A	214	237	263	1	5	344	1.8
P6KE300	243	270	330	1	5	430	1.40
P6KE300A	256	285	315	1	5	414	1.50
P6KE350	284	315	385	1	5	504	1.20
P6KE350A	300	332	368	1	5	482	1.30
P6KE400	324	360	440	1	5	574	1.05
P6KE400A	342	380	420	1	5	548	1.10
P6KE440	356	396	484	1	5	631	0.99
P6KE440A	376	418	462	1	5	600	1.04

DO-15
(No.: 4)



NOTE: 1. Suffix "A" indicates $\pm 5\%$ Tolerance.

2. For Bidirectional use "C" or "CA" Suffix for types. (e.g.: P6KE51C, P6KE51CA, P6KE440C, P6KE440CA,....etc.), electrical characteristics apply in both directions.

TYPE No.	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage Current		Max. Clamping Voltage	Max. Peak Pulse Current	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Package Outline Drawing No. Please refer to Page: 131~139 </div>
	V _{RWM}	V _{BR} @ I _T		I _T	I _R @ V _{RWM}		V _C @ I _{PP}	I _{PP}	
		Min.	Max.		UNI-	BI-			
V	V	V	mA	μA	μA	V	A		

1500 Watts

1.5KE6.8	5.50	6.12	7.48	10	1000	2000	10.8	139
1.5KE6.8A	5.80	6.45	7.14	10	1000	2000	10.5	143
1.5KE7.5	6.05	6.75	8.25	10	500	1000	11.7	128
1.5KE7.5A	6.40	7.13	7.88	10	500	1000	11.3	132
1.5KE8.2	6.63	7.38	9.02	10	200	400	12.5	120
1.5KE8.2A	7.02	7.79	8.61	10	200	400	12.1	124
1.5KE9.1	7.37	8.19	10.0	1	50	100	13.8	109
1.5KE9.1A	7.78	8.65	9.50	1	50	100	13.4	112
1.5KE10	8.10	9.00	11.0	1	10	20	15.0	100
1.5KE10A	8.55	9.50	10.5	1	10	20	14.5	103
1.5KE11	8.92	9.90	12.1	1	5	10	16.2	93.0
1.5KE11A	9.40	10.5	11.6	1	5	10	15.6	96.0
1.5KE12	9.72	10.8	13.2	1	5		17.3	87.0
1.5KE12A	10.2	11.4	12.6	1	5		16.7	90.0
1.5KE13	10.5	11.7	14.3	1	5		19.0	79.0
1.5KE13A	11.1	12.4	13.7	1	5		18.2	82.0
1.5KE15	12.1	13.5	16.5	1	5		22.0	68.0
1.5KE15A	12.8	14.3	15.8	1	5		21.2	71.0
1.5KE16	12.9	14.4	17.6	1	5		23.5	64.0
1.5KE16A	13.6	15.2	16.8	1	5		22.5	67.0
1.5KE18	14.5	16.2	19.8	1	5		26.5	56.5
1.5KE18A	15.3	17.1	18.9	1	5		25.2	59.5
1.5KE20	16.2	18.0	22.0	1	5		29.1	51.5
1.5KE20A	17.1	19.0	21.0	1	5		27.7	54.0
1.5KE22	17.8	19.8	24.2	1	5		31.9	47.0
1.5KE22A	18.8	20.9	23.1	1	5		30.6	49.0
1.5KE24	19.4	21.6	26.4	1	5		34.7	43.0
1.5KE24A	20.5	22.8	25.2	1	5		33.2	45.0
1.5KE27	21.8	24.3	29.7	1	5		39.1	38.5
1.5KE27A	23.1	25.7	28.4	1	5		37.5	40.0
1.5KE30	24.3	27.0	33.0	1	5		43.5	34.5
1.5KE30A	25.6	28.5	31.5	1	5		41.4	36.0
1.5KE33	26.8	29.7	36.3	1	5		47.7	31.5
1.5KE33A	28.2	31.4	34.7	1	5		45.7	33.0
1.5KE36	29.1	32.4	39.6	1	5		52.0	29.0
1.5KE36A	30.8	34.2	37.8	1	5		49.9	30.0
1.5KE39	31.6	35.1	42.9	1	5		56.4	26.5
1.5KE39A	33.3	37.1	41.0	1	5		53.9	28.0
1.5KE43	34.8	38.7	47.3	1	5		61.9	24.0
1.5KE43A	36.8	40.9	45.2	1	5		59.3	25.3
1.5KE47	38.1	42.3	51.7	1	5		67.8	22.2
1.5KE47A	40.2	44.7	49.4	1	5		64.8	23.2

DO-201AE
(No.: 5)



NOTE: 1. Suffix "A" indicates ±5% Tolerance.

