

5KP5.0C SERIES

V_{RM} : 5.0 - 180 Volts

P_{PK} : 5000 Watts

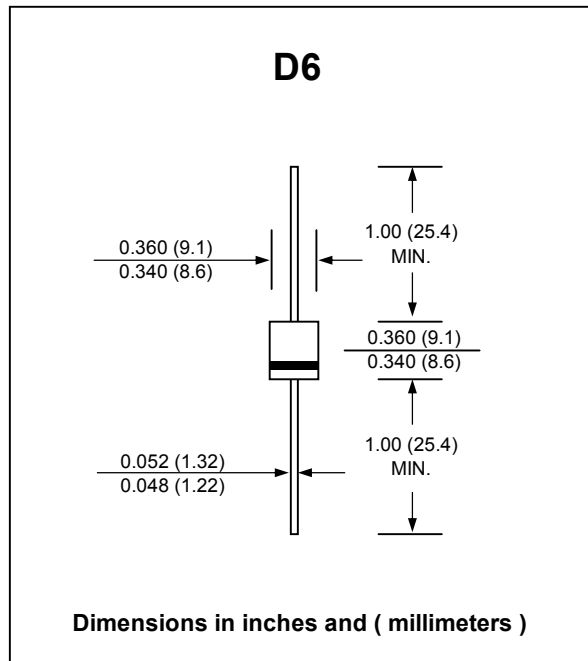
FEATURES :

- * 5000W Peak Pulse Power
- * Excellent clamping capability
- * Low incremental surge resistance
- * Fast response time : typically less than 1.0 ps from 0 volt to V_{BR(min.)}
- * Typical I_R less than 1μA above 10V
- * Pb / RoHS Free

MECHANICAL DATA

- * Case : Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Cathode polarity band
- * Mounting position : Any
- * Weight : 2.1 grams

BI-DIRECTIONAL TRANSIENT VOLTAGE SUPPRESSOR



DEVICES FOR UNIPOLAR APPLICATIONS

For uni-directional without "C"

Electrical characteristics apply in both directions

MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Unit
Peak Pulse Power Dissipation at tp = 1ms (Note 1, Fig. 4)	P _{PK}	Minimum 5000	W
Steady State Power Dissipation at T _L = 75 °C Lead Lengths 0.375", (9.5mm) (Note 2)	P _D	8.0	W
Operating and Storage Temperature Range	T _J , T _{STG}	- 55 to + 150	°C

Notes :

- (1) Non-repetitive Current pulse, per Fig. 2 and derated above Ta = 25 °C per Fig. 1
- (2) Mounted on Copper Leaf area of 0.79 in² (20mm²).

ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type	Breakdown Voltage @ I _T (Note 1)			Reverse Stand off Voltage	Maximum Reverse Leakage @ V _{RM}	Maximum Peak Pulse Current (Note2)	Maximum Clamping Voltage @ I _{PPM}	Maximum Temperature Coefficient of V _{BR} of V _{BR} (%/°C)				
	V _{BR} (V)		I _T						V _{RM}	I _R	I _{PPM}	V _C
	Min.	Max.	(mA)						(V)	(μA)	(A)	(V)
5KP5.0C	6.40	7.30	50	5.0	10000	520	9.60	0.057				
5KP5.0CA	6.40	7.00	50	5.0	10000	543	9.20	0.057				
5KP6.0C	6.67	8.15	50	6.0	10000	439	11.4	0.061				
5KP6.0CA	6.67	7.37	50	6.0	10000	485	10.3	0.061				
5KP6.5C	7.22	8.82	50	6.5	4000	407	12.3	0.065				
5KP6.5CA	7.22	7.98	50	6.5	4000	447	11.2	0.065				
5KP7.0C	7.78	9.51	5.0	7.0	2000	378	13.3	0.068				
5KP7.0CA	7.78	8.60	5.0	7.0	2000	417	12.0	0.068				
5KP7.5C	8.33	10.2	5.0	7.5	500	350	14.3	0.073				
5KP7.5CA	8.33	9.21	5.0	7.5	500	388	12.9	0.073				
5KP8.0C	8.89	10.9	5.0	8.0	300	333	15.0	0.075				
5KP8.0CA	8.89	9.83	5.0	8.0	300	367	13.6	0.075				
5KP8.5C	9.44	11.5	5.0	8.5	100	314	15.9	0.078				
5KP8.5CA	9.44	10.4	5.0	8.5	100	347	14.4	0.078				
5KP9.0C	10.0	12.2	5.0	9.0	40	295	16.9	0.081				
5KP9.0CA	10.0	11.1	5.0	9.0	40	325	15.4	0.081				
5KP10C	11.1	13.6	5.0	10	30	266	18.8	0.084				
5KP10CA	11.1	12.3	5.0	10	30	294	17.0	0.084				
5KP11C	12.2	14.9	5.0	11	10	249	20.1	0.086				
5KP11CA	12.2	13.5	5.0	11	10	274	18.2	0.086				
5KP12C	13.3	16.3	5.0	12	10	227	22.0	0.088				
5KP12CA	13.3	14.7	5.0	12	10	251	19.9	0.088				
5KP13C	14.4	17.6	5.0	13	10	210	23.8	0.090				
5KP13CA	14.4	15.9	5.0	13	10	232	21.5	0.090				
5KP14C	15.6	19.1	5.0	14	10	194	25.8	0.092				
5KP14CA	15.6	17.2	5.0	14	10	215	23.2	0.092				
5KP15C	16.7	20.4	5.0	15	10	188	26.9	0.094				
5KP15CA	16.7	18.5	5.0	15	10	206	24.4	0.094				
5KP16C	17.8	21.8	5.0	16	10	176	28.8	0.096				
5KP16CA	17.8	19.7	5.0	16	10	192	26.0	0.096				
5KP17C	18.9	23.1	5.0	17	10	164	30.5	0.097				
5KP17CA	18.9	20.9	5.0	17	10	181	27.6	0.097				
5KP18C	20.0	24.4	5.0	18	10	155	32.2	0.098				
5KP18CA	20.0	22.1	5.0	18	10	172	29.2	0.098				
5KP20C	22.2	27.1	5.0	20	10	139	35.8	0.099				
5KP20CA	22.2	24.5	5.0	20	10	154	32.4	0.099				
5KP22C	24.4	29.8	5.0	22	10	127	39.4	0.100				
5KP22CA	24.4	26.9	5.0	22	10	141	35.5	0.100				
5KP24C	26.7	32.6	5.0	24	10	116	43.0	0.101				
5KP24CA	26.7	29.5	5.0	24	10	128	38.9	0.101				
5KP26C	28.9	35.3	5.0	26	10	107	46.6	0.101				
5KP26CA	28.9	31.9	5.0	26	10	119	42.1	0.101				
5KP28C	31.1	38.0	5.0	28	10	99	50.1	0.102				
5KP28CA	31.1	34.4	5.0	28	10	110	45.4	0.102				
5KP30C	33.3	40.7	5.0	30	10	93	53.5	0.103				
5KP30CA	33.3	36.8	5.0	30	10	103	48.4	0.103				
5KP33C	36.7	44.9	5.0	33	10	85	59.0	0.104				
5KP33CA	36.7	40.6	5.0	33	10	94	53.3	0.104				

ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type	Breakdown Voltage @ I _T (Note 1)			Reverse Stand off Voltage	Maximum Reverse Leakage @ V _{RM}	Maximum Peak Pulse Current (Note2)	Maximum Clamping Voltage @ I _{PPM}	Maximum Temperature Coefficient of V _{BR} (%/°C)
	V _{BR} (V)		I _T					
	Min.	Max.	(mA)					
	(V)				(μA)	(A)	(V)	
5KP36C	40.0	48.9	5.0	36	10	78	64.3	0.104
5KP36CA	40.0	44.2	5.0	36	10	86	58.1	0.104
5KP40C	44.4	54.3	5.0	40	10	70	71.4	0.105
5KP40CA	44.4	49.1	5.0	40	10	78	64.5	0.105
5KP43C	47.8	58.4	5.0	43	10	65	76.7	0.105
5KP43CA	47.8	52.8	5.0	43	10	72	69.4	0.105
5KP45C	50.0	61.1	5.0	45	10	62	80.3	0.106
5KP45CA	50.0	55.3	5.0	45	10	69	72.7	0.106
5KP48C	53.3	65.2	5.0	48	10	58	85.5	0.106
5KP48CA	53.3	58.9	5.0	48	10	65	77.4	0.106
5KP51C	56.7	69.3	5.0	51	10	55	91.1	0.107
5KP51CA	56.7	62.7	5.0	51	10	61	82.4	0.107
5KP54C	60.0	73.3	5.0	54	10	52	96.3	0.107
5KP54CA	60.0	66.3	5.0	54	10	57	87.1	0.107
5KP58C	64.4	78.7	5.0	58	10	49	103	0.107
5KP58CA	64.4	71.2	5.0	58	10	53	94	0.107
5KP60C	66.7	81.5	5.0	60	10	47	107	0.108
5KP60CA	66.7	73.7	5.0	60	10	52	97	0.108
5KP64C	71.1	96.9	5.0	64	10	44	114	0.108
5KP64CA	71.1	78.6	5.0	64	10	49	103	0.108
5KP70C	77.6	95.1	5.0	70	10	40	125	0.108
5KP70CA	77.6	86.0	5.0	70	10	44	113	0.108
5KP75C	83.3	102	5.0	75	10	37	134	0.108
5KP75CA	83.3	92.1	5.0	75	10	41	121	0.108
5KP78C	86.7	106	5.0	78	10	36	139	0.108
5KP78CA	86.7	95.8	5.0	78	10	40	126	0.108
5KP85C	94.4	115	5.0	85	10	33	151	0.108
5KP85CA	94.4	104	5.0	85	10	36	137	0.110
5KP90C	100	122	5.0	90	10	31	160	0.110
5KP90CA	100	111	5.0	90	10	34	146	0.110
5KP100C	111	136	5.0	100	10	28	179	0.110
5KP100CA	111	123	5.0	100	10	31	162	0.110
5KP110C	122	149	5.0	110	10	26	196	0.112
5KP110CA	122	135	5.0	110	10	28	177	0.112
5KP120C	133	163	5.0	120	10	24	211	0.112
5KP120CA	133	147	5.0	120	10	26	194	0.112
5KP150C	167	204	5.0	150	10	19	263	0.112
5KP150CA	167	184	5.0	150	10	21	242	0.112
5KP160C	178	217	5.0	160	10	18	281	0.114
5KP160CA	178	196	5.0	160	10	19	258	0.114
5KP180C	200	244	5.0	180	10	16	316	0.114
5KP180CA	200	221	5.0	180	10	17	290	0.114

