

MDE Semiconductor, Inc.

78-150 Calle Tampico, Unit 210, La Quinta, CA, U.S.A. 92253 Tel: 760-564-8656 • Fax: 760-564-2414

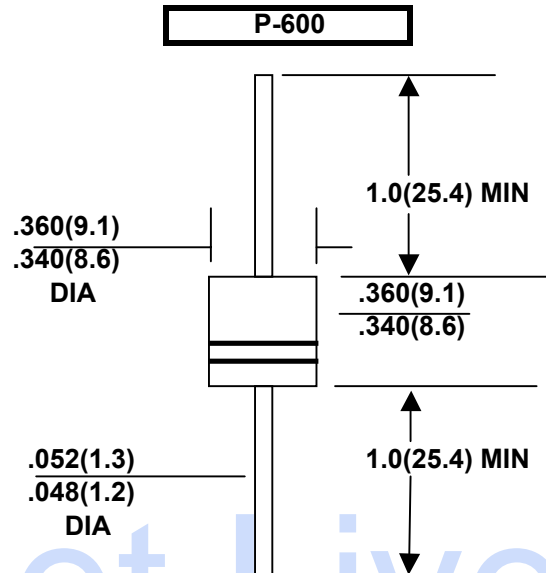
15KP SERIES

GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR

VOLTAGE-17.0 TO 220 Volts
15000 Watt Peak Pulse Power

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- 15000W Peak Pulse Power capability on 10/1000 μ s waveform
- Excellent clamping capability
- Repetition rate (duty cycle):0.05%
- Low incremental surge resistance
- Fast response time: typically less than 1.0 ps from 0 volts to BV
- Typical I_d less than 1 μ A above 10V
- High temperature soldering guaranteed: 265°C/10 seconds/.375", (9.5mm) lead length, 5lbs., (2.3kg) tension



Dimensions in inches (millimeters)

MECHANICAL DATA

Case: Molded plastic over glass passivated junction
 Terminals: Plated Axial leads, solderable per MIL-STD-750, Method 2026
 Polarity: Color band denoted positive end (cathode) except Bipolar
 Mounting Position: Any
 Weight: 0.07 ounce, 2.1 gram

DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types 15KP17 thru types 15KP220
 Electrical characteristics apply in both directions.

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000 μ s waveform (NOTE 1)	Pppm	Minimum 15000	Watts
Peak Pulse Current of on 10-1000 μ s waveform (NOTE 1)	Ippm	SEE TABLE 1	Amps
Steady State Power Dissipation at $T_I=75^\circ\text{C}$ Lead Lengths.375", (9.5mm)(NOTE 2)	Pm(AV)	8.0	Watts
Peak Forward Surge Current, 8.3ms Sine-Wave Superimposed on Rated Load, (JEDEC Method) (NOTE 3)	IFSM	400.0	Amps
Operatings and Storage Temperature Range	Tj, Tstg	-55 to +175	°C

NOTES:

1. Non-repetitive current pulse, per Fig.3 and derated above $T_a=25^\circ\text{C}$ per Fig.2.
2. Mounted on Copper Pad area of 0.8x0.8" (20x20mm) per Fig.5.
3. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle=4 pulses per minutes maximum.

