

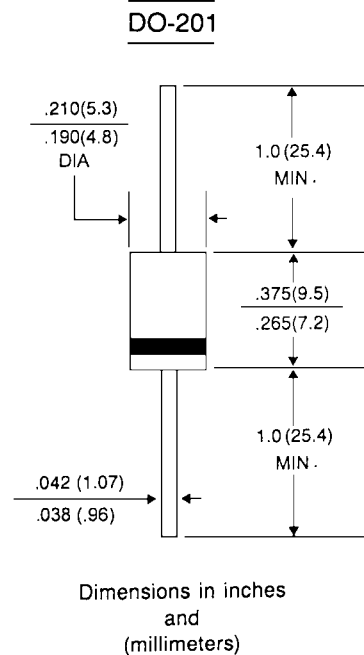
GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR
VOLTAGE — 6.8 to 440 Volts
1500 Watt Peak Power 5.0 Watt Steady State

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated chip junction in Molded Plastic package
- 1500W surge capability at 1 ms
- Excellent clamping capability
- Low zener impedance
- Fast response time: typically less than 1.0 ps from 0 volts to BV min.
- Typical I_r less than 1μA above 10V
- High temperature soldering guaranteed: 250 °C / 10 seconds / .375", (9.5mm) lead length, 5lbs., (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-201 Molded plastic
 Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
 Polarity: Color band denoted cathode except Bipolar
 Mounting Position: Any
 Weight: 0.045 ounce, 1.2 gram



DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types 1.5KE6.8 thru types 1.5KE440. (e.g. 1.5KE6.8C, 1.5KE440CA)
 Electrical characteristics apply in both directions.

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Power Dissipation at T _A = 25 °C , T _P = 1ms (NOTE 1)	P _{PPM}	Minimum 1500	Watts
Steady State Power Dissipation at T _L = 75 °C Lead Lengths .375", (9.5mm) (NOTE 2)	P _{M (AV)}	5.0	Watts
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) (NOTE 3)	I _{FSM}	200	Amps
Operating junction and Storage Temperature Range	T _J , T _{STG}	- 55 to + 175	°C

NOTES:

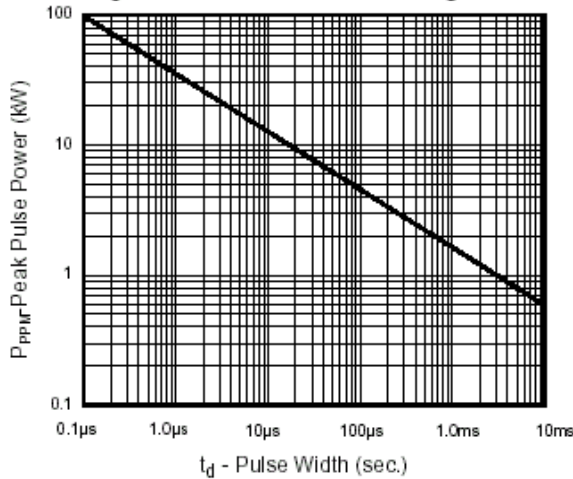
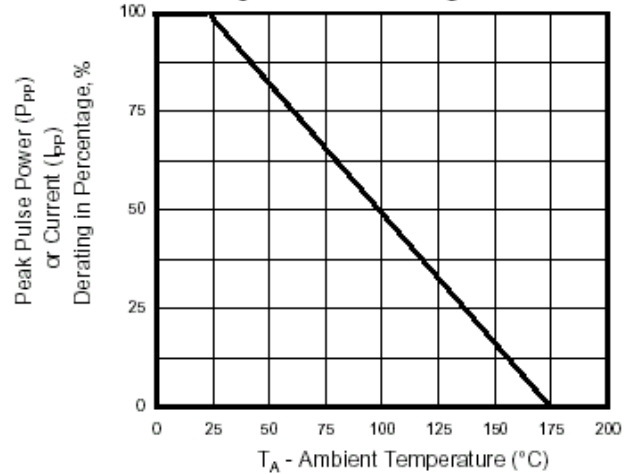
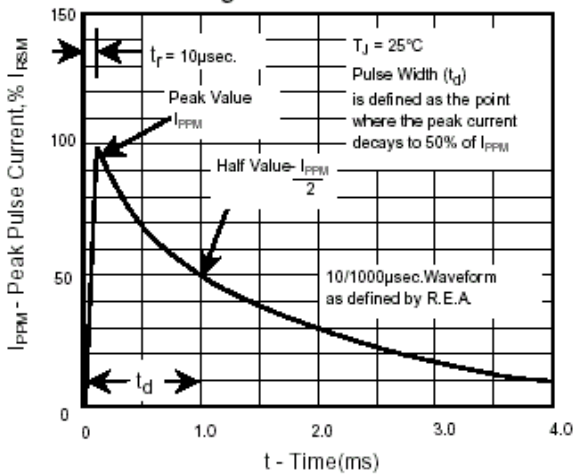
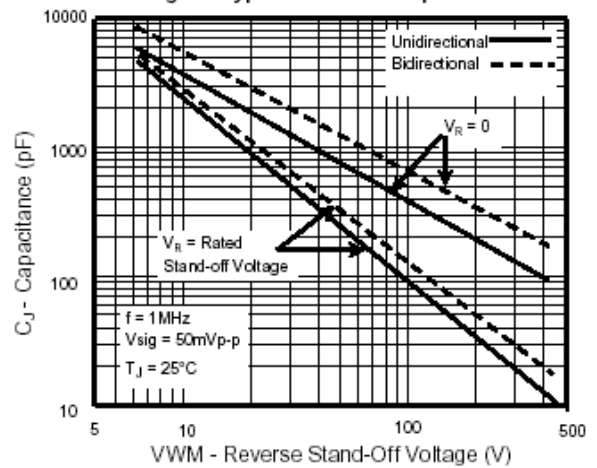
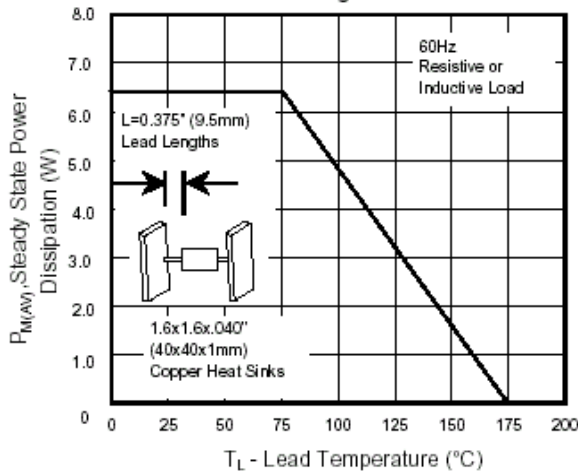
1. Non-repetitive current pulse, per Fig.3 and derated above T_A = 25 °C per Fig.2.
2. Mounted on Copper Pad area of 0.8X0.8" (20X20mm) per Fig.5.
3. 8.3ms single half sine-wave, duty cycle = 4 pulses per minutes maximum.

