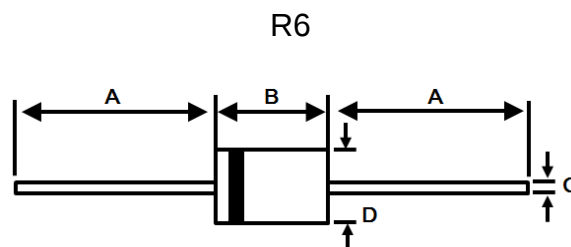


**GLASS PASSIVATED
UNIDIRECTIONAL AND BIDIRECTIONAL
TRANSIENT VOLTAGE SUPPRESSORS**
**REVERSE VOLTAGE - 5.0 to 220 Volts
POWER DISSIPATION - 3000 Watts**
FEATURES

- Glass passivated chip
- Low leakage
- Uni and bidirectional unit
- Excellent clamping capability
- The plastic material has U/L recognition 94V-0
- Fast response time

MECHANICAL DATA

- Case : Molded plastic
- Polarity : Unidirectional – type number and cathode band
bidirectional – type number only
- Wight : 0.07 ounces, 2.1 grams



R-6		
DIM.	MIN.	MAX
A	25.4	-
B	8.60	9.10
C	1.22Ø	1.32Ø
D	8.60Ø	9.10Ø
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz resistive or inductive load.

For capacitive load, derate current by 20%

ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Peak power dissipation at $T_J = 25^\circ\text{C}$, $t_p = 1\text{ms}$ (Note 1)	P_{PK}	3000	W
Peak forward surge current 8.3ms single half sine-wave at $T_J = 25^\circ\text{C}$ (Note 2)	I_{FSM}	300	A
Steady state power dissipation at $T_L = 120^\circ\text{C}$ lead lengths 0.375"(9.5mm), see fig. 6	$P_{M(AV)}$	3.5	W
Operating temperature range	T_J	-55 to +175	°C
Storage temperature range	T_{STG}	-55 to +175	°C

REV.6, ARP.-2020, KDIG02

Notes:

1. Non-repetitive current pulse, per fig. 3 and derated above $T_J = 25^\circ\text{C}$ per Fig.1.
2. Only for uni-directional units