2. For Bidirectional use "C" or "CA" Suffix for types. (e.g.: 1.5KE6.8C, 1.5KE6.8CA, 1.5KE47C, 1.5KE47CA,...etc.), electrical characteristics apply in both directions.

TRANSIENT VOLTAGE SUPPRESSORS (Axial Lead Type)



TYPE No.	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage Current		Max. Clamping Voltage	Max. Peak Pulse Current	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Package Outline Drawing No. Please refer to Page: 131~139 </div>
	V _{RWM}	V _{BR} @ I _T		I _T	I _R @ V _{RWM}		V _C @ I _{PP}	I _{PP}	
		Min.	Max.		UNI-	BI-			
V	V	V	mA	μA	μA	V	A		

1500 Watts

1.5KE51	41.3	45.9	56.1	1	5	73.5	20.4
1.5KE51A	43.6	48.5	53.6	1	5	70.1	21.4
1.5KE56	45.6	50.4	61.6	1	5	80.5	18.6
1.5KE56A	47.8	53.2	58.8	1	5	77.0	19.5
1.5KE62	50.2	55.8	68.2	1	5	89.0	16.9
1.5KE62A	53.0	58.9	65.1	1	5	85.0	17.7
1.5KE68	55.1	61.2	74.8	1	5	98.0	15.3
1.5KE68A	58.1	64.6	71.4	1	5	92.0	16.3
1.5KE75	60.7	67.5	82.5	1	5	108	13.9
1.5KE75A	64.1	71.3	78.8	1	5	103	14.6
1.5KE82	66.4	73.8	90.2	1	5	118	12.7
1.5KE82A	70.1	77.9	86.1	1	5	113	13.3
1.5KE91	73.7	81.9	100	1	5	131	11.4
1.5KE91A	77.8	86.5	95.5	1	5	125	12.0
1.5KE100	81.0	90.0	110	1	5	144	10.4
1.5KE100A	85.5	95.0	105	1	5	137	11.0
1.5KE110	89.2	99.0	121	1	5	158	9.5
1.5KE110A	94.0	105	116	1	5	152	9.9
1.5KE120	97.2	108	132	1	5	173	8.7
1.5KE120A	102	114	126	1	5	165	9.1
1.5KE130	105	117	143	1	5	187	8.0
1.5KE130A	111	124	137	1	5	179	8.4
1.5KE150	121	135	165	1	5	215	7.0
1.5KE150A	128	143	158	1	5	207	7.2
1.5KE160	130	144	176	1	5	230	6.5
1.5KE160A	136	152	168	1	5	219	6.8
1.5KE170	138	153	187	1	5	244	6.2
1.5KE170A	145	162	179	1	5	234	6.4
1.5KE180	146	162	198	1	5	258	5.8
1.5KE180A	154	171	189	1	5	246	6.1
1.5KE200	162	180	220	1	5	287	5.2
1.5KE200A	171	190	210	1	5	274	5.5
1.5KE220	175	198	242	1	5	344	4.3
1.5KE220A	185	209	231	1	5	328	4.6
1.5KE250	202	225	275	1	5	360	4.3
1.5KE250A	214	237	263	1	5	344	4.5
1.5KE300	243	270	330	1	5	430	3.6
1.5KE300A	256	285	315	1	5	414	3.8
1.5KE350	284	315	385	1	5	504	3.1
1.5KE350A	300	332	368	1	5	482	3.2
1.5KE400	324	360	440	1	5	574	2.7
1.5KE400A	342	380	420	1	5	548	2.8
1.5KE440	356	396	484	1	5	631	2.4
1.5KE440A	376	418	462	1	5	600	2.6

DO-201AE
(No.: 5)



NOTE: 1. Suffix "A" indicates ±5% Tolerance.

