LITE-ON SEMICONDUCTOR

15KP SERIES

GLASS PASSIVATED UNIDIRECTIONAL AND BIDIRECTIONAL TRANSIENT VOLTAGE SUPPRESSORS

REVERSE VOLTAGE - 17 to 200 Volts
POWER DISSIPATION - 15000 Watts

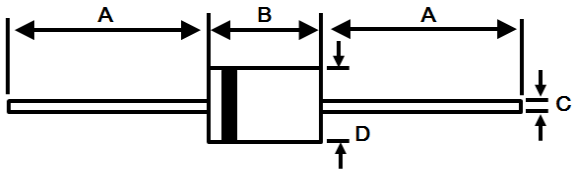
FEATURES

- Glass passivated chip
- Low leakage
- Uni and bidirectional unit
- Excellent clamping capability
- The plastic material has U/L recognition 94V-0
- Fast response time
- IEC61000-4-2, >±30KV(air); >±30KV(contact);

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



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

ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Peak power dissipation at T_A = 25°C , tp = 1ms (Note1)	P_{PK}	15000	W
Peak forward surge current 8.3ms single half sine-wave at T_J = 25°C (Note,2)	I_{FSM}	400	A
Steady state power dissipation at T_L = 120°C lead lengths 0.375”(9.5mm), see fig. 4	$P_{M(AV)}$	3.5	W
Operating temperature range	T_J	-55 to +175	°C
Storage temperature range	T_{STG}	-55 to +175	°C

REV.11, ARP.-2020, KDIG03

Notes:

1. Non-repetitive current pulse, per fig. 5 and derated above T_A = 25°C per fig.1.
2. 8.3ms single half sine-wave duty cycle= 4 pulses per minutes maximum (uni-directional units only)