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RATING AND CHARACTERISTIC CURVES 3KP SERIES

LITEON

FIG.1- Pulse Derating Curve

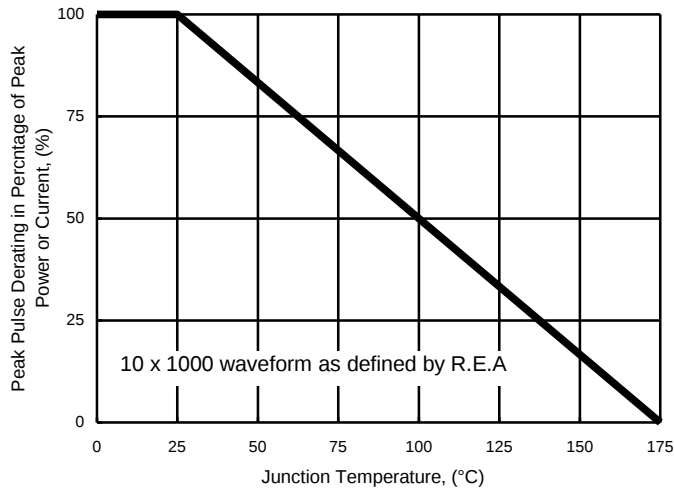


FIG.2- Maximum Non-Repetitive Surge Current

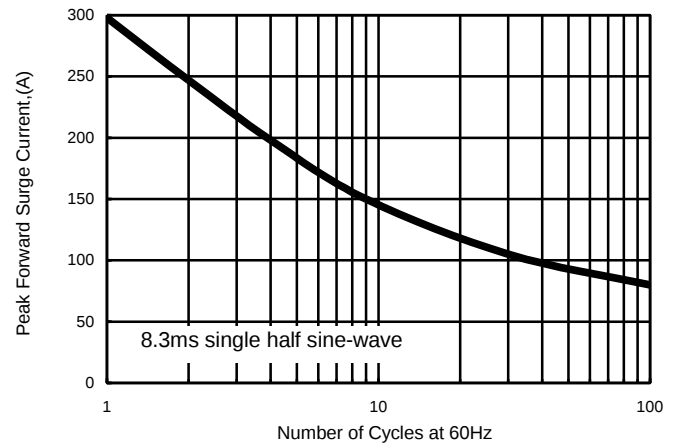


FIG.3- Pulse Waveform

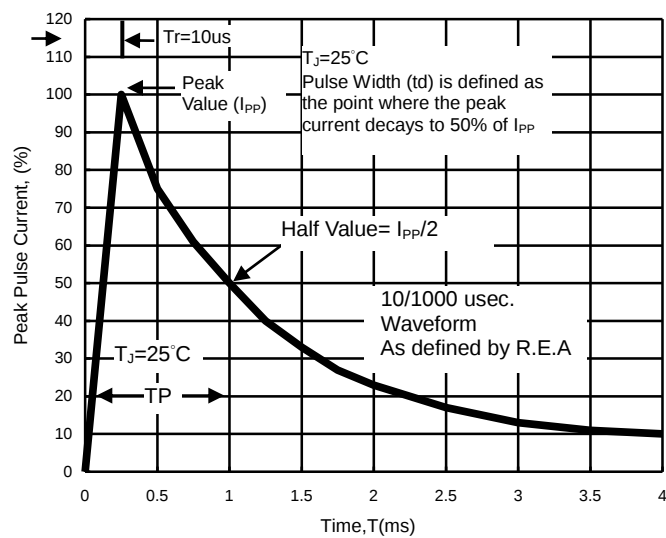


FIG.4- Typical Junction Capacitance

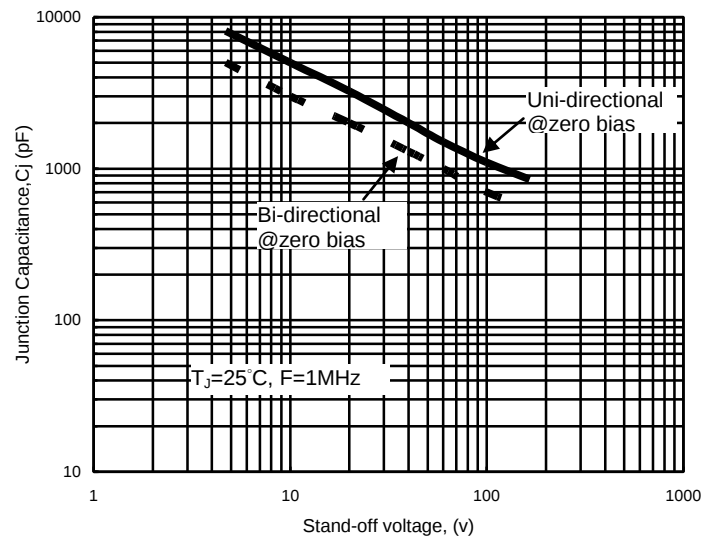


FIG.5- Peak Pulse Power Rating Curve

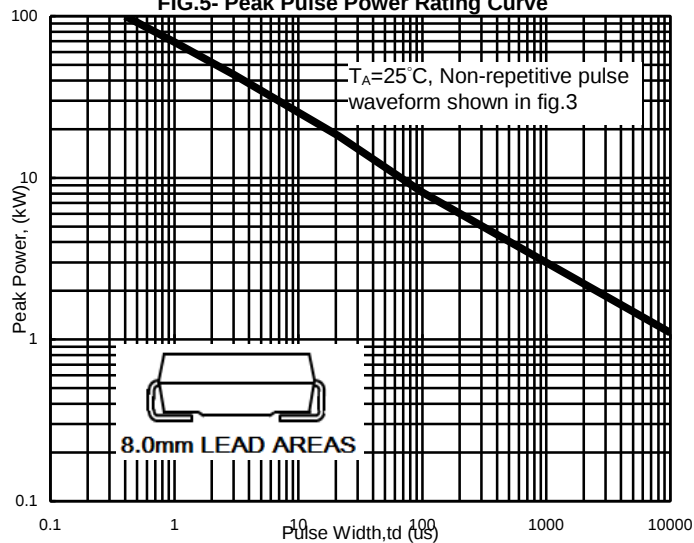
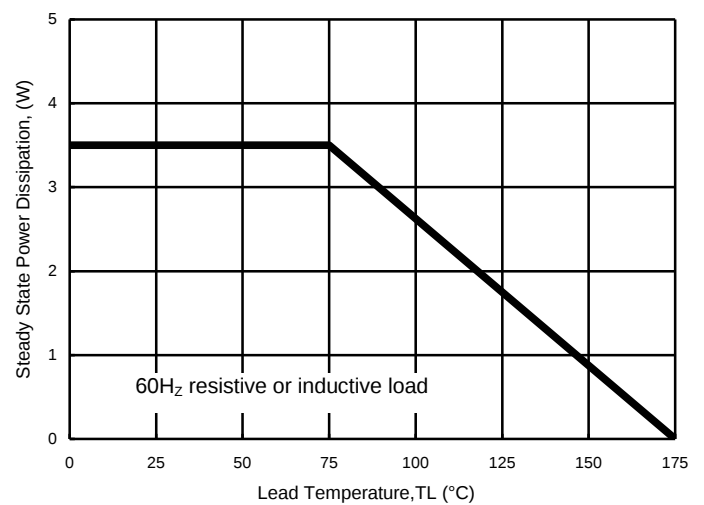


FIG.6- Steady State Power Derating Curve



3KP SERIES



Device		Reverse standoff voltage	Break down voltage BR volts			Max. reverse leakage at V_R	Max. clamping voltage at I_{PP}	Max. peak pulse current
Uni	Bi	$V_R(V)$	Min.	Max	@IT(mA)	$I_R(\mu A)$	$V_C(V)$	$I_{PP}(A)$
3KP5.0	3KP5.0C	5	6.40	7.82	10	1000.0	9.6	312.5
3KP5.0A	3KP5.0CA	5	6.40	7.07	10	1000.0	9.2	326.1
3KP6.0	3KP6.0C	6	6.67	8.15	10	1000.0	11.4	263.2
3KP6.0A	3KP6.0CA	6	6.67	7.37	10	1000.0	10.3	291.3
3KP6.5	3KP6.5C	6.5	7.22	8.82	10	500.0	12.3	243.9
3KP6.5A	3KP6.5CA	6.5	7.22	7.98	10	500.0	11.2	267.9
3KP7.0	3KP7.0C	7	7.78	9.51	10	200.0	13.3	225.6
3KP7.0A	3KP7.0CA	7	7.78	8.60	10	200.0	12.0	250.0
3KP7.5	3KP7.5C	7.5	8.33	10.18	1	100.0	14.3	209.8
3KP7.5A	3KP7.5CA	7.5	8.33	9.21	1	100.	12.9	232.6