2. For Bidirectional use "C" or "CA" Suffix for types. (e.g.: 1.5KE51C, 1.5KE51CA, 1.5KE440C, 1.5KE440CA,...etc.), electrical characteristics apply in both directions.

TYPE No.	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage Current		Max. Clamping Voltage	Max. Peak Pulse Current	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Package Outline Drawing No. Please refer to Page: 131~139 </div>
	V _{RWM}	V _{BR} @ I _T		I _T	I _R @ V _{RWM}		V _C @ I _{PP}	I _{PP}	
		Min.	Max.		UNI-	BI-			
V	V	V	mA	µA	µA	V	A		

3000 Watts

3KP5.0	5.0	6.40	7.55	10	1000	2000	9.6	312.5
3KP5.0A	5.0	6.40	7.25	10	1000	2000	9.2	326.0
3KP6.0	6.0	6.67	8.45	10	1000	2000	11.4	263.2
3KP6.0A	6.0	6.67	7.67	10	1000	2000	10.3	291.3
3KP6.5	6.5	7.22	9.14	10	500	1000	12.3	243.9
3KP6.5A	6.5	7.22	8.30	10	500	1000	11.2	267.9
3KP7.0	7.0	7.78	9.86	10	200	400	13.3	225.6
3KP7.0A	7.0	7.78	8.95	10	200	400	12.0	250.0
3KP7.5	7.5	8.33	10.67	1	100	200	14.3	209.8
3KP7.5A	7.5	8.33	9.58	1	100	200	12.9	232.6
3KP8.0	8.0	8.89	11.30	1	50	100	15.0	220.0
3KP8.0A	8.0	8.89	10.23	1	50	100	13.6	220.6
3KP8.5	8.5	9.44	11.92	1	25	50	15.9	188.8
3KP8.5A	8.5	9.44	10.82	1	25	50	14.4	208.4
3KP9.0	9.0	10.0	12.6	1	10	20	16.9	177.4
3KP9.0A	9.0	10.0	11.5	1	10	20	15.4	194.8
3KP10	10	11.1	14.1	1	5		18.8	159.6
3KP10A	10	11.1	12.8	1	5		17.0	176.4
3KP11	11	12.2	15.4	1	5		20.1	149.2
3KP11A	11	12.2	14.0	1	5		18.2	184.8
3KP12	12	13.3	16.9	1	5		22.0	136.4
3KP12A	12	13.3	15.3	1	5		19.9	150.6
3KP13	13	14.4	18.2	1	5		23.8	126.0
3KP13A	13	14.4	16.5	1	5		21.5	139.4
3KP14	14	15.6	19.8	1	5		25.8	116.2
3KP14A	14	15.6	17.9	1	5		23.2	129.4
3KP15	15	16.7	21.1	1	5		26.9	111.6
3KP15A	15	16.7	19.2	1	5		24.4	123.0
3KP16	16	17.8	22.6	1	5		28.8	104.2
3KP16A	16	17.8	20.5	1	5		26.0	115.4
3KP17	17	18.9	23.9	1	5		30.5	98.4
3KP17A	17	18.9	21.7	1	5		27.6	106.6
3KP18	18	20.0	25.3	1	5		32.2	93.2
3KP18A	18	20.0	23.3	1	5		29.2	102.8
3KP20	20	22.2	28.1	1	5		35.8	83.8
3KP20A	20	22.2	25.5	1	5		32.4	92.6
3KP22	22	24.4	30.9	1	5		39.4	76.2
3KP22A	22	24.4	28.0	1	5		35.5	84.4
3KP24	24	26.7	33.8	1	5		43.0	69.8
3KP24A	24	26.7	30.7	1	5		38.9	77.2
3KP26	26	28.9	36.6	1	5		46.6	64.4
3KP26A	26	28.9	33.2	1	5		42.1	71.2
3KP28	28	31.1	39.4	1	5		50.0	60.0
3KP28A	28	31.1	35.8	1	5		45.4	66.0
3KP30	30	33.3	42.2	1	5		53.5	56.0
3KP30A	30	33.3	38.3	1	5		48.4	62.0
3KP33	33	36.7	46.5	1	5		59.0	50.4
3KP33A	33	36.7	42.2	1	5		53.3	56.2
3KP36	36	40.0	50.7	1	5		64.3	46.6
3KP36A	36	40.0	46.0	1	5		58.1	51.6
3KP40	40	44.4	56.3	1	5		71.4	42.0
3KP40A	40	44.4	51.1	1	5		64.5	46.4
3KP43	43	47.8	60.5	1	5		76.7	39.2
3KP43A	43	47.8	54.9	1	5		69.4	43.2

