MDE Semiconductor, Inc.

78-150 Calle Tampico, Unit 210, La Quinta, CA., USA 92253 Tel: 760-564-8656 • Fax: 760-564-2414
1-800-831-4881 Email: sales@mdesemicondutor.com Web: www.mdesemiconductor.com

30KW SERIES

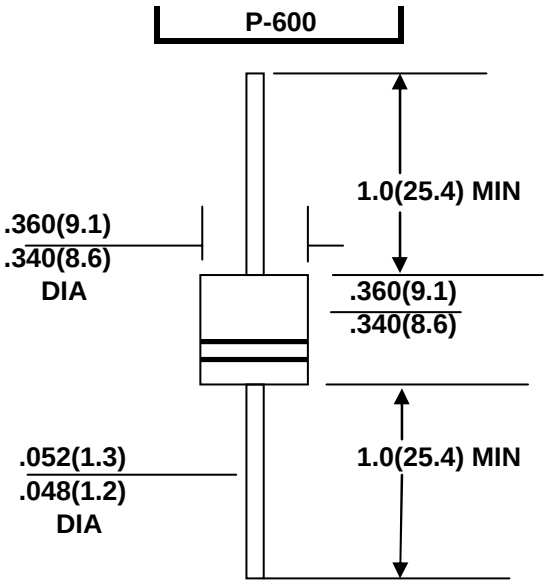
GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR

VOLTAGE-28.0 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
- Typical Id less than 1μA above 10V
- 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 28KW30 thru types 30KW400
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

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30KW Series Rating and Characteristic Curves

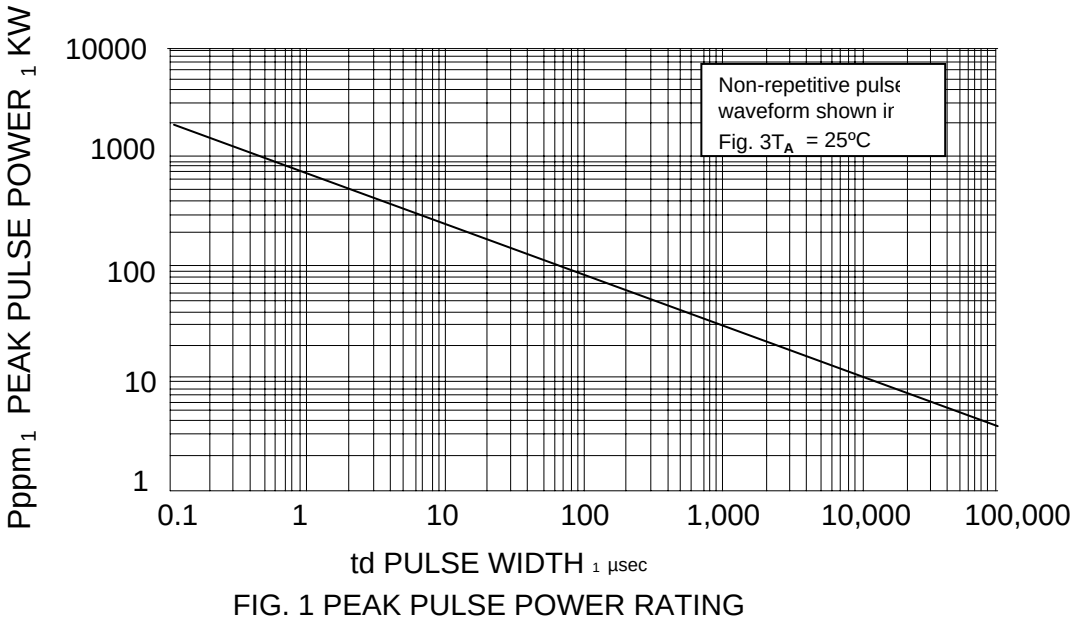
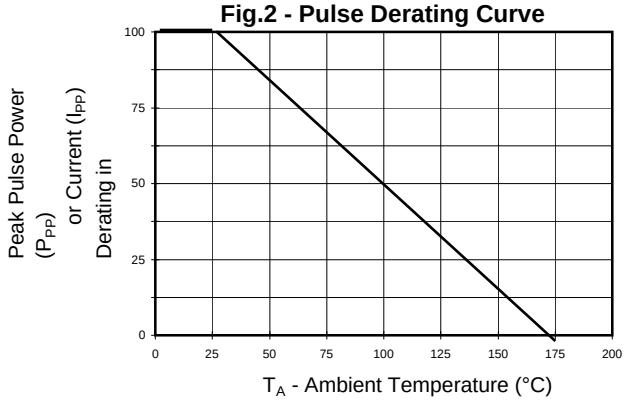