3KP8.0	3KP8.0C	8	8.89	10.86	1	50.0	15.0	200.0
3KP8.0A	3KP8.0CA	8	8.89	9.83	1	50.0	13.6	220.6
3KP8.5	3KP8.5C	8.5	9.44	11.54	1	25.0	15.9	188.7
3KP8.5A	3KP8.5CA	8.5	9.44	10.43	1	25.0	14.4	208.3
3KP9.0	3KP9.0C	9	10.00	12.22	1	10.0	16.9	177.5
3KP9.0A	3KP9.0CA	9	10.00	11.05	1	10.0	15.4	194.8
3KP10	3KP10C	10	11.10	13.56	1	2.0	18.8	159.6
3KP10A	3KP10CA	10	11.10	12.27	1	2.0	17.0	176.5
3KP11	3KP11C	11	12.20	14.9	1	2.0	20.1	149.3
3KP11A	3KP11CA	11	12.20	13.5	1	2.0	18.2	164.8
3KP12	3KP12C	12	13.30	16.3	1	2.0	22.0	136.4
3KP12A	3KP12CA	12	13.30	14.7	1	2.0	19.9	150.8
3KP13	3KP13C	13	14.40	17.6	1	2.0	23.8	126.1
3KP13A	3KP13CA	13	14.40	15.9	1	2.0	21.5	139.5
3KP14	3KP14C	14	15.60	19.1	1	2.0	25.8	116.3
3KP14A	3KP14CA	14	15.60	17.2	1	2.0	23.2	129.3
3KP15	3KP15C	15	16.70	20.4	1	2.0	26.9	111.5
3KP15A	3KP15CA	15	16.70	18.5	1	2.0	24.2	124.0
3KP16	3KP16C	16	17.80	21.8	1	2.0	28.8	104.2
3KP16A	3KP16CA	16	17.80	19.7	1	2.0	26.0	115.4
3KP17	3KP17C	17	18.90	23.1	1	2.0	30.5	98.4
3KP17A	3KP17CA	17	18.90	20.9	1	2.0	27.6	108.7
3KP18	3KP18C	18	20.00	24.4	1	2.0	32.2	93.2
3KP18A	3KP18CA	18	20.00	22.1	1	2.0	29.2	102.7
3KP20	3KP20C	20	22.20	27.1	1	2.0	35.8	83.8
3KP20A	3KP20CA	20	22.20	24.5	1	2.0	32.4	92.6
3KP22	3KP22C	22	24.40	29.8	1	2.0	39.4	76.1
3KP22A	3KP22CA	22	24.40	27.0	1	2.0	35.5	84.5