Note:

(1) V_{BR} measured after I_T applied for 300 $\mu s.$, I_T = square wave pulse or equivalent.

RATING AND CHARACTERISTIC CURVES (5KP5.0C SERIES)

FIG.1 - PULSE DERATING CURVE

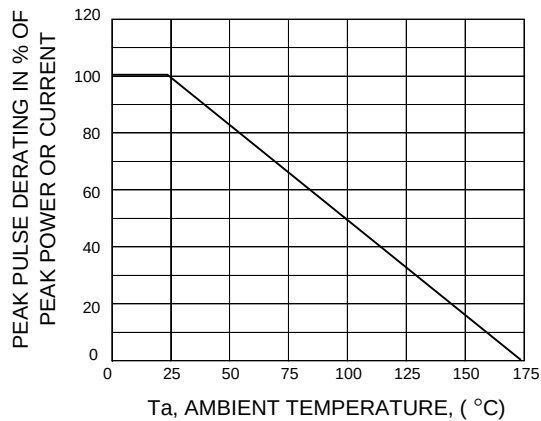


FIG.2 - PULSE WAVEFORM

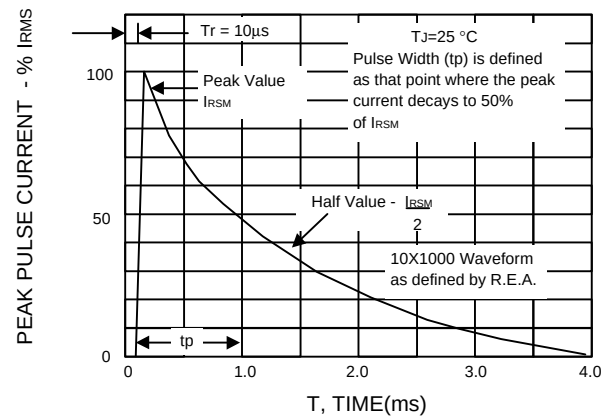


FIG.3 - STEADY STATE POWER DERATING

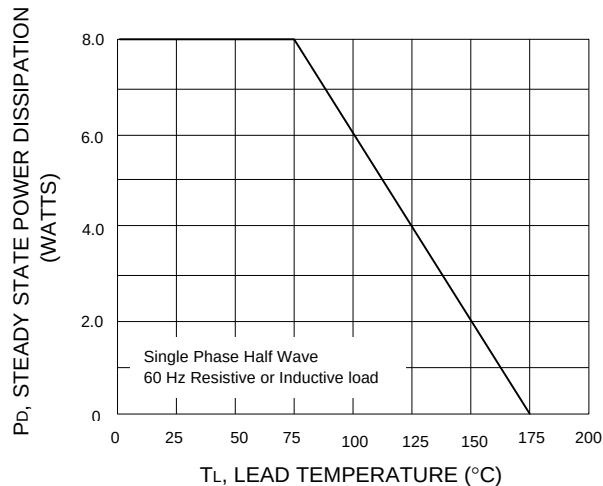


FIG.4 - PULSE RATING CURVE