RATING AND CHARACTERISTIC CURVES
15KP SERIES

FIG.1- Pulse Derating Curve

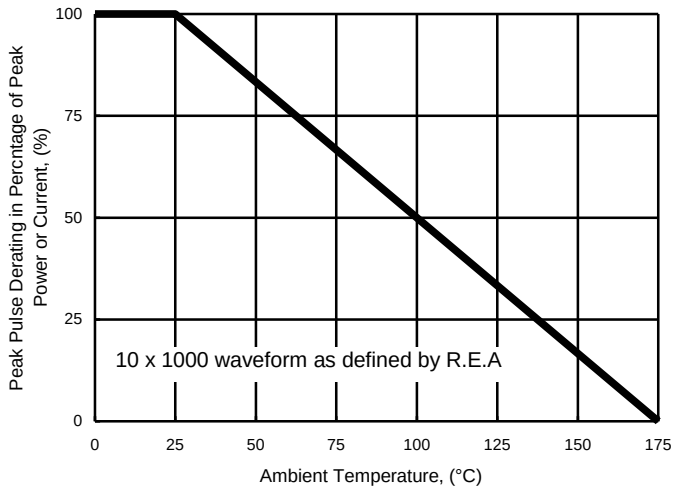


FIG.2- Typical Junction Capacitance

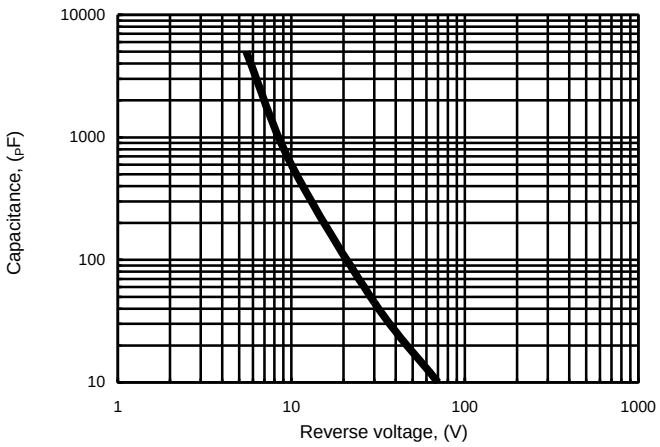


FIG.3- Peak Pulse Power Rating Curve

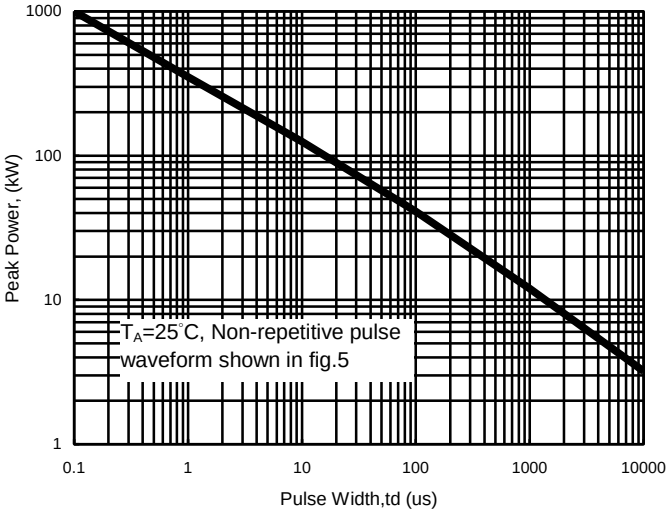


FIG.4- Steady State Power Derating Curve

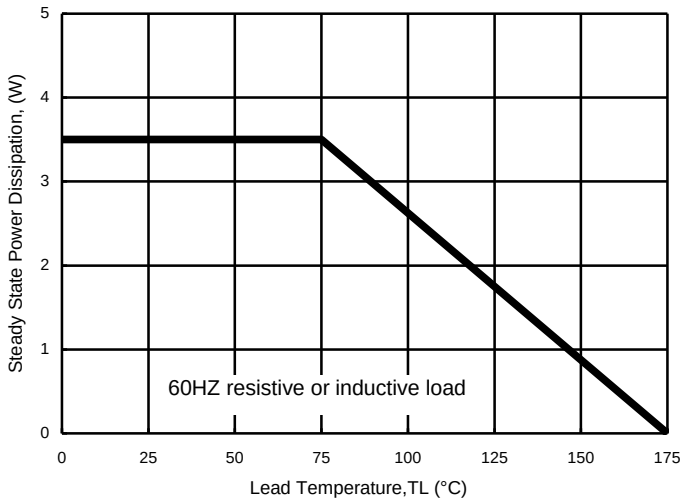
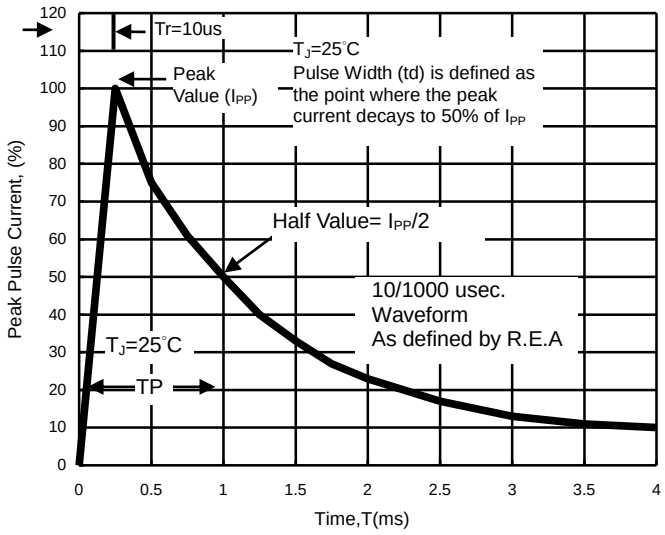