FIG. 1 PEAK PULSE POWER RATING

Fig.2 - Pulse Derating Curve



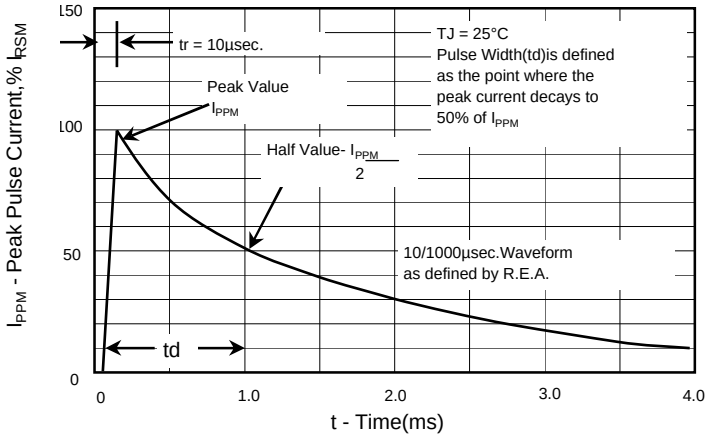


Fig.3 - Pulse Waveform

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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)
30KW28A	30KW28CA	28.00	31.3	50	50.0	606.0	5000
30KW30A	30KW30CA	30.00	33.5	50	55.2	548.9	5000
30KW33A	30KW33CA	33.00	36.9	50	58.5	517.2	5000
30KW36A	30KW36CA	36.00	40.2	50	61.8	490.3	5000
30KW39A	30KW39CA	39.00	43.6	20	67.2	450.9	2000
30KW42A	30KW42CA	42.00	46.9	10	72.0	420.8	1000
30KW43A	30KW43CA	43.00	48.0	10	73.0	415.1	1000
30KW45A	30KW45CA	45.00	50.3	5	77.4	391.5	250
30KW48A	30KW48CA	48.00	53.6	5	81.6	371.3	150
30KW51A	30KW51CA	51.00	57.0	5	86.4	350.7	50
30KW54A	30KW54CA	54.00	60.3	5	91.4	331.5	20
30KW58A	30KW58CA	58.00	64.8	5	92.4	327.9	20
30KW60A	30KW60CA	60.00	67.0	5	102.0	297.1	15
30KW64A	30KW64CA	64.00	71.5	5	104.0	291.3	10
30KW66A	30KW66CA	66.00	73.7	5	107.0	283.2	10
30KW70A	30KW70CA	70.00	78.2	5	109.0	278.0	10
30KW71A	30KW71CA	71.00	79.3	5	111.5	271.7	10
30KW72A	30KW72CA	72.00	80.4	5	114.0	265.8	10
30KW75A	30KW75CA	75.00	83.8	5	119.4	253.8	10
30KW78A	30KW78CA	78.00	87.1	5	129.0	234.0	10
30KW84A	30KW84CA	84.00	93.8	5	139.2	217.7	10
30KW90A	30KW90CA	90.00	100.5	5	146.4	207.0	10
30KW96A	30KW96CA	96.00	107.2	5	156.0	194.2	10
30KW102A	30KW102CA	102.00	113.9	5	165.6	183.0	10
30KW108A	30KW108CA	108.00	120.6	5	175.2	172.9	10
30KW120A	30KW120CA	120.00	134.0	5	194.4	155.9	10
30KW132A	30KW132CA	132.00	147.4	5	213.0	142.3	10
30KW144A	30KW144CA	144.00	160.8	5	223.2	135.8	10
30KW150A	30KW150CA	150.00	167.6	5	233.4	129.8	10
30KW156A	30KW156CA	156.00	174.3	5	245.0	123.7	10
30KW160A	30KW160CA	160.00	178.7	5	252.6	120.0	10
30KW168A	30KW168CA	168.00	187.7	5	272.4	111.2	10
30KW170A	30KW170CA	170.00	189.9	5	275.0	110.2	10
30KW180A	30KW180CA	180.00	201.1	5	290.4	104.3	10
30KW198A	30KW198CA	198.00	221.2	5	319.8	94.7	10
30KW216A	30KW216CA	216.00	241.3	5	348.6	86.9	10
30KW240A	30KW240CA	240.00	268.1	5	387.0	78.3	10
30KW258A	30KW258CA	258.00	288.2	5	416.4	72.8	10
30KW260A	30KW260CA	260.00	290.4	5	416.0	72.8	10
30KW270A	30KW270CA	270.00	301.6	5	436.2	69.5	10
30KW280A	30KW280CA	280.00	312.8	5	464.0	65.3	10
30KW288A	30KW288CA	288.00	321.7	5	469.9	64.5	10
30KW300A	30KW300CA	300.00	333.0	5	483.0	62.0	10
30KW350A	30KW350CA	350.00	389.0	5	564.0	53.0	10
30KW400A	30KW400CA	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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UL File # E223026