



180 Lafayette Road
 North Hampton, NH 03862-2448
 PH: 603-964-3165
 FX: 603-964-3168
 WWW.PDEELECTRONICS.COM

TRANSIENT VOLTAGE SUPPRESSOR R15KP SERIES

FEATURES:

- Glass passivated junction chip
- Excellent Clamping Capability
- Fast Response Time
- Low Zener Impedance
- Low Leakage Current
- Fast Response Time: typically less than 1.0ps from 0 volt to BV, Bidirectional less than 10ns
- High temperature soldering guaranteed: 265°C/10 second
- 0.375", (9.5mm) lead length.
- Pb / RoHS Free

MECHANICAL DATA

- Case: Void-free molded plastic body
- Epoxy: UL94V-O rate flame retardant
- Lead: Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 2.1 grams

MAXIMUM RATINGS (Ta = 25 °C)

Rating	Symbol	Value	Unit
Peak Pulse Power Dissipation (10X1000µs, see Fig.1)	P _{PK}	15,000	W
Steady State Power Dissipation	P _D	7.0	W
Peak Forward Surge Current, 1/20 Second, Ta= 25°C (JEDEC Method) (Uni-directional devices only)	I _{FSM}	400	A
Operating and Storage Temperature Range	T _J , T _{STG}	- 55 to +175	°C

FIG.1 - PULSE WAVE FORM

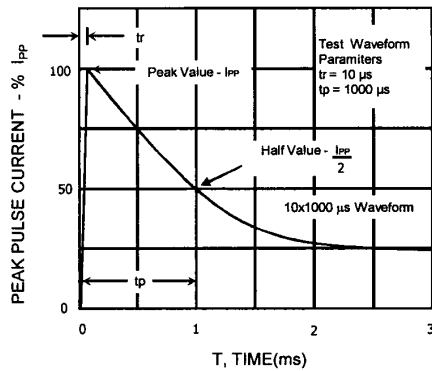
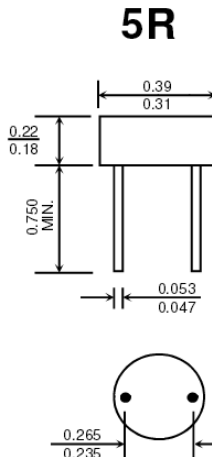
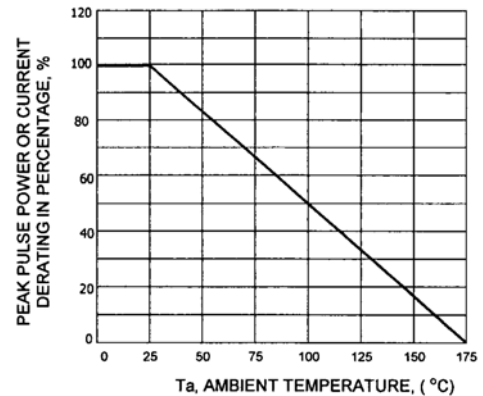


FIG.4 - PULSE DERATING CURVE



Dimension in inches

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ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified)