R-6
(No.: 9)



NOTE: 1. Suffix "A" indicates ±5% Tolerance.

2. For Bidirectional use "C" or "CA" Suffix for types. (e.g.: 3KP5.0C, 3KP5.0CA, 3KP43C, 3KP43CA....etc.), electrical characteristics apply in both directions.

TRANSIENT VOLTAGE SUPPRESSORS (Axial Lead Type)



TYPE No.	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage Current		Max. Clamping Voltage	Max. Peak Pulse Current	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Package Outline Drawing No. Please refer to Page: 131~139 </div>
	V _{RWM}	V _{BR} @ I _T		I _T	I _R @ V _{RWM}		V _C @ I _{PP}	I _{PP}	
		Min.	Max.		UNI-	BI-			
V	V	V	mA	μA	μA	V	A		

3000 Watts

3KP45	45	50.0	63.3	1	5	80.3	37.4
3KP45A	45	50.0	57.5	1	5	72.7	41.2
3KP48	48	53.3	67.5	1	5	85.5	35.0
3KP48A	48	53.3	61.3	1	5	77.4	38.8
3KP51	51	56.7	71.8	1	5	91.1	37.0
3KP51A	51	56.7	65.2	1	5	82.4	36.4
3KP54	54	60.0	76.0	1	5	96.3	31.2
3KP54A	54	60.0	69.0	1	5	87.1	34.4
3KP58	58	64.4	81.6	1	5	103	39.2
3KP58A	58	64.4	74.1	1	5	93.6	32.0
3KP60	60	66.7	84.5	1	5	107	28.0
3KP60A	60	66.7	76.7	1	5	96.8	31.0
3KP64	64	71.1	90.1	1	5	114	26.4
3KP64A	64	71.1	81.8	1	5	103	29.2
3KP70	70	77.8	98.6	1	5	125	24.0
3KP70A	70	77.8	89.5	1	5	113	26.6
3KP75	75	83.3	105.7	1	5	134	22.4
3KP75A	75	83.3	95.8	1	5	121	24.8
3KP78	78	86.7	109.8	1	5	139	21.6
3KP78A	78	86.7	99.7	1	5	126	22.8
3KP85	85	94.4	119.2	1	5	151	19.8
3KP85A	85	94.4	108.2	1	5	137	20.8
3KP90	90	100	126.5	1	5	160	18.8
3KP90A	90	100	115.5	1	5	146	20.6
3KP100	100	111	141.0	1	5	179	16.6
3KP100A	100	111	128.0	1	5	162	18.6
3KP110	110	122	154.5	1	5	196	15.4
3KP110A	110	122	140.5	1	5	177	16.8
3KP120	120	133	169.0	1	5	214	14.0
3KP120A	120	133	153.0	1	5	193	15.6
3KP130	130	144	182.5	1	5	231	13.0
3KP130A	130	144	165.5	1	5	209	14.4
3KP150	150	167	211.5	1	5	268	11.2
3KP150A	150	167	192.5	1	5	243	12.4
3KP160	160	178	226.0	1	5	287	10.4
3KP160A	160	178	205.0	1	5	259	11.6
3KP170	170	189	239.5	1	5	304	9.8
3KP170A	170	189	217.5	1	5	275	11.0
3KP180	180	198	253.8	1	5	322	9.3
3KP180A	180	198	230.4	1	5	292	10.3
3KP190	190	209	267.9	1	5	340	8.8
3KP190A	190	209	243.2	1	5	308	9.7
3KP200	200	220	282.0	1	5	358	8.4
3KP200A	200	220	256.0	1	5	324	9.3
3KP210	210	231	296.1	1	5	376	7.8
3KP210A	210	231	268.8	1	5	340	8.8
3KP220	220	242	310.2	1	5	394	7.6
3KP220A	220	242	281.6	1	5	356	8.4

R-6
(No.: 9)



NOTE: 1. Suffix "A" indicates ±5% Tolerance.

