MDE Semiconductor, Inc.

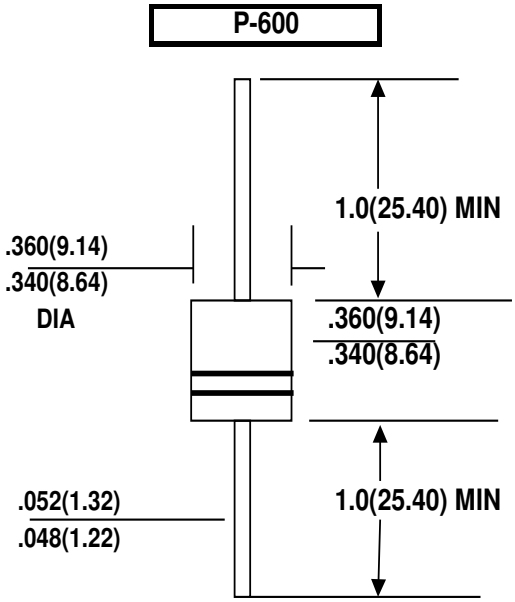
201 Shipyard Way, Unit C, Newport Beach, CA., USA 92663 Tel : 760-564-8656 • Fax : 760-564-2414
1-800-831-4881 Email: sales@mdesemiconductor.com Web: www.mdesemiconductor.com

30KP SERIES

GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR
VOLTAGE-30.0 TO 400 Volts
30000 Watt Peak Pulse Power

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- 30000W Peak Pulse Power capability on 10/1000 µs 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
- High temperature soldering guaranteed: 265°C/10 seconds/.375", (9.5mm) lead length, 5lbs., (2.3kg) tension



Dimensions in inches (milimeters)

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 30KP30 thru types 30KP400
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 µs waveform (NOTE 1)	P_{PPM}	Minimum 30000	Watts
Peak Pulse Current of on 10-1000 µs waveform (NOTE 1)	I_{PPM}	SEE TABLE 1	Amps
Steady State Power Dissipation at Tl=75 °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
Operatings and Storage Temperature Range	T_J, T_{STG}	-55 to +175	°C

NOTES:

1.Non-repetitive current pulse, per Fig.3 and derated above Ta=25 °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

Certified RoHS Compliant
UL File # E223026

8/11/2020

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30KP Series Rating and Characteristic Curves

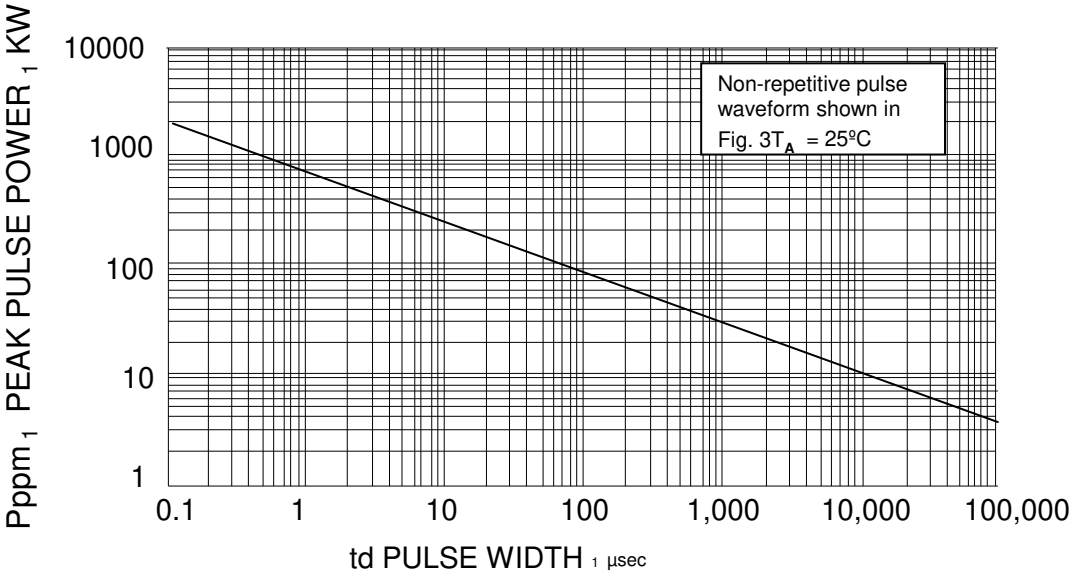
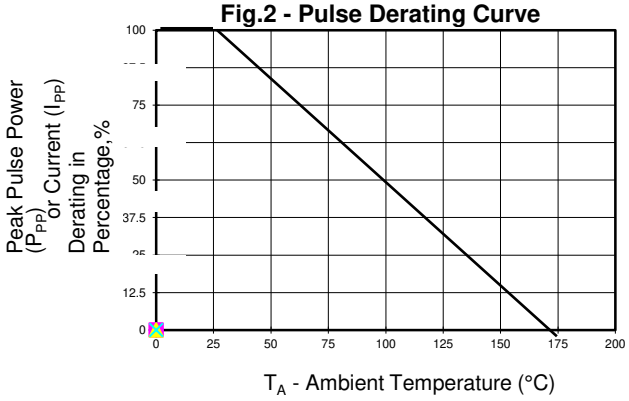