Part Number (Uni-directional)	Part Number (Bi-directional)	Reverse Stand Off Voltage	Breakdown Voltage@ I _T			Maximum Reverse Leakage @V _R	Maximum Clamping Voltage @ I _{PP}	Maximum Peak Pulse Current	Max. Voltage Temperature Variation Of V _{BR}
		V _{WM}	V _{BR} (V)		I _T	I _R	V _C	I _{PP}	
		(V)	Min.	Max.	(mA)	(μA)	(V)	(A)	
R15KP12	R15KP12C	12	13.3	16.3	50	10,000	22.0	658	12
R15KP12A	R15KP12CA	12	13.3	14.7	50	10,000	19.9	725	12
R15KP13	R15KP13C	13	14.4	17.6	50	10,000	23.8	607	13
R15KP13A	R15KP13CA	13	14.4	15.9	50	10,000	21.5	669	13
R15KP14	R15KP14C	14	15.6	19.1	50	8,000	25.8	564	14
R15KP14A	R15KP14CA	14	15.6	17.2	50	8,000	23.2	622	14
R15KP15	R15KP15C	15	16.7	20.4	50	8,000	26.9	526	16
R15KP15A	R15KP15CA	15	16.7	18.5	50	8,000	24.4	580	16
R15KP16	R15KP16C	16	17.8	21.8	50	8,000	28.8	493	19
R15KP16A	R15KP16CA	16	17.8	19.7	50	8,000	26.0	544	17
R15KP17	R15KP17C	17	18.9	23.1	50	5,000	32.2	464	19
R15KP17A	R15KP17CA	17	18.9	20.9	50	5,000	29.3	512	17
R15KP18	R15KP18C	18	20.0	24.4	50	5,000	34.2	439	20
R15KP18A	R15KP18CA	18	20.0	22.1	50	5,000	30.9	485	18
R15KP20	R15KP20C	20	22.2	27.1	20	1,500	37.9	396	24
R15KP20A	R15KP20CA	20	22.2	24.5	20	1,500	34.3	437	21
R15KP22	R15KP22C	22	24.4	29.8	10	500	41.1	365	27
R15KP22A	R15KP22CA	22	24.4	26.9	10	500	37.1	404	24
R15KP24	R15KP24C	24	26.7	32.6	5.0	150	45.0	333	30
R15KP24A	R15KP24CA	24	26.7	29.5	5.0	150	40.7	369	27
R15KP26	R15KP26C	26	28.9	35.3	5.0	50	48.7	308	32
R15KP26A	R15KP26CA	26	28.9	31.9	5.0	50	44.0	341	29
R15KP28	R15KP28C	28	31.1	38.0	5.0	25	52.4	286	35
R15KP28A	R15KP28CA	28	31.1	34.4	5.0	25	47.5	316	31
R15KP30	R15KP30C	30	33.3	40.7	5.0	15	56.2	267	37
R15KP30A	R15KP30CA	30	33.3	36.8	5.0	15	50.7	296	33
R15KP33	R15KP33C	33	36.7	44.9	5.0	10	60.6	248	42
R15KP33A	R15KP33CA	33	36.7	40.6	5.0	10	54.8	274	38
R15KP36	R15KP36C	36	40.0	48.9	5.0	10	66.0	227	46
R15KP36A	R15KP36CA	36	40.0	44.2	5.0	10	59.7	251	41
R15KP40	R15KP40C	40	44.4	54.3	5.0	10	72.8	206	51
R15KP40A	R15KP40CA	40	44.4	49.1	5.0	10	65.8	228	46
R15KP43	R15KP43C	43	47.8	58.4	5.0	10	77.1	195	55
R15KP43A	R15KP43CA	43	47.8	52.8	5.0	10	69.7	215	50
R15KP45	R15KP45C	45	50.0	61.1	5.0	10	80.7	186	57
R15KP45A	R15KP45CA	45	50.0	55.3	5.0	10	73.0	205	52
R15KP48	R15KP48C	48	53.3	65.1	5.0	10	85.9	175	62
R15KP48A	R15KP48CA	48	53.3	58.9	5.0	10	77.7	193	56
R15KP51	R15KP51C	51	56.7	69.3	5.0	10	91.5	164	66
R15KP51A	R15KP51CA	51	56.7	62.7	5.0	10	82.5	181	60
R15KP54	R15KP54C	54	60.0	73.3	5.0	10	96.8	155	70
R15KP54A	R15KP54CA	54	60.0	66.3	5.0	10	87.5	171	63
R15KP58	R15KP58C	58	64.4	78.7	5.0	10	104	144	76
R15KP58A	R15KP58CA	58	64.4	71.2	5.0	10	94	160	68