2. For Bidirectional use "C" or "CA" Suffix for types. (e.g.: 3KP45C, 3KP45CA, 3KP220C, 3KP220CA,...etc.), electrical characteristics apply in both directions.

TYPE No.	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage Current		Max. Clamping Voltage	Max. Peak Pulse Current	Package Outline Drawing No. Please refer to Page: 131~139
	V _{RWM}	V _{BR} @ I _T		I _T	I _R @ V _{RWM}		V _C @ I _{PP}	I _{PP}	
		Min.	Max.		UNI-	BI-			
	V	V	V	mA	µA	µA	V	A	

5000 Watts

5KP5.0	5.0	6.40	7.55	50	5000	10000	9.6	520
5KP5.0A	5.0	6.40	7.25	50	5000	10000	9.2	543
5KP6.0	6.0	6.67	8.45	50	5000	10000	11.4	439
5KP6.0A	6.0	6.67	7.67	50	5000	10000	10.3	485
5KP6.5	6.5	7.22	9.14	50	2000	4000	12.3	407
5KP6.5A	6.5	7.22	8.30	50	2000	4000	11.2	447
5KP7.0	7.0	7.78	9.86	50	1000	2000	13.3	378
5KP7.0A	7.0	7.78	8.95	50	1000	2000	12.0	417
5KP7.5	7.5	8.33	10.67	5	250	500	14.3	350
5KP7.5A	7.5	8.33	9.58	5	250	500	12.9	388
5KP8.0	8.0	8.89	11.30	5	150	300	15.0	333
5KP8.0A	8.0	8.89	10.23	5	150	300	13.6	367
5KP8.5	8.5	9.44	11.92	5	50	100	15.9	314
5KP8.5A	8.5	9.44	10.82	5	50	100	14.4	347
5KP9.0	9.0	10.0	12.6	5	20	40	16.9	295
5KP9.0A	9.0	10.0	11.5	5	20	40	15.4	325
5KP10	10	11.1	14.1	5	10		18.8	266
5KP10A	10	11.1	12.8	5	10		17.0	294
5KP11	11	12.2	15.4	5	10		20.1	249
5KP11A	11	12.2	14.0	5	10		18.2	274
5KP12	12	13.3	16.9	5	10		22.0	227
5KP12A	12	13.3	15.3	5	10		19.9	251
5KP13	13	14.4	18.2	5	10		23.8	210
5KP13A	13	14.4	16.5	5	10		21.5	232
5KP14	14	15.6	19.8	5	10		25.8	194
5KP14A	14	15.6	17.9	5	10		23.2	215
5KP15	15	16.7	21.1	5	10		26.9	188
5KP15A	15	16.7	19.2	5	10		24.4	206
5KP16	16	17.8	22.6	5	10		28.8	176
5KP16A	16	17.8	20.5	5	10		26.0	192
5KP17	17	18.9	23.9	5	10		30.5	164
5KP17A	17	18.9	21.7	5	10		27.6	181
5KP18	18	20.0	25.3	5	10		32.2	155
5KP18A	18	20.0	23.3	5	10		29.2	172
5KP20	20	22.2	28.1	5	10		35.8	139
5KP20A	20	22.2	25.5	5	10		32.4	154
5KP22	22	24.4	30.9	5	10		39.4	127
5KP22A	22	24.4	28.0	5	10		35.5	141
5KP24	24	26.7	33.8	5	10		43.0	116
5KP24A	24	26.7	30.7	5	10		38.9	128
5KP26	26	28.9	36.6	5	10		46.6	107
5KP26A	26	28.9	33.2	5	10		42.1	119
5KP28	28	31.1	39.4	5	10		50.0	99
5KP28A	28	31.1	35.8	5	10		45.4	110
5KP30	30	33.3	42.2	5	10		53.5	93
5KP30A	30	33.3	38.3	5	10		48.4	103
5KP33	33	36.7	46.5	5	10		59.0	85
5KP33A	33	36.7	42.2	5	10		53.3	94
5KP36	36	40.0	50.7	5	10		64.3	78
5KP36A	36	40.0	46.0	5	10		58.1	85
5KP40	40	44.4	56.3	5	10		71.4	70
5KP40A	40	44.4	51.1	5	10		64.5	78
5KP43	43	47.8	60.5	5	10		76.7	65
5KP43A	43	47.8	54.9	5	10		69.4	72

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(No.: 9)



NOTE: 1. Suffix "A" indicates ±5% Tolerance.

