

MDE Semiconductor, Inc.

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15KP SERIES

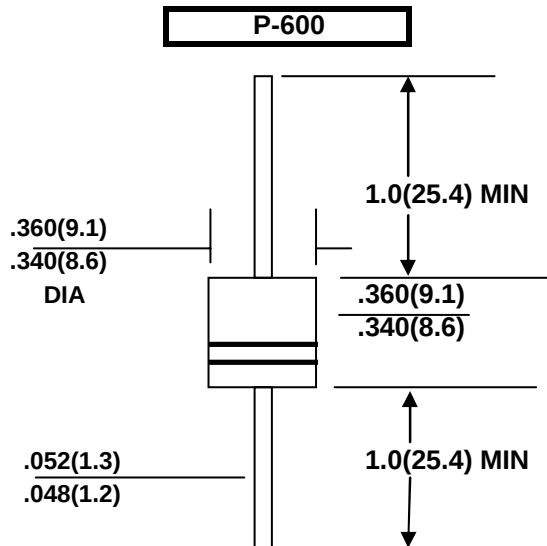
GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR VOLTAGE-17.0 TO 280 Volts 15000 Watt Peak Pulse Power

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

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



Dimensions in inches (millimeters)

DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types 15KP17 thru types 15KP280
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)	P_{PPM}	Minimum 15000	Watts
Peak Pulse Current of on 10-1000 μ s waveform (NOTE 1)	I_{PPM}	SEE TABLE 1	Amps
Steady State Power Dissipation at $T_l=75^\circ\text{C}$ Lead Lengths.375", (9.5mm)(NOTE 2)	$P_M(AV)$	8.0	Watts
Peak Forward Surge Current, 8.3ms Sine-Wave Superimposed on Rated Load, (JEDEC Method) (NOTE 3)	I_{FSM}	400.0	Amps
Operating and Storage Temperature Range	T_J, T_{STG}	-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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15KP Series Rating and Characteristics

