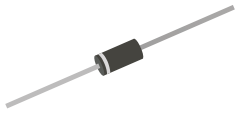
3000W Transient Voltage Suppressor

3KP-G Series

Stand-off Voltage: 5.0 ~ 440V
Power Dissipation: 3000 Watts
RoHS Device



Features

-Glass passivated chip.

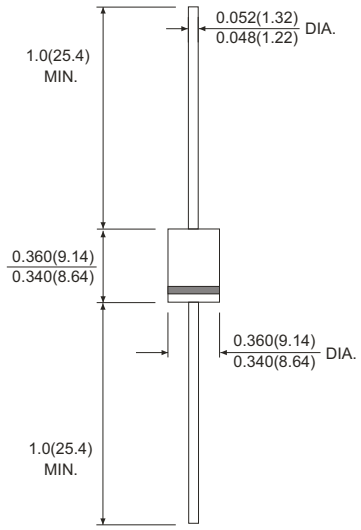
-Low leakage.

-Uni and Bidirection unit.

-Excellent clamping capability.

-Very Fast response time.

R-6



Dimensions in inches and (millimeter)

Mechanical Data

-Case: Molded plastic R-6

-Epoxy: UL 94V-0 rate flame retardant.

-Lead: Solderable per MIL-STD-202, method 208 guranteed.

-Polarity: Color band denotes cathode end except Bipolar.

-Weight: 2.1 grams

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive loaded.
For capacitive load, derated current by 20%.

Parameter	Symbol	Value	Unit
Peak power dissipation with a 10/1000 μs waveform (Note 1)	P_{PP}	3000	W
Peak pulse current wih a 10/1000 μs waveform (Note 1)	I_{PP}	See Next Table	A
Power dissipation on infinite heatsink at T_L=75°C	P_D	6.5	W
Peak forward surge current, 8.3mS single half sine-wave unidirectional only (Note 2)	I_{FSM}	300	A
Maximum instantaneous forward voltage at 100A for unidirectional only (Note 3)	V_F	3.5 / 5.0	V
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	°C

NTOES:
(1) Non-repetitive current pulse, per fig.3 and derated above T_A=25°C per Fig. 1.
(2) Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.
(3) V_F<3.5V for devices of V_{BR}<200V and V_F<5.0V for devices of V_{BR}>201V.

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RATING AND CHARACTERISTIC (3KP-G Series)