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Part Number (Uni-directional)	Part Number (Bi-directional)	Reverse Stand Off Voltage	Breakdown Voltage@ I _T			Maximum Reverse Leakage @ V _R	Maximum Clamping Voltage @ I _{PP}	Maximum Peak Pulse Current	Max. Voltage Temperature Variation Of V _{BR} (mV/°C)
		V _{WM}	V _{BR} (V)		I _T	I _R	V _C	I _{PP}	
		(V)	Min.	Max.	(mA)	(μA)	(V)	(A)	
R15KP60	R15KP60C	60	66.7	81.5	5.0	10	107	140	78
R15KP60A	R15KP60CA	60	66.7	73.7	5.0	10	97.3	154	70
R15KP64	R15KP64C	64	71.1	86.9	5.0	10	115	130	84
R15KP64A	R15KP64CA	64	71.1	78.6	5.0	10	104	144	76
R15KP70	R15KP70C	70	77.8	95.1	5.0	10	126	119	92
R15KP70A	R15KP70CA	70	77.8	86.0	5.0	10	114	132	83
R15KP75	R15KP75C	75	83.3	102	5.0	10	135	111	100
R15KP75A	R15KP75CA	75	83.3	92.1	5.0	10	122	123	89
R15KP78	R15KP78C	78	86.7	106	5.0	10	140	107	104
R15KP78A	R15KP78CA	78	86.7	95.8	5.0	10	126	119	93
R15KP85	R15KP85C	85	94.4	115	5.0	10	152	99	113
R15KP85A	R15KP85CA	85	94.4	104	5.0	10	137	109	102
R15KP90	R15KP90C	90	100	122	5.0	10	160	94	120
R15KP90A	R15KP90CA	90	100	111	5.0	10	146	103	110
R15KP100	R15KP100C	100	111	136	5.0	10	179	84	134
R15KP100A	R15KP100CA	100	111	123	5.0	10	162	93	123
R15KP110	R15KP110C	110	122	149	5.0	10	196	77	147
R15KP110A	R15KP110CA	110	122	135	5.0	10	178	84	133
R15KP120	R15KP120C	120	133	163	5.0	10	214	70	161
R15KP120A	R15KP120CA	120	133	147	5.0	10	193	78	146
R15KP130	R15KP130C	130	144	176	5.0	10	231	65	174
R15KP130A	R15KP130CA	130	144	159	5.0	10	209	72	158
R15KP150	R15KP150C	150	167	204	5.0	10	268	56	202
R15KP150A	R15KP150CA	150	167	185	5.0	10	243	62	184
R15KP160	R15KP160C	160	178	218	5.0	10	287	52	216
R15KP160A	R15KP160CA	160	178	197	5.0	10	259	58	196
R15KP170	R15KP170C	170	189	231	5.0	10	304	49	229
R15KP170A	R15KP170CA	170	189	209	5.0	10	275	55	208
R15KP180	R15KP180C	180	200	244	5.0	10	321	47	242
R15KP180A	R15KP180CA	180	200	221	5.0	10	287	52	220
R15KP200	R15KP200C	200	222	271	5.0	10	356	42	296
R15KP200A	R15KP200CA	200	222	245	5.0	10	325	46	274
R15KP220	R15KP220C	220	245	299	5.0	10	393	38	297
R15KP220A	R15KP220CA	220	245	271	5.0	10	347	43	273
R15KP240	R15KP240C	240	267	326	5.0	10	428	35	324
R15KP240A	R15KP240CA	240	267	295	5.0	10	387	39	300
R15KP260	R15KP260C	260	289	353	5.0	10	464	32	352
R15KP260A	R15KP260CA	260	289	319	5.0	10	419	36	317
R15KP280	R15KP280C	280	311	380	5.0	10	500	30	378
R15KP280A	R15KP280CA	280	311	344	5.0	10	452	33	342

Note: (1) Suffix " A" denotes 5% tolerance device, no suffix denotes a 10% tolerance device.

(2) For bidirectional type having V_{WM} of 16 volts and less, the I_R limit is double.

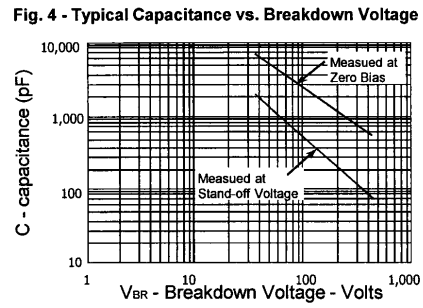
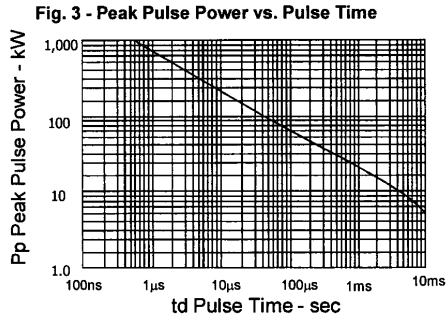
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