R-6 Plastic-Encapsulate Diodes

15KP SERIES Transient Voltage Suppressor Diodes

Features

- P_{PP} 15000W
- V_{RWM} 17V- 280V
- Glass passivated chip

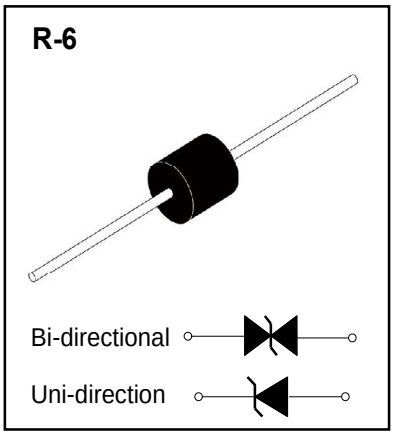
Applications

- Clamping Voltage

Marking

- 15KP XXA/CA

XX：From 17 To 280



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	Max
Peak pulse power dissipation	P_{PPM}	W	with a 10/1000us waveform	15000
Peak pulse current (1)	I_{PPM}	A	with a 10/1000us waveform	See Next Table
Power dissipation	P_D	W	On infinite heat sink at T_L=75℃	8.0
Peak forward surge current(2)	I_{FSM}	A	8.3 ms single half sine-wave unidirectional only	500
Operation Junction and Storage Temperature Range	T_J,T_{STG}	℃		-55 ~ +150

Electrical Characteristics（T_a=25℃ Unless otherwise specified）

Item	Symbol	Unit	Conditions	Max
Maximum instantaneous forward Voltage (3)	V_F	V	at 25A for unidirectional only	3.5/5.0

Notes:

(1) VF<3.5V for VBR<200V and VF<6.5V for VBR>201V

Electrical Characteristics (T_A=25℃ unless otherwise noted)

Type Number		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I_T	Breakdown Voltage Max. @ I_T	Test Current	Maximum Clamping Voltage @I_{PP}	Peak Pulse Current	Reverse Leakage @V_{RMW}
(Uni)	(Bi)	V_{RMW}(V)	$V_{BR\ MIN}$(V)	$V_{BR\ MAX}$(V)	I_T (mA)	V_C(V)	I_{PP}(A)	I_R(uA)
15KP17A	15KP17CA	17	18.99	20.79	50	29.3	515.4	5000
15KP18A	15KP18CA	18	20.11	22.01	50	30.9	488.7	5000
15KP20A	15KP20CA	20	22.34	24.46	20	34.3	440.2	1500
15KP22A	15KP22CA	22	24.57	26.91	10	37.1	407.0	500
15KP24A	15KP24CA	24	26.81	29.35	5	40.7	371.0	150
15KP26A	15KP26CA	26	29.04	31.80	5	44.0	343.2	50
15KP28A	15KP28CA	28	31.28	34.24	5	47.5	317.9	25
15KP30A	15KP30CA	30	33.51	36.70	5	50.7	297.8	15
15KP33A	15KP33CA	33	36.90	40.40	5	54.7	276.1	2
15KP36A	15KP36CA	36	40.20	44.00	5	59.8	252.5	2
15KP40A	15KP40CA	40	44.70	48.90	5	65.8	229.5	2
15KP43A	15KP43CA	43	48.00	52.60	5	69.8	216.3	2
15KP45A	15KP45CA	45	50.30	55.00	5	72.8	207.4	2
15KP48A	15KP48CA	48	53.60	58.70	5	77.7	194.3	2
15KP51A	15KP51CA	51	57.00	62.40	5	82.9	182.1	2
15KP54A	15KP54CA	54	60.30	66.00	5	87.7	172.2	2
15KP58A	15KP58CA	58	64.80	70.90	5	93.8	161.0	2
15KP60A	15KP60CA	60	67.00	73.40	5	97.4	155.0	2
15KP64A	15KP64CA	64	71.50	78.30	5	104.2	144.9	2
15KP70A	15KP70CA	70	78.20	85.60	5	113.6	132.9	2
15KP75A	15KP75CA	75	83.80	91.70	5	122.0	123.8	2
15KP78A	15KP78CA	78	87.10	95.40	5	126.1	119.7	2
15KP85A	15KP85CA	85	94.90	104.00	5	137.6	109.7	2
15KP90A	15KP90CA	90	100.50	110.10	5	145.6	103.7	2
15KP100A	15KP100CA	100	111.70	122.30	5	161.3	93.6	2
15KP110A	15KP110CA	110	122.90	134.50	5	178.6	84.5	2
15KP120A	15KP120CA	120	134.00	146.80	5	192.3	78.5	2
15KP130A	15KP130CA	130	145.20	159.00	5	208.3	72.5	2
15KP150A	15KP150CA	150	167.60	183.50	5	241.9	62.4	2
15KP160A	15KP160CA	160	178.70	195.70	5	258.6	58.4	2
15KP170A	15KP170CA	170	189.90	207.90	5	272.7	55.4	2
15KP180A	15KP180CA	180	201.10	220.10	5	288.5	52.3	2
15KP200A	15KP200CA	200	223.40	244.60	5	319.1	47.3	2
15KP220A	15KP220CA	220	245.70	269.10	5	356.0	42.4	2
15KP240A	15KP240CA	240	268.10	293.50	5	384.6	39.3	2
15KP260A	15KP260CA	260	290.40	318.00	5	416.7	36.2	2
15KP280A	15KP280CA	280	312.80	342.40	5	454.5	33.2	2