FIG. 1 PEAK PULSE POWER RATING

Fig.2 - Pulse Derating Curve



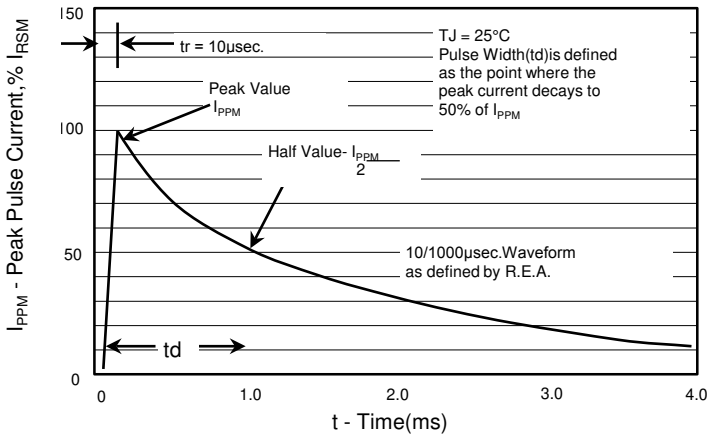


Fig.3 - Pulse Waveform

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30000 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} Vc (V)	PEAK PULSE CURRENT I_{PP} (A)	REVERSE LEAKAGE @ V_{RWM} I_R (µA)
30KP28A	30KP28CA	28.00	31.28	50	50.0	606.0	5000
30KP30A	30KP30CA	30.00	33.51	50	55.2	548.9	5000
30KP33A	30KP33CA	33.00	36.9	50	58.5	517.2	5000
30KP36A	30KP36CA	36.00	40.2	50	61.8	490.3	5000
30KP39A	30KP39CA	39.00	43.6	20	67.2	450.9	2000
30KP42A	30KP42CA	42.00	46.9	10	72.0	420.8	1000
30KP43A	30KP43CA	43.00	48.0	10	73.0	415.1	1000
30KP45A	30KP45CA	45.00	50.3	5	77.4	391.5	250
30KP48A	30KP48CA	48.00	53.6	5	81.6	371.3	150
30KP51A	30KP51CA	51.00	57.0	5	86.4	350.7	50
30KP54A	30KP54CA	54.00	60.3	5	91.4	331.5	20
30KP58A	30KP58CA	58.00	64.8	5	92.4	327.9	20
30KP60A	30KP60CA	60.00	67.0	5	102.0	297.1	15
30KP64A	30KP64CA	64.00	71.5	5	104.0	291.3	10
30KP66A	30KP66CA	66.00	73.7	5	107.0	283.2	10
30KP70A	30KP70CA	70.00	78.2	5	109.0	278.0	10
30KP71A	30KP71CA	71.00	79.3	5	111.5	271.7	10
30KP72A	30KP72CA	72.00	80.4	5	114.0	265.8	10
30KP75A	30KP75CA	75.00	83.8	5	119.4	253.8	10
30KP78A	30KP78CA	78.00	87.1	5	129.0	234.9	10
30KP84A	30KP84CA	84.00	93.8	5	139.2	217.7	10
30KP90A	30KP90CA	90.00	100.5	5	146.4	207.0	10
30KP96A	30KP96CA	96.00	107.2	5	156.0	194.2	10
30KP102A	30KP102CA	102.00	113.9	5	165.6	183.0	10
30KP108A	30KP108CA	108.00	120.6	5	175.2	172.9	10
30KP120A	30KP120CA	120.00	134.0	5	194.4	155.9	10
30KP132A	30KP132CA	132.00	147.4	5	213.0	142.3	10
30KP144A	30KP144CA	144.00	160.8	5	223.2	135.8	10
30KP150A	30KP150CA	150.00	167.6	5	233.4	129.8	10
30KP156A	30KP156CA	156.00	174.3	5	245.0	123.7	10
30KP160A	30KP160CA	160.00	178.7	5	252.6	120.0	10
30KP168A	30KP168CA	168.00	187.7	5	272.4	111.2	10
30KP170A	30KP170CA	170.00	189.9	5	275.0	110.2	10
30KP180A	30KP180CA	180.00	201.1	5	290.4	104.3	10
30KP198A	30KP198CA	198.00	221.2	5	319.8	94.7	10
30KP216A	30KP216CA	216.00	241.3	5	348.6	86.9	10
30KP240A	30KP240CA	240.00	268.1	5	387.0	78.3	10
30KP258A	30KP258CA	258.00	288.2	5	416.4	72.8	10
30KP260A	30KP260CA	260.00	290.4	5	416.0	72.8	10
30KP270A	30KP270CA	270.00	301.6	5	436.2	69.5	10
30KP280A	30KP280CA	280.00	312.8	5	464.0	65.3	10
30KP288A	30KP288CA	288.00	321.7	5	469.9	64.5	10
30KP300A	30KP300CA	300.00	333.0	5	483.0	62.0	10
30KP350A	30KP350CA	350.00	389.0	5	564.0	53.0	10
30KP400A	30KP400CA	400.00	444.0	5	644.0	46.0	10

For bidirectional type having Vrwm of 40 volts and less, the IR limit is double.
For parts without A , the V_{BR} is ± 10%

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