

R6

Dimensions in inches and (millimeters)



Ordering Information	
Part Number	Compound
5KP SERIES	General
5KP SERIES-H	Halogen Free
5KP SERIES-Q	Automotive

PRIMARY CHARACTERISTICS	
VBR	5~190V
PPPM	5000W
PD	8W
T _J max	150°C

Features

- Constructed with Glass Passivated Die
- 5000W peak pulse power Dissipation
- Excellent clamping capability
- Uni and Bidirectional unit
- Very fast response time
- Component in accordance to RoHS 2002/95/EC
- AEC-Q101 Qualified

Mechanical Data

- Cases:R6
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead free Plating (Tin Finish)
Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 2.04 grams (approximate)

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Peak power dissipation with a 10/1000µs waveform	PPP	Minimum5000	W
Power dissipation on infinite heatsink at TL=75°C	PD	8	W
Peak forward surge current, 8.3ms single half sine-wave unidirectional only(1)	I _{FSM}	500.0	A
Operating and Storage Temperature Range	T _J , TSTG	-55 ~ +150	°C

Note:

(1) Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.



5KP SERIES



Transient Voltage Suppressors(5000W)

Part Number		Reverse Stand-off Voltage	Breakdown Voltage Min@I _T	Breakdown Voltage Max@I _T	Test Current	Max Clamping Voltage V _C @I _{PP}	Peak Pulse Current	Reverse Leakage I _R @V _{RRM}
DIRECTIONAL		V _{RRM}	V _{BR}	V _{BR}	I _T	V _C	I _{PP}	I _R
UNI	BI	V	V	V	mA	V	A	uA
5KP5.0A	5KP5.0CA	5.00	6.40	7.00	50.0	9.2	543.48	5000
5KP6.0A	5KP6.0CA	6.00	6.67	7.37	50.0	10.3	485.44	5000
5KP6.5A	5KP6.5CA	6.50	7.22	7.98	50.0	11.2	446.43	2000
5KP7.0A	5KP7.0CA	7.00	7.78	8.60	50.0	12.0	416.67	1000
5KP7.5A	5KP7.5CA	7.50	8.33	9.21	5.0	12.9	387.60	250
5KP8.0A	5KP8.0CA	8.00	8.89	9.83	5.0	13.6	367.65	150
5KP8.5A	5KP8.5CA	8.50	9.44	10.40	5.0	14.4	347.22	50
5KP9.0A	5KP9.0CA	9.00	10.00	11.10	5.0	15.4	324.68	20
5KP10A	5KP10CA	10.00	11.10	12.30	5.0	17.0	294.12	15
5KP11A	5KP11CA	11.00	12.20	13.50	5.0	18.2	274.73	2
5KP12A	5KP12CA	12.00	13.30	14.70	5.0	19.9	251.26	2
5KP13A	5KP13CA	13.00	14.40	15.90	5.0	21.5	232.56	2
5KP14A	5KP14CA	14.00	15.60	17.20	5.0	23.2	215.52	2
5KP15A	5KP15CA	15.00	16.70	18.50	5.0	24.4	204.92	2
5KP16A	5KP16CA	16.00	17.80	19.70	5.0	26.0	192.31	2
5KP17A	5KP17CA	17.00	18.90	20.90	5.0	27.6	181.16	2
5KP18A	5KP18CA	18.00	20.00	22.10	5.0	29.2	171.23	2
5KP19A	5KP19CA	19.00	21.10	23.30	5.0	30.8	162.44	2
5KP20A	5KP20CA	20.00	22.20	24.50	5.0	32.4	154.32	2
5KP22A	5KP22CA	22.00	24.40	26.90	5.0	35.5	140.85	2
5KP24A	5KP24CA	24.00	26.70	29.50	5.0	38.9	128.53	2
5KP26A	5KP26CA	26.00	28.90	31.90	5.0	42.1	118.76	2
5KP28A	5KP28CA	28.00	31.10	34.40	5.0	45.4	110.13	2
5KP30A	5KP30CA	30.00	33.30	36.80	5.0	48.4	103.31	2
5KP33A	5KP33CA	33.00	36.70	40.60	5.0	53.3	93.81	2
5KP36A	5KP36CA	36.00	40.00	44.20	5.0	58.1	86.06	2
5KP40A	5KP40CA	40.00	44.40	49.10	5.0	64.5	77.52	2
5KP43A	5KP43CA	43.00	47.80	52.80	5.0	69.4	72.05	2
5KP45A	5KP45CA	45.00	50.00	55.30	5.0	72.7	68.78	2
5KP48A	5KP48CA	48.00	53.30	58.90	5.0	77.4	64.60	2
5KP51A	5KP51CA	51.00	56.70	62.70	5.0	82.4	60.68	2
5KP54A	5KP54CA	54.00	60.00	66.30	5.0	87.1	57.41	2
5KP58A	5KP58CA	58.00	64.40	71.20	5.0	93.6	53.42	2
5KP60A	5KP60CA	60.00	66.70	73.70	5.0	96.8	51.65	2
5KP64A	5KP64CA	64.00	71.10	78.60	5.0	103.0	48.54	2
5KP70A	5KP70CA	70.00	77.80	86.00	5.0	113.0	44.25	2
5KP75A	5KP75CA	75.00	83.30	92.10	5.0	121.0	41.32	2
5KP78A	5KP78CA	78.00	86.70	95.80	5.0	126.0	39.68	2
5KP80A	5KP80CA	80.00	88.80	97.60	5.0	129.6	38.58	2
5KP85A	5KP85CA	85.00	94.40	104.00	5.0	137.0	36.50	2
5KP90A	5KP90CA	90.00	100.00	111.00	5.0	146.0	34.25	2