※ For Bi-directional type having V_{RWM} of 30 Volts and less, the I_R limit is double.

Typical Characteristics

FIG1:Peak Pulse Power Rating Curve

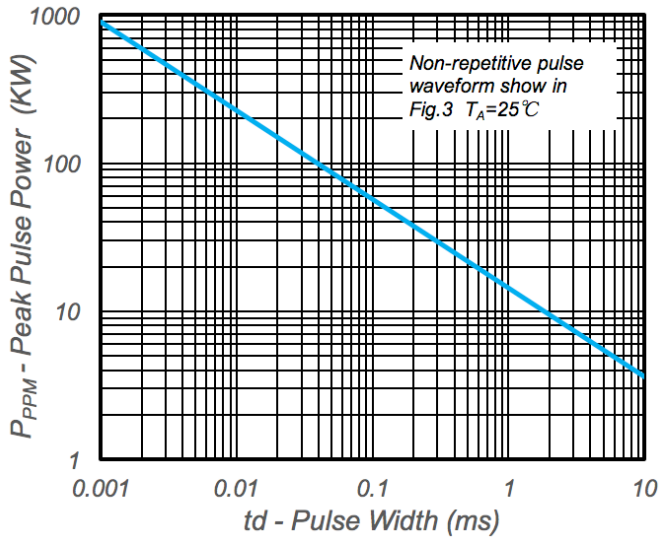


