

DB LECTRO Inc.

1.5KE SERIES

GLASS PASSOVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR

VOLTAGE - 6.8 to 440 Volts

1500 Watts Peak Power 6.5 Watt Steady State

1.5KE PART NUMBER		REVERSE STAND- OFF VOLTAGE V _{BR} (V) MIN.@I _T	BREAKDOWN VOLTAGE V _{BR} (V) MAX.@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)
UNI- POLAR	BI-POLAR						
1.5KE6.8A	1.5KE6.8CA	5.80	6.45	10	10.5	144.8	1000
1.5KE7.5A	1.5KE7.5CA	6.40	7.13	10	11.3	134.5	500
1.5KE8.2A	1.5KE8.2CA	7.02	7.79	10	12.1	125.6	200
1.5KE9.1A	1.5KE9.1CA	7.78	8.65	1	13.4	113.4	50
1.5KE10A	1.5KE10CA	8.55	9.50	1	14.5	104.8	10
1.5KE11A	1.5KE11CA	9.40	10.50	1	15.6	97.4	5
1.5KE12A	1.5KE12CA	10.20	11.40	1	16.7	91.0	5
1.5KE13A	1.5KE13CA	11.10	12.40	1	18.2	83.5	5
1.5KE15A	1.5KE15CA	12.80	14.30	1	21.2	71.7	5
1.5KE16A	1.5KE16CA	13.60	15.20	1	22.5	67.6	5
1.5KE18A	1.5KE18CA	15.30	17.10	1	25.2	60.3	5
1.5KE20A	1.5KE20CA	17.10	19.00	1	27.7	54.9	5
1.5KE22A	1.5KE22CA	18.80	20.90	1	30.6	49.7	5
1.5KE24A	1.5KE24CA	20.50	22.80	1	33.2	45.8	5
1.5KE27A	1.5KE27CA	23.10	25.70	1	37.5	40.5	5
1.5KE30A	1.5KE30CA	25.60	28.50	1	41.4	36.7	5
1.5KE33A	1.5KE33CA	28.20	31.40	1	45.7	33.3	5
1.5KE36A	1.5KE36CA	30.80	34.20	1	49.9	30.5	5
1.5KE39A	1.5KE39CA	33.30	37.10	1	53.9	28.2	5
1.5KE43A	1.5KE43CA	36.80	40.90	1	59.3	25.6	5
1.5KE47A	1.5KE47CA	40.20	44.70	1	64.8	23.5	5
1.5KE51A	1.5KE51CA	43.60	48.50	1	70.1	21.7	5
1.5KE56A	1.5KE56CA	47.80	53.20	1	77.0	19.7	5
1.5KE62A	1.5KE62CA	53.00	58.90	1	85.0	17.9	5
1.5KE68A	1.5KE68CA	58.10	64.60	1	92.0	16.5	5
1.5KE75A	1.5KE75CA	64.10	71.30	1	103.0	14.8	5
1.5KE82A	1.5KE82CA	70.10	77.90	1	113.0	13.5	5
1.5KE91A	1.5KE91CA	77.80	86.50	1	125.0	12.2	5
1.5KE100A	1.5KE100CA	85.50	95.00	1	137.0	11.1	5
1.5KE110A	1.5KE110CA	94.00	105.00	1	152.0	10.0	5
1.5KE120A	1.5KE120CA	102.00	114.00	1	165.0	9.2	5
1.5KE130A	1.5KE130CA	111.00	124.00	1	179.0	8.5	5
1.5KE150A	1.5KE150CA	128.00	143.00	1	207.0	7.3	5
1.5KE160A	1.5KE160CA	136.00	152.00	1	219.0	6.9	5
1.5KE170A	1.5KE170CA	145.00	162.00	1	234.0	6.5	5
1.5KE180A	1.5KE180CA	154.00	171.00	1	246.0	6.2	5
1.5KE200A	1.5KE200CA	171.00	190.00	1	274.0	5.5	5
1.5KE220A	1.5KE220CA	185.00	209.00	1	328.0	4.6	5
1.5KE250A	1.5KE250CA	214.00	237.00	1	344.0	4.4	5
1.5KE300A	1.5KE300CA	256.00	285.00	1	414.0	3.7	5
1.5KE350A	1.5KE350CA	300.00	332.00	1	482.0	3.2	5
1.5KE400A	1.5KE400CA	342.00	380.00	1	548.0	2.8	5
1.5KE440A	1.5KE440CA	376.00	418.00	1	600.0	2.5	5

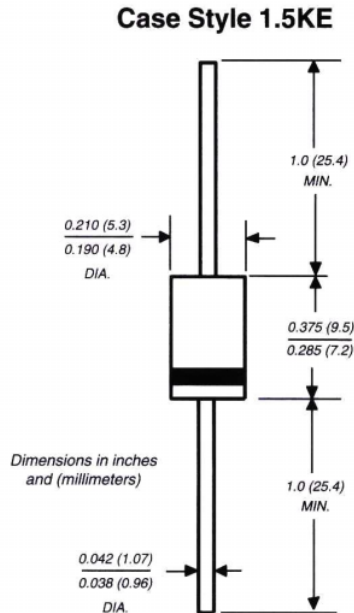
For bidirectional type having V_{rwm} of 10 volts and less, the I_R limit is double.