Fig.1 Pulse Derating Curve

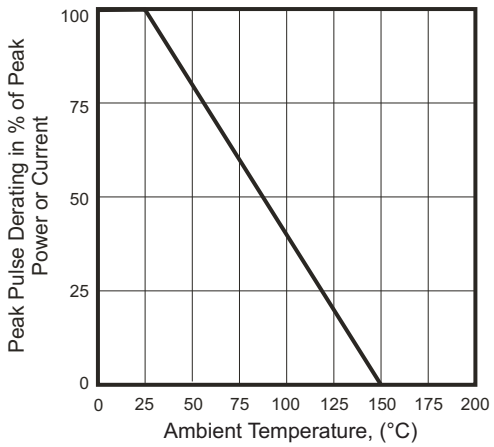


Fig.2 Max. Non-repetitive Surge Current

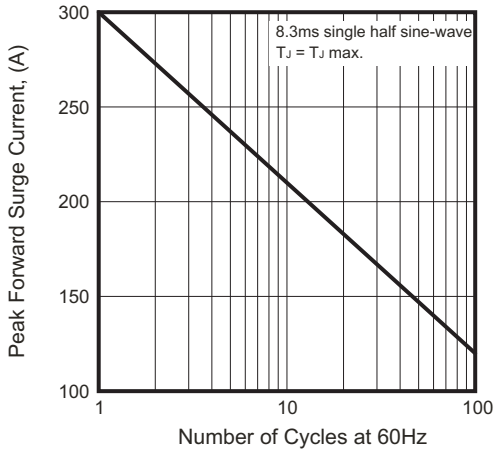


Fig.3 Peak Pulse Power Rating Curve

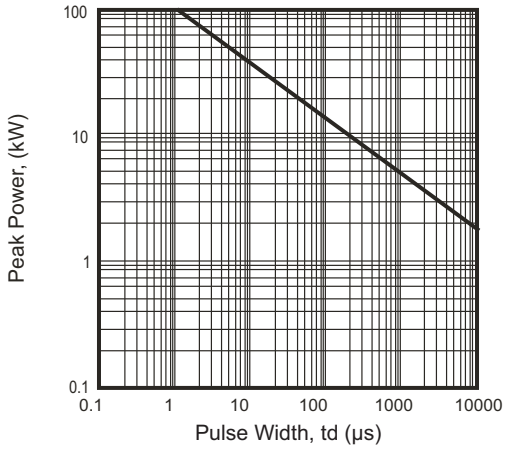


Fig.4 Steady State Power Derating Curve

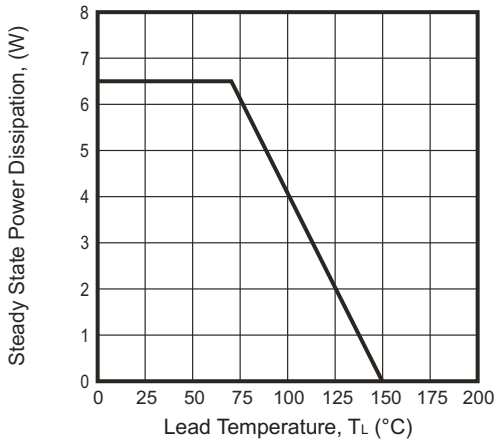
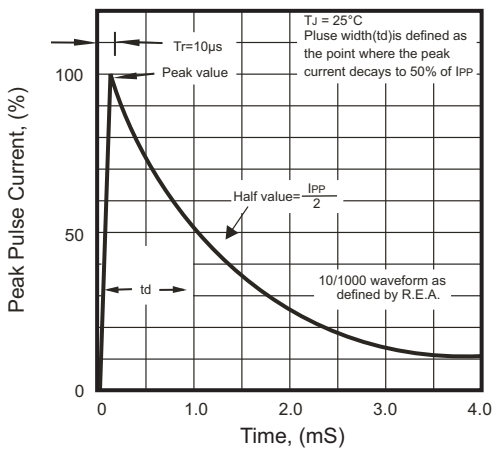


Fig.5 Pulse Waveforem



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Electrical Characteristics (T_A=25°C unless otherwise noted)

Part No.	Breakdown Voltage VBR (V) @ IT			Maximum Reverse Leakage at VRWM I_R (uA)	Working Peak Reverse Voltage V_{RWM} (V)	Maximum Reverse Surge Current I_{PP}(A)	Maximum Clamping Voltage at IPP Vc(V)	Marking Code	
	MIN.(V)	MAX.(V)	IT(mA)					UNI	BI
3KP5.0(C)A-G	6.40	7.00	50	5000	5.0	326.09	9.2	3KP5.0A	3KP5.0CA
3KP6.0(C)A-G	6.67	7.37	50	5000	6.0	291.26	10.3	3KP6.0A	3KP6.0CA
3KP6.5(C)A-G	7.22	7.98	50	2000	6.5	267.86	11.2	3KP6.5A	3KP6.5CA
3KP7.0(C)A-G	7.78	8.60	50	1000	7.0	250.00	12.0	3KP7.0A	3KP7.0CA
3KP7.5(C)A-G	8.33	9.21	5	250	7.5	232.56	12.9	3KP7.5A	3KP7.5CA
3KP8.0(C)A-G	8.89	9.83	5	150	8.0	220.59	13.6	3KP8.0A	3KP8.0CA
3KP8.5(C)A-G	9.44	10.4	5	50	8.5	208.33	14.4	3KP8.5A	3KP8.5CA
3KP9.0(C)A-G	10.0	11.1	5	20	9.0	194.81	15.4	3KP9.0A	3KP9.0CA
3KP10(C)A-G	11.1	12.3	5	15	10.0	176.47	17.0	3KP10A	3KP10CA
3KP11(C)A-G	12.2	13.5	5	2	11.0	164.84	18.2	3KP11A	3KP11CA
3KP12(C)A-G	13.3	14.7	5	2	12.0	150.75	19.9	3KP12A	3KP12CA
3KP13(C)A-G	14.4	15.9	5	2	13.0	139.53	21.5	3KP13A	3KP13CA
3KP14(C)A-G	15.6	17.2	5	2	14.0	129.31	23.2	3KP14A	3KP14CA
3KP15(C)A-G	16.7	18.5	5	2	15.0	122.95	24.4	3KP15A	3KP15CA
3KP16(C)A-G	17.8	19.7	5	2	16.0	115.38	26.0	3KP16A	3KP16CA
3KP17(C)A-G	18.9	20.9	5	2	17.0	108.70	27.6	3KP17A	3KP17CA
3KP18(C)A-G	20.0	22.1	5	2	18.0	102.74	29.2	3KP18A	3KP18CA
3KP19(C)A-G	21.1	23.3	5	2	19.0	97.47	30.8	3KP19A	3KP19CA
3KP20(C)A-G	22.2	24.5	5	2	20.0	92.59	32.4	3KP20A	3KP20CA
3KP22(C)A-G	24.4	26.9	5	2	22.0	84.51	35.5	3KP22A	3KP22CA
3KP24(C)A-G	26.7	29.5	5	2	24.0	77.12	38.9	3KP24A	3KP24CA
3KP26(C)A-G	28.9	31.9	5	2	26.0	71.26	42.1	3KP26A	3KP26CA
3KP28(C)A-G	31.1	34.4	5	2	28.0	66.08	45.4	3KP28A	3KP28CA
3KP30(C)A-G	33.3	36.8	5	2	30.0	61.98	48.4	3KP30A	3KP30CA
3KP33(C)A-G	36.7	40.6	5	2	33.0	56.29	53.3	3KP33A	3KP33CA
3KP36(C)A-G	40.0	44.2	5	2	36.0	51.64	58.1	3KP36A	3KP36CA
3KP40(C)A-G	44.4	49.1	5	2	40.0	46.51	64.5	3KP40A	3KP40CA
3KP43(C)A-G	43.0	47.8	5	2	43.0	43.23	69.4	3KP43A	3KP43CA
3KP45(C)A-G	50.0	55.3	5	2	45.0	41.27	72.7	3KP45A	3KP45CA
3KP48(C)A-G	53.3	58.9	5	2	48.0	38.76	77.4	3KP48A	3KP48CA
3KP51(C)A-G	56.7	62.7	5	2	51.0	36.41	82.4	3KP51A	3KP51CA
3KP54(C)A-G	60.0	66.3	5	2	54.0	34.44	87.1	3KP54A	3KP54CA