3KP SERIES

Device		Reverse standoff voltage	Break down voltage BR volts			Max. reverse leakage at V_R	Max. Clamping voltage at I_{PP}	Max. peak pulse current
Uni	Bi	V_{RWM} (Volts)	Min.	Max	@IT(mA)	I_{RSM} (Amps)	V_{RSM} (Volts)	I_R (uA)
3KP24	3KP24C	24	26.70	32.6	1	2.0	43.0	69.8
3KP24A	3KP24CA	24	26.70	29.5	1	2.0	38.9	77.1
3KP26	3KP26C	26	28.9	35.3	1	2.0	46.6	64.4
3KP26A	3KP26CA	26	28.9	31.9	1	2.0	42.1	71.3
3KP28	3KP28C	28	31.1	38.0	1	2.0	50.0	60.0
3KP28A	3KP28CA	29	31.1	34.4	1	2.0	45.4	66.1
3KP30	3KP30C	30	33.3	40.7	1	2.0	53.5	56.1
3KP30A	3KP30CA	30	33.3	36.8	1	2.0	48.4	62.0
3KP33	3KP33C	33	36.7	44.8	1	2.0	59.0	50.8
3KP33A	3KP33CA	33	36.7	40.6	1	2.0	53.3	56.3
3KP36	3KP36C	36	40	48.9	1	2.0	64.3	46.7
3KP36A	3KP36CA	36	40	44.2	1	2.0	58.1	51.6
3KP40	3KP40C	40	44.4	54.3	1	2.0	71.4	42.0
3KP40A	3KP40CA	40	44.4	49.1	1	2.0	64.5	46.5
3KP43	3KP43C	43	47.8	58.4	1	2.0	76.7	39.1
3KP43A	3KP43CA	43	47.8	52.8	1	2.0	69.4	43.2
3KP45	3KP45C	45	50	61.1	1	2.0	80.3	37.4
3KP45A	3KP45CA	45	50	55.3	1	2.0	72.7	41.3
3KP48	3KP48C	48	53.3	65.1	1	2.0	85.5	35.1
3KP48A	3KP48CA	48	53.3	58.9	1	2.0	77.4	38.8
3KP51	3KP51C	51	56.7	69.3	1	2.0	91.1	32.9
3KP51A	3KP51CA	51	56.7	62.7	1	2.0	82.4	36.4
3KP54	3KP54C	54	60	73.3	1	2.0	96.3	31.2
3KP54A	3KP54CA	54	60	66.3	1	2.0	87.1	34.4
3KP58	3KP58C	58	64.4	78.7	1	2.0	103.0	29.1
3KP58A	3KP58CA	58	64.4	71.2	1	2.0	93.6	32.1
3KP60	3KP60C	60	66.7	81.5	1	2.0	107.0	28.0
3KP60A	3KP60CA	60	66.7	73.7	1	2.0	96.8	31.0
3KP64	3KP64C	64	71.1	86.9	1	2.0	114.0	26.3
3KP64A	3KP64CA	64	71.1	78.6	1	2.0	103.0	29.1
3KP70	3KP70C	70	77.8	95.1	1	2.0	125.0	24.0
3KP70A	3KP70CA	70	77.8	86.0	1	2.0	113.0	26.5
3KP75	3KP75C	75	83.3	101.8	1	2.0	134.0	22.4
3KP75A	3KP75CA	75	83.3	92.1	1	2.0	121.0	24.8
3KP78	3KP78C	78	86.7	105.9	1	2.0	139.0	21.6
3KP78A	3KP78CA	78	86.7	95.8	1	2.0	126.0	23.8
3KP85	3KP85C	85	94.4	115.4	1	2.0	151.0	19.9
3KP85A	3KP85CA	85	94.4	104.3	1	2.0	137.0	21.9