For parts without A , the V_{BR} is $\pm 10\%$

GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR VOLTAGE-6.8 TO 440 Volts 1500 watt Peak Power / 6.5 Watt Steady State

FEATURES

Plastic package
Glass passivated chip junction in DO-201 package
1500W surge capability at 10/1000 μ s wave from
Excellent clamping capability
Low zener impedance
Fast response time: typically less than 1.0ps from 0 Volts to BV min.
Typical IR less than 1mA above 10V
High temperature soldering guaranteed: 265°C/10 seconds/.375",
(9.5mm) lead length, 5lbs., (2.3kg) tension



MECHANICAL DATA

Case: JEDEC DO-201 Molded plastic

Terminal: Axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode except Bipolar

Mounting Position: Any

Weight: 0.045 ounce, 1.2 grams

DEVICES FOR BIPOLAR APPLICATION

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 ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Power Dissipation at $T_A = 25$, $T_P = 1$ ms (Note 1)	P_{PPM}	Minimum 1500	Watts
Steady State Power Dissipation at $T_L = 75$, Lead lengths.375",(9.5mm) (Note 2)	$P_{M(AV)}$	6.5	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	

Notes :

- 1.Non-repetitive current pulse , per Fig. 3 and derated above $T_A = 25$ per Fig. 2 .
- 2.Mounted on Copper Pad area of 1.6×1.6" (40×40mm) per Fig. 5.
- 3.8.3ms single half sine-wave , or equivalent square wave, Duty cycle = 4 pulses per minutes maximum.

Ratings and

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

Fig. 1 - Peak Pulse Power Rating Curve

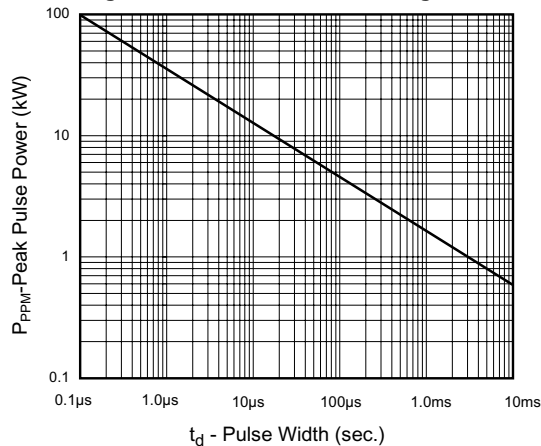


Fig. 2 - Pulse Derating Curve

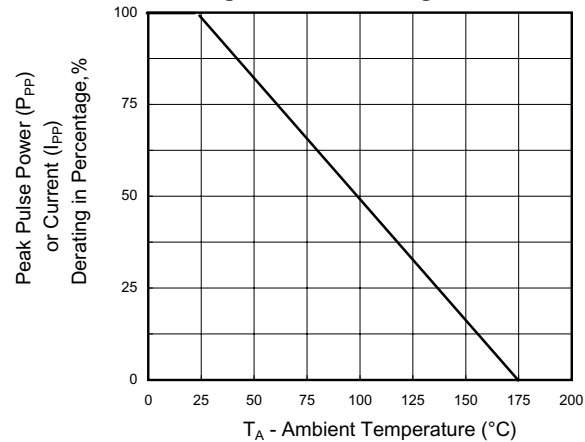


Fig. 3 - Pulse Waveform

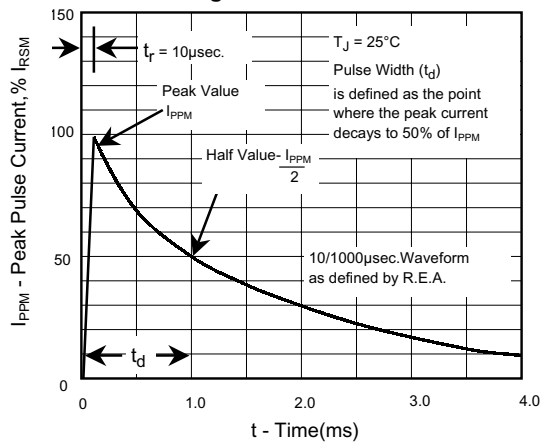


Fig. 4 - Typical Junction Capacitance

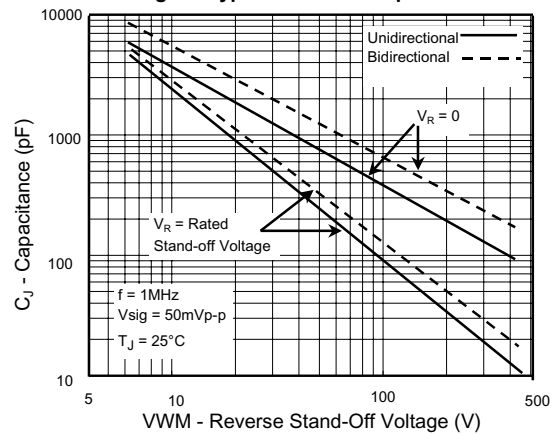


Fig. 5 - Steady State Power Derating Curve

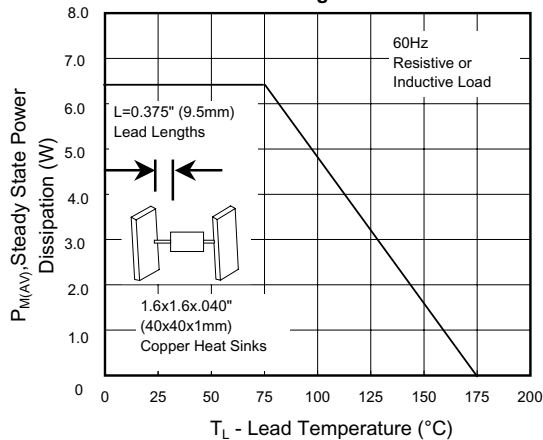


Fig. 6 - Maximum Non-Repetitive Forward Surge Current Uni-Directional Only