Transient Voltage Suppressors(5000W)

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DIRECTIONAL		V _{RRM}	V _{BR}	V _{BR}	I _T	V _C	I _{PP}	I _R
UNI	BI	V	V	V	mA	V	A	uA
5KP100A	5KP100CA	100.00	111.00	123.00	5.0	162.0	30.86	2
5KP110A	5KP110CA	110.00	122.00	135.00	5.0	177.0	28.25	2
5KP120A	5KP120CA	120.00	133.00	147.00	5.0	193.0	25.91	2
5KP130A	5KP130CA	130.00	144.00	159.00	5.0	209.0	23.92	2
5KP140A	5KP140CA	140.00	155.00	171.00	5.0	226.8	22.05	2
5KP150A	5KP150CA	150.00	167.00	185.00	5.0	243.0	20.58	2
5KP160A	5KP160CA	160.00	178.00	197.00	5.0	259.0	19.31	2
5KP170A	5KP170CA	170.00	189.00	209.00	5.0	275.0	18.18	2
5KP180A	5KP180CA	180.00	200.00	220.00	5.0	291.6	17.15	2
5KP190A	5KP190CA	190.00	211.00	232.00	5.0	307.8	16.24	2

Note:

- 1.Suffix 'A' denotes 5% tolerance device.
- 2.For Bi-Directional devices having VR of 10volts and under,the IR limit is double.
- 3.Add suffix 'C' or 'CA' after part number to specify Bi-directional devices.

Transient Voltage Suppressors(5000W)