FIG2: Pulse Power or Current vs. Initial Junction Temperature

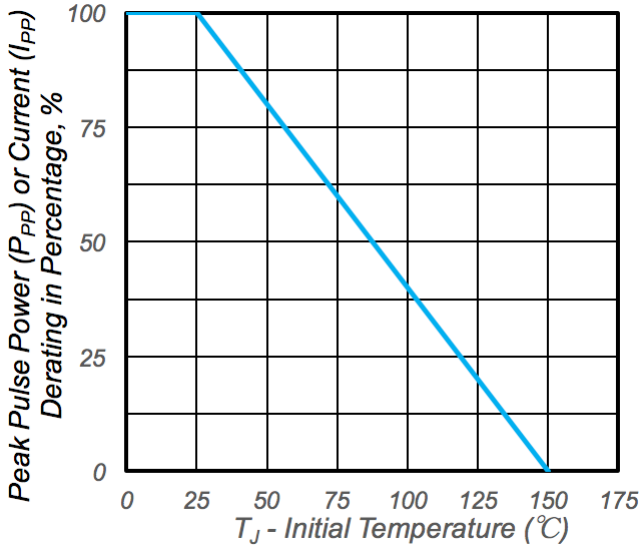


FIG3: Pulse Waveform

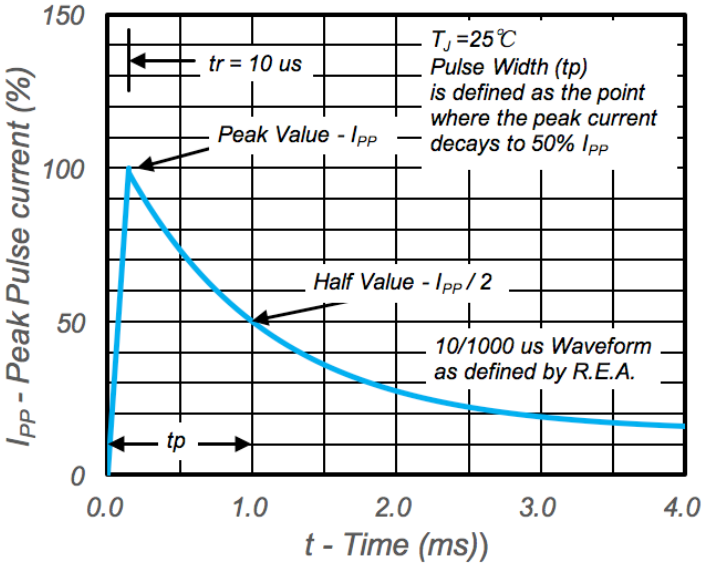
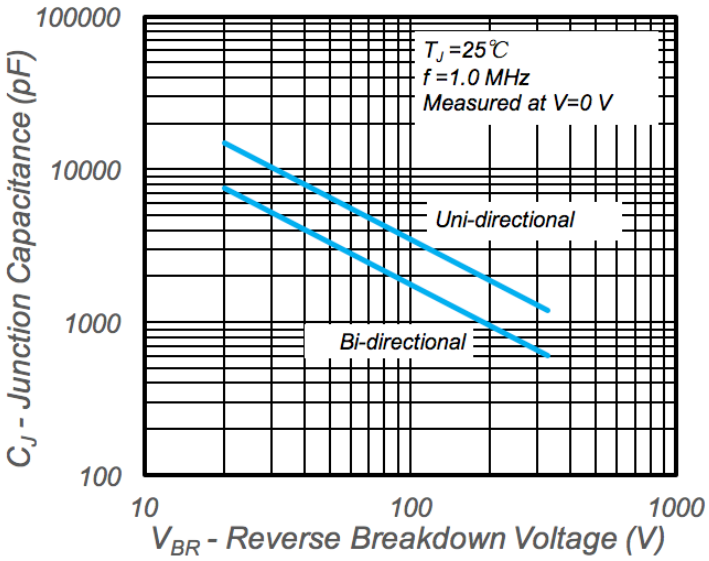
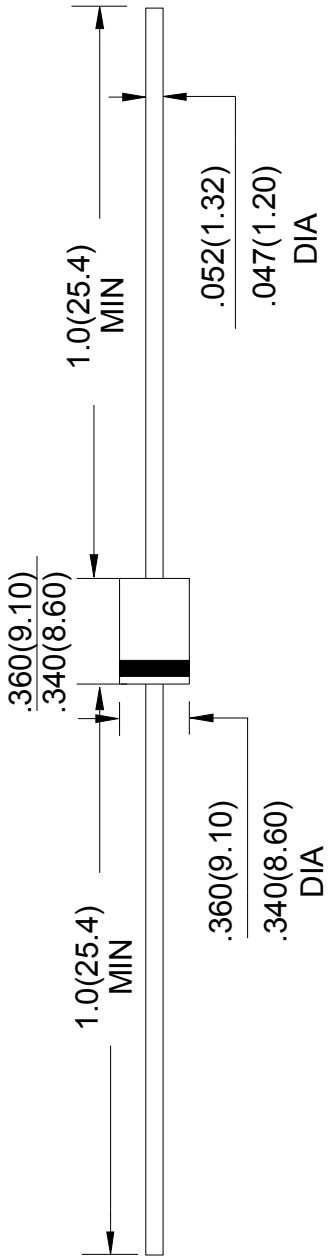