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RATING AND CHARACTERISTICS CURVES 15KP SERIES

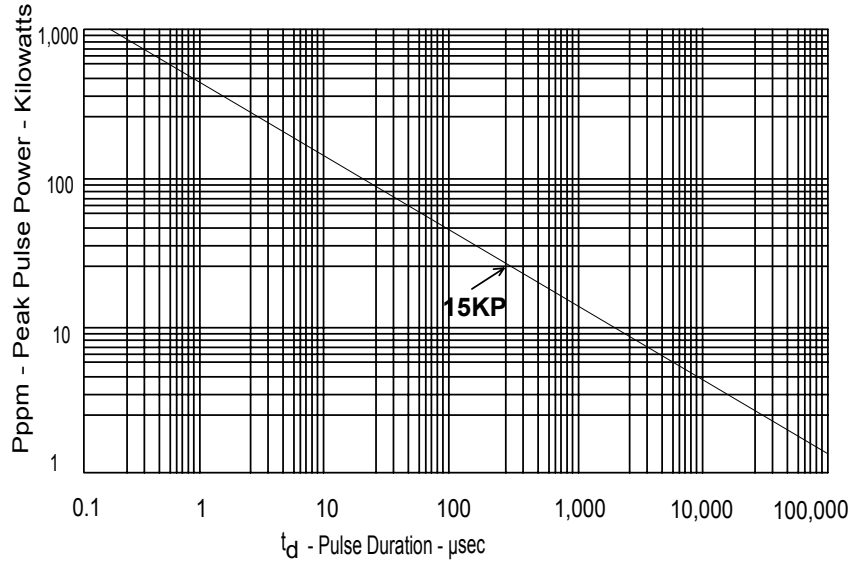


FIG. 1 PEAK PULSE POWER RATING CURVE

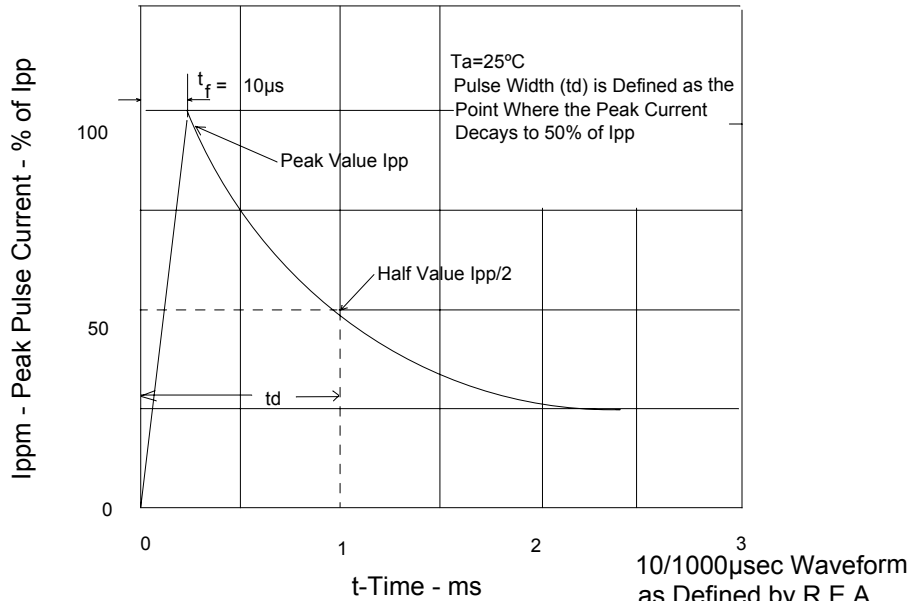


FIG. 2 PULSE WAVE FORM

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15000 Watt TVS

UNI-DIRECTIONAL PART NUMBER	REVERSE STANDOFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @ IT	TEST CURRENT (It) mA	MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @ VRWM IR (µA)
15KP17	17	18.90	50	32.3	464.0	5000
15KP17A	17	18.90	50	29.3	512.0	5000
15KP18	18	20.00	50	34.2	429.0	5000
15KP18A	18	20.00	50	30.9	485.0	5000
15KP20	20	22.20	20	37.9	396.0	1500
15KP20A	20	22.20	20	34.3	437.0	1500
15KP22	22	24.40	10	41.1	365.0	500
15KP22A	22	24.40	10	37.1	404.0	500
15KP24	24	26.70	5	45.0	333.0	150
15KP24A	24	26.70	5	40.7	369.0	150
15KP26	26	28.90	5	48.7	308.0	50
15KP26A	26	28.90	5	44.0	341.0	50
15KP28	28	31.10	5	52.4	286.0	25
15KP28A	28	31.10	5	48.5	316.0	25
15KP30	30	33.30	5	56.2	267.0	15
15KP30A	30	33.30	5	50.7	296.0	15
15KP33	33	36.70	5	60.6	248.0	10
15KP33A	33	36.70	5	54.8	374.0	10
15KP36	36	40.00	5	66.0	227.0	10
15KP36A	36	40.00	5	59.7	251.0	10
15KP40	40	44.40	5	72.8	206.0	10
15KP40A	40	44.40	5	65.8	228.0	10
15KP43	43	47.80	5	77.1	195.0	10
15KP43A	43	47.80	5	69.1	215.0	10
15KP45	45	50.00	5	60.7	186.0	10
15KP45A	45	50.00	5	73.0	205.0	10
15KP48	48	53.30	5	85.9	175.0	10
15KP48A	48	53.30	5	77.7	193.0	10
15KP51	51	56.70	5	91.5	164.0	10
15KP51A	51	56.70	5	92.8	181.0	10
15KP54A	54	60.00	5	96.8	155.0	10
15KP54A	54	60.00	5	87.5	171.0	10
15KP58	58	64.40	5	104.0	144.0	10
15KP58A	58	64.40	5	94.0	160.0	10
15KP60	60	66.70	5	107.0	140.0	10
15KP60A	60	66.70	5	97.3	154.0	10
15KP64	64	71.10	5	115.0	130.0	10
15KP64A	64	71.10	5	104.0	144.0	10
15KP70	70	77.80	5	126.0	119.0	10
15KP70A	70	77.80	5	114.0	132.0	10
15KP75	75	83.30	5	135.0	111.0	10
15KP75A	75	83.30	5	122.0	123.0	10
15KP78	78	86.70	5	140.0	107.0	10
15KP78A	78	86.70	5	126.0	119.0	10

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15KP85	85	94.40	5	152.0	99.0	10
15KP85A	85	94.40	5	137.0	109.0	10
15KP90	90	100.00	5	160.0	94.0	10
15KP90A	90	100.00	5	146.0	103.0	10
15KP100	100	111.00	5	179.0	94.0	10
15KP100A	100	111.00	5	162.0	93.0	10
15KP110	110	122.00	5	196.0	77.0	10
15KP110A	110	122.00	5	178.0	84.0	10
15KP130	130	144.00	5	231.0	65.0	10
15KP130A	130	144.00	5	209.0	72.0	10
15KP150	150	167.00	5	268.0	56.0	10
15KP150A	150	167.00	5	243.0	62.0	10
15KP160	160	178.00	5	287.0	52.0	10
15KP160A	160	178.00	5	259.0	56.0	10
15KP170	170	189.00	5	304.0	49.0	10
15KP170A	170	189.00	5	275.0	55.0	10
15KP180	180	200.00	5	321.0	47.0	10
15KP180A	180	200.00	5	291.0	52.0	10
15KP200	200	222.00	5	356.0	42.0	10
15KP200A	200	222.00	5	322.0	47.0	10
15KP220	220	245.00	5	393.0	36.0	10
15KP220A	220	245.00	5	356.0	42.0	10
15KP240	240	267.00	5	428.0	35.0	10
15KP240A	240	267.00	5	388.0	39.0	10
15KP260	260	289.00	5	464.0	32.0	10
15KP260A	260	289.00	5	419.0	36.0	10
15KP280	280	311.00	5	500.0	30.0	10
15KP280A	280	311.00	5	452.0	33.0	10

For Bidirectional type having Vrwm of 10volts and less, the IR limit is double.