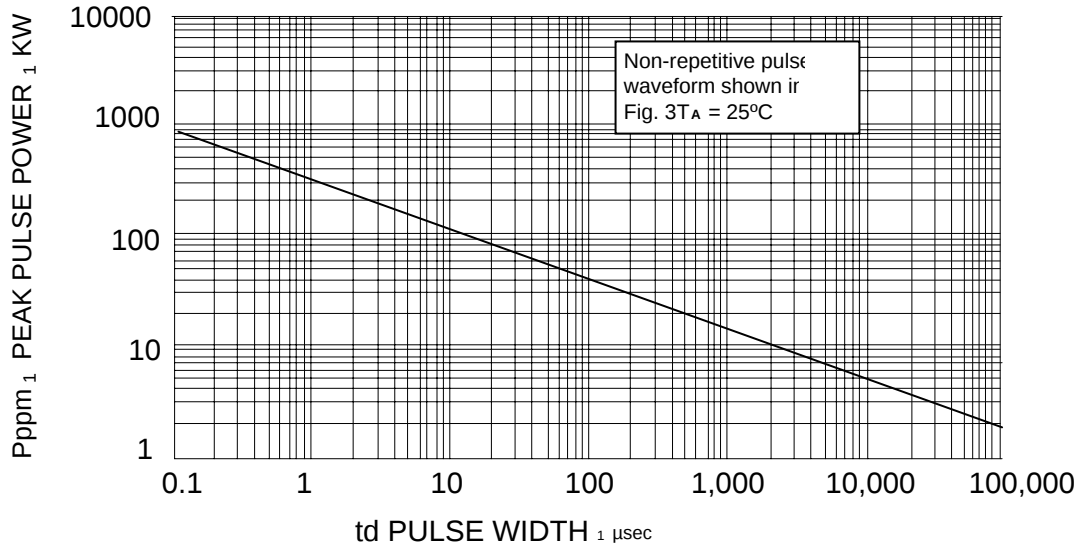


FIG. 1 PEAK PULSE POWER RATING

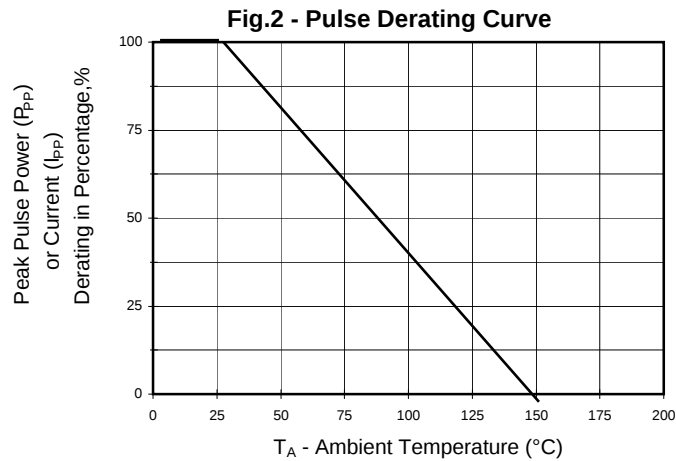
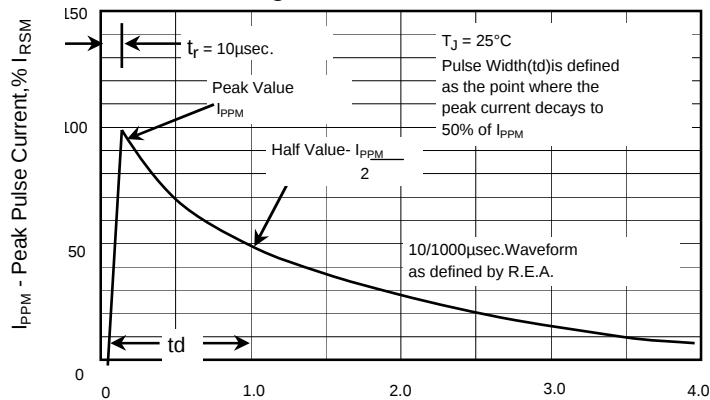


Fig.3 - Pulse Waveform



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15000 Watt TVS

UNI-POLAR	BI-POLAR	REVERSE STANDOFF VOLTAGE V _{RWM} (V)	BREAKDOWN VOLTAGE V _{BR} (V) MIN. @ I _T	TEST CURRENT (I _T) mA	MAXIMUM CLAMPING VOLTAGE @I _{PP} V _C (V)	PEAK PULSE CURRENT I _{PP} (A)	REVERSE LEAKAGE @ V _{RWM} I _R (μA)
15KP17A	15KP17CA	17	18.99	50	29.3	515.4	5000
15KP18A	15KP18CA	18	20.11	50	30.9	488.7	5000
15KP20A	15KP20CA	20	22.34	20	34.3	440.2	1500
15KP22A	15KP22CA	22	24.57	10	37.1	407.0	500
15KP24A	15KP24CA	24	26.81	5	40.7	371.0	150
15KP26A	15KP26CA	26	29.04	5	44.0	343.2	50
15KP28A	15KP28CA	28	31.28	5	47.5	317.9	25
15KP30A	15KP30CA	30	33.51	5	50.7	297.8	15
15KP33A	15KP33CA	33	36.90	5	54.7	276.1	10
15KP36A	15KP36CA	36	40.20	5	59.8	252.5	10
15KP40A	15KP40CA	40	44.70	5	65.8	229.5	10
15KP43A	15KP43CA	43	48.00	5	69.8	216.3	10
15KP45A	15KP45CA	45	50.30	5	72.8	207.4	10
15KP48A	15KP48CA	48	53.60	5	77.7	194.3	10
15KP51A	15KP51CA	51	57.00	5	82.8	182.1	10
15KP54A	15KP54CA	54	60.30	5	87.7	172.2	10
15KP58A	15KP58CA	58	64.80	5	93.8	161.0	10
15KP60A	15KP60CA	60	67.00	5	97.4	155.0	10
15KP64A	15KP64CA	64	71.50	5	104.2	144.9	10
15KP70A	15KP70CA	70	78.20	5	113.6	132.9	10
15KP75A	15KP75CA	75	83.80	5	122.0	123.8	10
15KP78A	15KP78CA	78	87.10	5	126.1	119.7	10
15KP85A	15KP85CA	85	94.90	5	137.6	109.7	10
15KP90A	15KP90CA	90	100.50	5	145.6	103.7	10
15KP100A	15KP100CA	100	111.70	5	161.3	93.6	10
15KP110A	15KP110CA	110	122.90	5	178.6	84.5	10
15KP120A	15KP120CA	120	134.00	5	192.3	78.5	10
15KP130A	15KP130CA	130	145.20	5	208.3	72.5	10
15KP150A	15KP150CA	150	167.60	5	241.9	62.4	10
15KP160A	15KP160CA	160	178.70	5	258.6	58.4	10
15KP170A	15KP170CA	170	189.90	5	272.7	55.4	10
15KP180A	15KP180CA	180	201.10	5	288.5	52.3	10
15KP200A	15KP200CA	200	223.40	5	319.1	47.3	10
15KP220A	15KP220CA	220	245.70	5	428.6	35.2	10
15KP240A	15KP240CA	240	268.10	5	384.6	39.3	10
15KP260A	15KP260CA	260	290.40	5	416.7	36.2	10
15KP280A	15KP280CA	280	312.80	5	454.5	33.2	10

For bidirectional type having V_{rwm} of 40 volts and less, the I_R limit is double.

For parts without A , the V_{BR} is ± 10%

Certified RoHS Compliant

UL File # E223026