3KP SERIES

Device		Reverse standoff voltage	Break down voltage BR volts			Max. reverse leakage at V_R	Max. clamping voltage at I_{PP}	Max. peak pulse current
Uni	Bi	V_{RWM} (Volts)	Min.	Max	@ I_T (mA)	I_{RSM} (Amps)	V_{RSM} (Volts)	I_R (μ A)
3KP90	3KP90C	90	100	122.2	1	2.0	160.0	18.8
3KP90A	3KP90CA	90	100	110.5	1	2.0	146.0	20.5
3KP100	3KP100C	100	111	135.6	1	2.0	179.0	16.8
3KP100A	3KP100CA	100	111	122.7	1	2.0	162.0	18.5
3KP110	3KP110C	110	122.0	149.1	1	2.0	196.0	15.3
3KP110A	3KP110CA	110	122.0	134.8	1	2.0	177.0	16.9
3KP120	3KP120C	120	133.0	162.5	1	2.0	214.0	14
3KP120A	3KP120CA	120	133.0	147.0	1	2.0	193.0	15.5
3KP130	3KP130C	130	144.0	176.0	1	2.0	231.0	13.0
3KP130A	3KP130CA	130	144.0	159.2	1	2.0	209.0	14.4
3KP150	3KP150C	150	167.0	204.1	1	2.0	268.0	11.2
3KP150A	3KP150CA	150	167.0	184.6	1	2.0	243.0	12.3
3KP160	3KP160C	160	178.0	217.5	1	2.0	287.0	10.5
3KP160A	3KP160CA	160	178.0	196.7	1	2.0	259.0	11.6
3KP170	3KP170C	170	189.0	231.0	1	2.0	304.0	9.9
3KP170A	3KP170CA	170	189.0	208.9	1	2.0	275.0	10.9
3KP180	3KP180C	180	198.0	242.0	1	2.0	322.0	9.3
3KP180A	3KP180CA	180	198.0	218.8	1	2.0	292.0	10.3
3KP190	3KP190C	190	209.0	255.4	1	2.0	340.0	8.8
3KP190A	3KP190CA	190	209.0	231.0	1	2.0	308.0	9.7
3KP200	3KP200C	200	220.0	268.8	1	2.0	358.0	8.4
3KP200A	3KP200CA	200	220.0	243.2	1	2.0	324.0	9.3
3KP210	3KP210C	210	231.0	282.3	1	2.0	376.0	8.0
3KP210A	3KP210CA	210	231.0	255.3	1	2.0	340.0	8.8
3KP220	3KP220C	220	242.0	295.7	1	2.0	394.0	7.6
3KP220A	3KP220CA	220	242.0	267.5	1	2.0	356.0	8.4

Notes:

1. Suffix 'C' denotes bidirectional device.
2. Suffix 'A' denotes 5% tolerance device, no suffix denotes 10% tolerance device.
3. For bidirectional devices having VR of 10 volts and under, the IR limit is doubled.

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