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Electrical Characteristics (T_A=25°C unless otherwise noted)

Part No.	Breakdown Voltage VBR (V) @ IT			Maximum Reverse Leakage at VRWM I_R (uA)	Working Peak Reverse Voltage V_{RWM} (V)	Maximum Reverse Surge Current I_{PP}(A)	Maximum Clamping Voltage at IPP Vc(V)	Marking Code	
	MIN.(V)	MAX.(V)	IT(mA)					UNI	BI
3KP58(C)A-G	64.4	71.2	5	2	58.0	32.05	93.6	3KP58A	3KP58CA
3KP60(C)A-G	66.7	73.7	5	2	60.0	30.99	96.8	3KP60A	3KP60CA
3KP64(C)A-G	71.1	78.6	5	2	64.0	29.13	103.0	3KP64A	3KP64CA
3KP70(C)A-G	77.8	86.0	5	2	70.0	26.55	113.0	3KP70A	3KP70CA
3KP75(C)A-G	83.3	92.1	5	2	75.0	24.79	121.0	3KP75A	3KP75CA
3KP78(C)A-G	86.7	95.8	5	2	78.0	23.81	126.0	3KP78A	3KP78CA
3KP80(C)A-G	88.8	97.6	5	2	80.0	23.15	137.0	3KP80A	3KP80CA
3KP85(C)A-G	94.4	104.0	5	2	85.0	21.9	137.0	3KP85A	3KP85CA
3KP90(C)A-G	100	111	5	2	90	20.55	146	3KP90A	3KP90CA
3KP100(C)A-G	111	123	5	2	100	18.52	162	3KP100A	3KP100CA
3KP110(C)A-G	122	135	5	2	110	16.95	177	3KP110A	3KP110CA
3KP120(C)A-G	133	147	5	2	120	15.54	193	3KP120A	3KP120CA
3KP130(C)A-G	144	159	5	2	130	14.35	209	3KP130A	3KP130CA
3KP140(C)A-G	155	171	5	2	140	13.23	227	3KP140A	3KP140CA
3KP150(C)A-G	167	185	5	2	150	12.35	243	3KP150A	3KP150CA
3KP160(C)A-G	178	197	5	2	160	11.58	259	3KP160A	3KP160CA
3KP170(C)A-G	189	209	5	2	170	10.91	275	3KP170A	3KP170CA
3KP180(C)A-G	200	220	5	2	180	10.29	292	3KP180A	3KP180CA
3KP190(C)A-G	211	232	5	2	190	9.75	308	3KP190A	3KP190CA
3KP200(C)A-G	224	247	5	2	200	9.26	324	3KP200A	3KP200CA
3KP210(C)A-G	233	258	5	2	210	8.58	350	3KP210A	3KP210CA
3KP220(C)A-G	246	272	5	2	220	8.43	356	3KP220A	3KP220CA
3KP250(C)A-G	279	309	5	2	250	7.41	405	3KP250A	3KP250CA
3KP300(C)A-G	335	371	5	2	300	6.17	486	3KP300A	3KP300CA
3KP350(C)A-G	391	432	5	2	350	5.29	567	3KP350A	3KP350CA
3KP400(C)A-G	447	494	5	2	400	4.63	648	3KP400A	3KP400CA
3KP440(C)A-G	492	543	5	2	440	4.21	713	3KP440A	3KP440CA