1500 Watt Axial Lead TVS

UNI-DIRECTIONAL PART NUMBER	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @ IT	BREAKDOWN VOLTAGE VBR (V) MAX. @ IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @ VRWM IR (μA)
1.5KE6.8A	5.80	6.45	7.14	10	10.5	144.8	1000
1.5KE7.5A	6.40	7.13	7.88	10	11.3	134.5	500
1.5KE8.2A	7.02	7.79	8.61	10	12.1	125.6	200
1.5KE9.1A	7.78	8.65	9.50	1	13.4	113.4	50
1.5KE10A	8.55	9.50	10.50	1	14.5	104.8	10
1.5KE11A	9.40	10.50	11.60	1	15.6	97.4	5
1.5KE12A	10.20	11.40	12.60	1	16.7	91.0	5
1.5KE13A	11.10	12.40	13.70	1	18.2	83.5	5
1.5KE15A	12.80	14.30	15.80	1	21.2	71.7	5
1.5KE16A	13.60	15.20	16.80	1	22.5	67.6	5
1.5KE18A	15.30	17.10	18.90	1	25.2	60.3	5
1.5KE20A	17.10	19.00	21.00	1	27.7	54.9	5
1.5KE22A	18.80	20.90	23.10	1	30.6	49.7	5
1.5KE24A	20.50	22.80	25.20	1	33.2	45.8	5
1.5KE27A	23.10	25.70	28.40	1	37.5	40.5	5
1.5KE30A	25.60	28.50	31.50	1	41.4	36.7	5
1.5KE33A	28.20	31.40	34.70	1	45.7	33.3	5
1.5KE36A	30.80	34.20	37.80	1	49.9	30.5	5
1.5KE39A	33.30	37.10	41.00	1	53.9	28.2	5
1.5KE43A	36.80	40.90	45.20	1	59.3	25.6	5
1.5KE47A	40.20	44.70	49.40	1	64.8	23.5	5
1.5KE51A	43.60	48.50	53.60	1	70.1	21.7	5
1.5KE56A	47.80	53.20	58.80	1	77.0	19.7	5
1.5KE62A	53.00	58.90	65.10	1	85.0	17.9	5
1.5KE68A	58.10	64.60	71.40	1	92.0	16.5	5
1.5KE75A	64.10	71.30	78.80	1	103.0	14.8	5
1.5KE82A	70.10	77.90	86.10	1	113.0	13.5	5
1.5KE91A	77.80	86.50	95.50	1	125.0	12.2	5
1.5KE100A	85.50	95.00	105.00	1	137.0	11.1	5
1.5KE110A	94.00	105.00	116.00	1	152.0	10.0	5
1.5KE120A	102.00	114.00	126.00	1	165.0	9.2	5
1.5KE130A	111.00	124.00	137.00	1	179.0	8.5	5
1.5KE150A	128.00	143.00	158.00	1	207.0	7.3	5
1.5KE160A	136.00	152.00	168.00	1	219.0	6.9	5
1.5KE170A	145.00	162.00	179.00	1	234.0	6.5	5
1.5KE180A	154.00	171.00	189.00	1	246.0	6.2	5
1.5KE200A	171.00	190.00	210.00	1	274.0	5.5	5
1.5KE220A	185.00	209.00	231.00	1	328.0	4.6	5
1.5KE250A	214.00	237.00	263.00	1	344.0	4.4	5
1.5KE300A	256.00	285.00	315.00	1	414.0	3.7	5
1.5KE350A	300.00	332.00	368.00	1	482.0	3.2	5
1.5KE400A	342.00	380.00	420.00	1	548.0	2.8	5
1.5KE440A	376.00	418.00	462.00	1	600.0	2.5	5

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

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig. 1 - Peak Pulse Power Rating Curve

Fig.2 - Pulse Derating Curve

Fig.3 - Pulse Waveform

Fig. 4 - Typical Junction Capacitance

Fig. 5 - Steady State Power Derating Curve

Fig.6 - Maximum Non-Repetitive Forward Surge Current Uni-Directional Only