2. For Bidirectional use "C" or "CA" Suffix for types. (e.g.: 5KP5.0C, 5KP5.0CA, 5KP43C, 5KP43CA,...etc.), electrical characteristics apply in both directions.

TRANSIENT VOLTAGE SUPPRESSORS (Axial Lead Type)



TYPE No.	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage Current		Max. Clamping Voltage	Max. Peak Pulse Current	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Package Outline Drawing No. Please refer to Page: 131~139 </div>
	V _{RWM}	V _{BR} @ I _T		I _T	I _R @ V _{RWM}		V _C @ I _{PP}	I _{PP}	
		Min.	Max.		UNI-	BI-			
V	V	V	mA	μA	μA	V	A		

5000 Watts

5KP45	45	50.0	63.3	5	10	80.3	62
5KP45A	45	50.0	57.5	5	10	72.7	69
5KP48	48	53.3	67.5	5	10	85.5	58
5KP48A	48	53.3	61.3	5	10	77.4	65
5KP51	51	56.7	71.8	5	10	91.1	55
5KP51A	51	56.7	65.2	5	10	82.4	61
5KP54	54	60.0	76.0	5	10	96.3	52
5KP54A	54	60.0	69.0	5	10	87.1	57
5KP58	58	64.4	81.6	5	10	103	49
5KP58A	58	64.4	74.1	5	10	93.6	53
5KP60	60	66.7	84.5	5	10	107	47
5KP60A	60	66.7	76.7	5	10	96.8	52
5KP64	64	71.1	90.1	5	10	114	44
5KP64A	64	71.1	81.8	5	10	103	49
5KP70	70	77.8	98.6	5	10	125	40
5KP70A	70	77.8	89.5	5	10	113	44
5KP75	75	83.3	105.7	5	10	134	37
5KP75A	75	83.3	95.8	5	10	121	41
5KP78	78	86.7	109.8	5	10	139	36
5KP78A	78	86.7	99.7	5	10	126	40
5KP85	85	94.4	119.2	5	10	151	33
5KP85A	85	94.4	108.2	5	10	137	36
5KP90	90	100	126.5	5	10	160	31
5KP90A	90	100	115.5	5	10	146	34
5KP100	100	111	141.0	5	10	179	28
5KP100A	100	111	128.0	5	10	162	31
5KP110	110	122	154.5	5	10	196	26
5KP110A	110	122	140.5	5	10	177	28
5KP120	120	133	169.0	5	10	214	23
5KP120A	120	133	153.0	5	10	193	20
5KP130	130	144	182.5	5	10	231	22
5KP130A	130	144	165.5	5	10	209	24
5KP150	150	167	211.5	5	10	268	19
5KP150A	150	167	192.5	5	10	243	21
5KP160	160	178	226.0	5	10	287	17
5KP160A	160	178	205.0	5	10	259	19
5KP170	170	189	239.5	5	10	304	16
5KP170A	170	189	217.5	5	10	275	18
5KP180	180	198	253.8	1	5	322	16
5KP180A	180	198	230.4	1	5	292	17
5KP190	190	209	267.9	1	5	240	15
5KP190A	190	209	243.2	1	5	308	16
5KP200	200	220	282.0	1	5	358	14
5KP200A	200	220	256.0	1	5	324	15

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(No.: 9)



NOTE: 1. Suffix "A" indicates ±5% Tolerance.

2. For Bidirectional use "C" or "CA" Suffix for types. (e.g.: 5KP45C, 5KP45CA, 5KP200C, 5KP200CA,...etc.), electrical characteristics apply in both directions.