NOTES:

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

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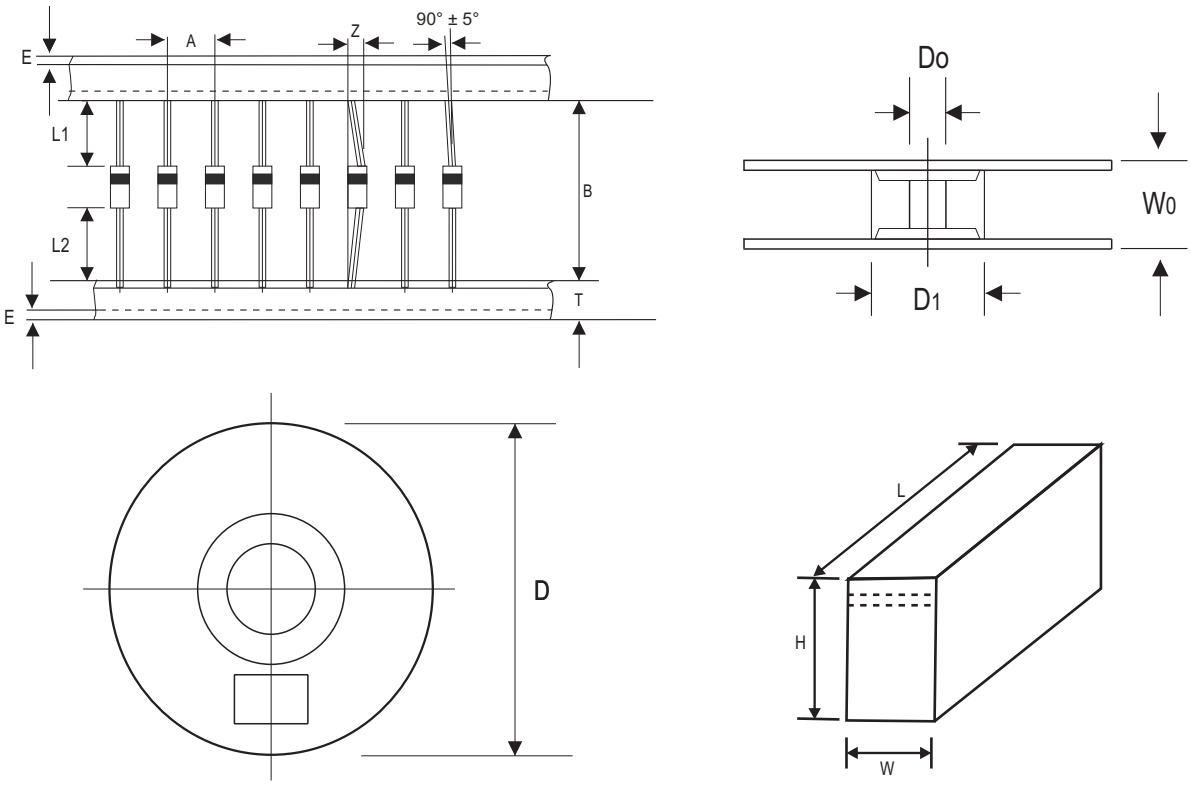
Taping Specification For Axial Lead Diodes



	SYMBOL	A	B	Z	T	E	L1	L2
R-6	(mm)	10.00 ± 0.50	52.00 ± 0.50	1.20 (max)	6.00 ± 0.40	1.00 (max)	1.00 (max)	1.00 (max)
	(inch)	0.394 ± 0.020	2.047 ± 0.020	0.047 (max)	0.236 ± 0.016	0.039 (max)	0.039 (max)	0.039 (max)

	SYMBOL	D_1	D_0	D	W_0	L	W	H
R-6	(mm)	85.70 ± 0.30	16.60 ± 0.40	330.00	72.00 ± 3.00	260.00	75.00	145.00
	(inch)	3.374 ± 0.012	0.654 ± 0.016	13.000	2.835 ± 0.118	10.236	2.953	5.709

Standard Packaging

Case Type	AMMO PACK	
	BOX (pcs)	CARTON (pcs)
R-6	250	3,750

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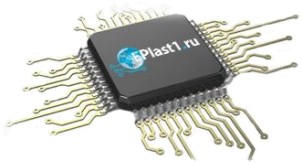
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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