Fig. 1 - Pulse Derating Curve

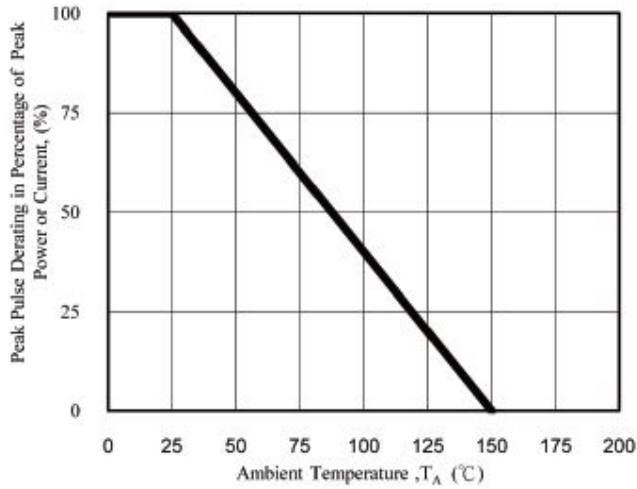


Fig. 2 - Maximum Non-Repetitive Surge Current

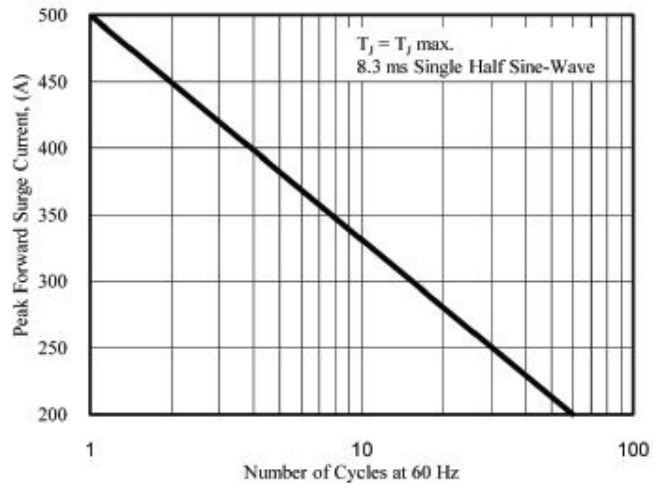


Fig. 3 - Steady State Power Derating Curve

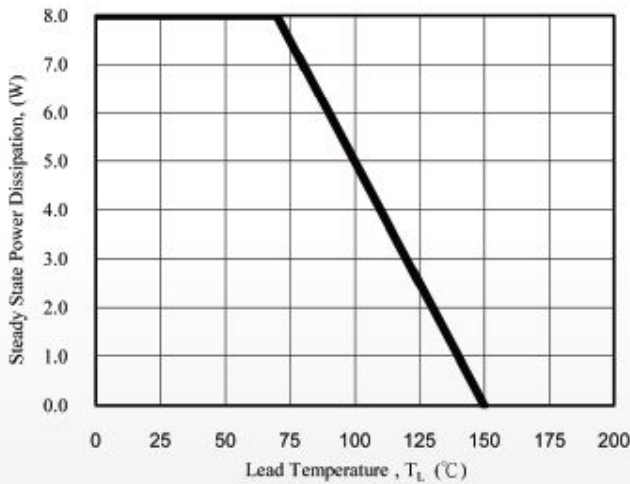


Fig. 4 - Peak Pulse Power Rating Curve

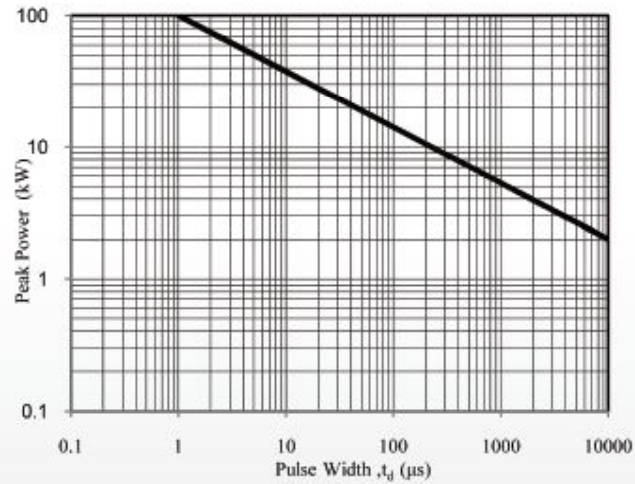


Fig. 5 - Pulse Waveform

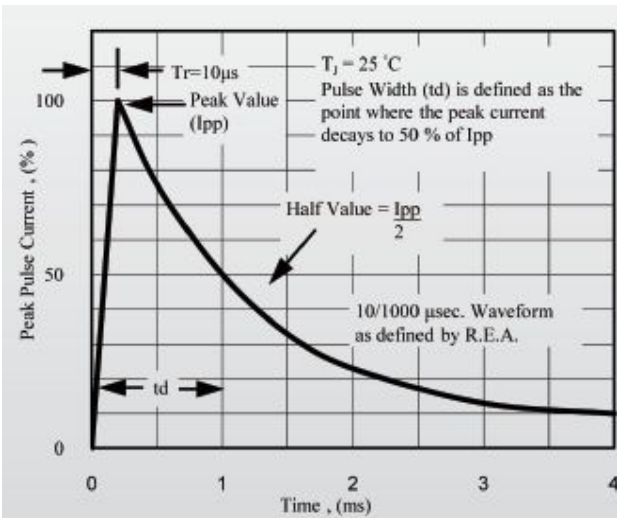


Fig. 6 - Typical junction Capacitance