FIG4: Power Derating Curve



R-6 Package Outline Dimensions



Unit: in inches (millimeters)

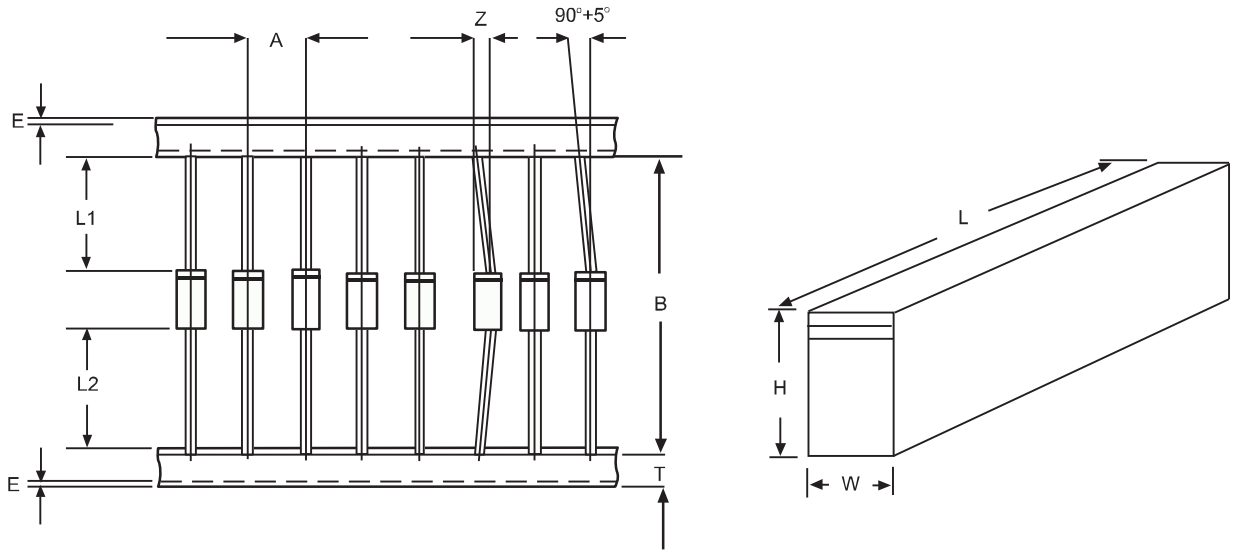
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Ammo Box Packaging Specifications For Axial Lead Rectifiers

Axial lead devices are packed in accordance with EIA standard RS-296-D and specifications given below

COMPONENT OUTLINE	COMPONENT PITCH A	INNER TAPE PITCH B	CUMULATIVE PITCH TOLERANCE
	±0.5mm(.020``)	+0.5mm(.020``)	
R-1	5.0mm	26.0mm	2.0mm/20pitch
R-1	5.0mm	52.4mm	2.0mm/10pitch
A-405	5.0mm	26.0mm	2.0mm/20pitch
A-405	5.0mm	52.4mm	2.0mm/10pitch
DO-34/DO-35	5.0mm	26.0mm	2.0mm/20pitch
DO-34/DO-35	5.0mm	52.4mm	2.0mm/10pitch
DO-41	5.0mm	26.0mm	2.0mm/20pitch
DO-41	5.0mm	52.4mm	2.0mm/10pitch
DO-15	5.0mm	52.4mm	2.0mm/10pitch
DO-27	10.0mm	52.4mm	2.0mm/10pitch
R-6	10.0mm	52.4mm	2.0mm/10pitch



ITEM	SYMBOL	SPECIFICATIONS(mm)	SPECIFICATIONS(inch)
Component alignment	Z	1.2max	0.048max
Tape width	T	6.0±0.4	0.236±0.016
Exposed adhesive	E	0.8max	0.032max
Body eccentricity	|L1-L2|	1.0max	0.040max
Box length	L	255.0±5.0	10.04±0.197
Box width	W	78.0±5.0	3.07±0.197
Box height	H	150.0±5.0	5.91±0.197

NOTE:Each component lead shall be sandwiched between tapes for A minimum of 3.2mm(0.126``)