FIG.5- Pulse Waveform



15KP SERIES

Device		Reverse standoff Voltage	Breakdown voltage BV 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(uA)	V_C(V)	I_{PP}(A)
15KP17A	15KP17CA	17.0	18.9	20.9	50	5000	29.3	511.9
15KP18A	15KP18CA	18.0	20.0	22.1	50	5000	30.9	485.4
15KP20A	15KP20CA	20.0	22.2	24.5	20	1500	34.3	437.3
15KP22A	15KP22CA	22.0	24.4	27.0	10	500	37.1	404.3
15KP24A	15KP24CA	24.0	26.7	29.5	5	150	40.5	370.4
15KP26A	15KP26CA	26.0	28.9	31.9	5	50	44.0	340.9
15KP28A	15KP28CA	28.0	31.1	34.4	5	25	47.5	315.8
15KP30	15KP30C	30.0	33.3	40.7	5	15	56.2	266.9
15KP30A	15KP30CA	30.0	33.3	36.8	5	15	50.7	295.9
15KP33	15KP33C	33.0	36.7	44.8	5	10	60.6	247.5
15KP33A	15KP33CA	33.0	36.7	40.6	5	10	54.8	273.7
15KP36	15KP36C	36.0	40.0	48.9	5	10	66.0	227.3
15KP36A	15KP36CA	36.0	40.0	44.2	5	10	59.7	251.3
15KP40	15KP40C	40.0	44.4	54.3	5	10	72.8	206.0
15KP40A	15KP40CA	40.0	44.4	49.1	5	10	65.8	228.0
15KP43	15KP43C	43.0	47.8	58.4	5	10	77.1	194.6
15KP43A	15KP43CA	43.0	47.8	52.8	5	10	69.7	215.2
15KP45	15KP45C	45.0	50.0	61.1	5	10	80.7	185.9
15KP45A	15KP45CA	45.0	50.0	55.3	5	10	73.0	205.5
15KP48	15KP48C	48.0	53.3	65.1	5	10	85.9	174.6
15KP48A	15KP48CA	48.0	53.3	58.9	5	10	77.7	193.1
15KP51	15KP51C	51.0	56.7	69.3	5	10	91.5	163.9
15KP51A	15KP51CA	51.0	56.7	62.7	5	10	82.8	181.2
15KP54	15KP54C	54.0	60.0	73.3	5	10	96.8	155.0
15KP54A	15KP54CA	54.0	60.0	66.3	5	10	87.5	171.4
15KP58	15KP58C	58.0	64.4	78.7	5	10	104.0	144.2
15KP58A	15KP58CA	58.0	64.4	71.2	5	10	940	159.6

15KP SERIES

Device		Reverse standoff Voltage	Breakdown voltage BV 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(uA)	V_C(V)	I_{PP}(A)
15KP60	15KP60C	60.0	66.7	81.5	5	10	107.0	140.2
15KP60A	15KP60CA	60.0	66.7	73.7	5	10	97.3	154.2
15KP64	15KP64C	64.0	71.1	86.9	5	10	115.0	130.4
15KP64A	15KP64CA	64.0	71.1	78.6	5	10	104.0	144.2
15KP70	15KP70C	70.0	77.8	95.1	5	10	126.0	119.0
15KP70A	15KP70CA	70.0	77.8	86.0	5	10	114.0	131.6
15KP75	15KP75C	75.0	83.3	101.8	5	10	135.0	111.1
15KP75A	15KP75CA	75.0	83.3	92.1	5	10	122.0	123.0
15KP78	15KP78C	78.0	86.7	105.9	5	10	140.0	107.1
15KP78A	15KP78CA	78.0	86.7	95.8	5	10	126.0	119.0
15KP85	15KP85C	85.0	94.4	115.4	5	10	152.0	98.7
15KP85A	15KP85CA	850	94.4	104.3	5	10	137.0	109.5
15KP90	15KP90C	90.0	100.0	122.2	5	10	160.0	93.8
15KP90A	15KP90CA	90.0	100.0	110.5	5	10	146.0	102.7
15KP100	15KP100C	100.0	111.0	135.6	5	10	179.0	83.8
15KP110	15KP110C	110.0	122.0	149.1	5	10	196.0	76.5
15KP120	15KP120C	120.0	133.0	162.5	5	10	214.0	70.1
15KP130	15KP130C	130.0	144.0	176.0	5	10	231.0	64.9
15KP150	15KP150C	150.0	167.0	204.1	5	10	268.0	56.0
15KP160	*15KP160C	160.0	178.0	217.5	5	10	287.0	52.3
15KP170	*15KP170C	170.0	189.0	231.0	5	10	304.0	49.3
15KP180	*15KP180C	180.0	200.0	244.4	5	10	321.0	46.7
15KP200	*15KP200C	200.0	222.0	271.3	5	10	356.0	42.1

Notes:

1. Suffix 'C ' denotes bidirectional device.
2. Suffix 'A ' denotes 5% tolerance device, no suffix denotes 10% tolerance device.
3. *Mark " * " denote under development device

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