FEATURE

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

DO-201

MECHANICAL DATE

- ✧ Case: JEDEC DO-201 Molded Plastic.
- ✧ Terminals: Axial leads, solderable per MIL-STD-750, Method 2026.
- ✧ Polarity: Color and 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 1.5KE550 (e.g.1.5KE6.8C, 1.5KE550CA), electrical characteristics apply in both directions.

MAXIMUM RATINGS AND CHARACTERISTICS

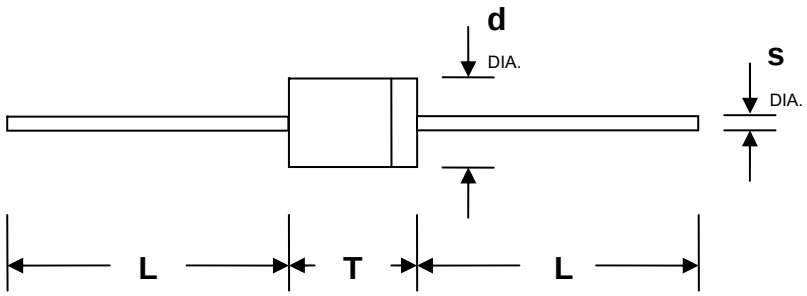
Ratings at 25℃ ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000μs waveform (Note1, Fig.1).	P_{PPM}	Minimum 1500	Watts
Peak Pulse Current of on 10/1000μs waveform.(Note1,Fig.3)	I_{PPM}	See Table	Amps
Steady State Power Dissipation at T_L =75℃,Lead lengths.375”, (9.5mm) (Fig.5).	$P_{M(AV)}$	6.5	Watts
Peak Forward Surge Current,8.3ms Single Half Sine-Wave Superimposed on Rated Load, (JEDEC Method) (Note 2,Fig.6).	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. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle = 4 pulses per minutes maximum.

DIMENSIONS



DO-201

Item	Millimeters		Inches	
	Min.	Max.	Min.	Max.
L	25.40	-	1.000	-
T	7.20	9.50	0.285	0.375
d	4.80	5.30	0.190	0.210
s	0.96	1.07	0.038	0.042

ELECTRICAL CHARACTERISTICS

Part Number		Reverse Stand-Off Voltage	Breakdown Voltage NIN.@I_T	Breakdown Voltage MAX.@I_T	Test Current	Maximum Clamping Voltage @I_{PP}	Peak Pulse Current	Reverse Leakage @V_{RWM}
UNT-POLAR	BI-POLAR	V_{RWM}(V)	$V_{BR\ MIN.}$(V)	$V_{BR\ MAX.}$(V)	I_T(mA)	V_C(V)	I_{PP}(A)	I_R(μA)
1.5KE6.8A	1.5KE6.8CA	5.80	6.45	7.14	10	10.5	144.8	1000
1.5KE7.5A	1.5KE7.5CA	6.40	7.13	7.88	10	11.3	134.5	500
1.5KE8.2A	1.5KE8.2CA	7.02	7.79	8.61	10	12.1	125.6	200
1.5KE9.1A	1.5KE9.1CA	7.78	8.65	9.55	1	13.4	113.4	50
1.5KE10A	1.5KE10CA	8.55	9.50	10.50	1	14.5	104.8	10
1.5KE11A	1.5KE11CA	9.40	10.50	11.60	1	15.6	97.4	5
1.5KE12A	1.5KE12CA	10.20	11.40	12.60	1	16.7	91.0	5
1.5KE13A	1.5KE13CA	11.10	12.40	13.70	1	18.2	83.5	1
1.5KE15A	1.5KE15CA	12.80	14.30	15.80	1	21.2	71.7	1
1.5KE16A	1.5KE16CA	13.60	15.20	16.80	1	22.5	67.6	1
1.5KE18A	1.5KE18CA	15.30	17.10	18.90	1	25.2	60.3	1
1.5KE20A	1.5KE20CA	17.10	19.00	21.00	1	27.7	54.9	1
1.5KE22A	1.5KE22CA	18.80	20.90	23.10	1	30.6	49.7	1
1.5KE24A	1.5KE24CA	20.50	22.80	25.20	1	33.2	45.8	1
1.5KE27A	1.5KE27CA	23.10	25.70	28.40	1	37.5	40.5	1

ELECTRICAL CHARACTERISTICS

Part Number		Reverse Stand-Off Voltage	Breakdown Voltage NIN.@I_T	Breakdown Voltage MAX.@I_T	Test Current	Maximum Clamping Voltage @I_{PP}	Peak Pulse Current	Reverse Leakage @V_{RWM}
UNT-POLAR	BI-POLAR	V_{RWM}(V)	$V_{BR\ MIN.}$(V)	$V_{BR\ MAX.}$(V)	I_T(mA)	V_C(V)	I_{PP}(A)	I_R(μA)
1.5KE30A	1.5KE30CA	25.60	28.50	31.50	1	41.4	36.7	1
1.5KE33A	1.5KE33CA	28.20	31.40	34.70	1	45.7	33.3	1
1.5KE36A	1.5KE36CA	30.80	34.20	37.80	1	49.9	30.5	1
1.5KE39A	1.5KE39CA	33.30	37.10	41.00	1	53.9	28.2	1
1.5KE43A	1.5KE43CA	36.80	40.90	45.20	1	59.3	25.6	1
1.5KE47A	1.5KE47CA	40.20	44.70	49.40	1	64.8	23.5	1
1.5KE51A	1.5KE51CA	43.60	48.50	53.60	1	70.1	21.7	1
1.5KE56A	1.5KE56CA	47.80	53.20	58.80	1	77.0	19.7	1
1.5KE62A	1.5KE62CA	53.00	58.90	65.10	1	85.0	17.9	1
1.5KE68A	1.5KE68CA	58.10	64.60	71.40	1	92.0	16.5	1
1.5KE75A	1.5KE75CA	64.10	71.30	78.80	1	103.0	14.8	1
1.5KE82A	1.5KE82CA	70.10	77.90	86.10	1	113.0	13.5	1
1.5KE91A	1.5KE91CA	77.80	86.50	95.50	1	125.0	12.2	1
1.5KE100A	1.5KE100CA	85.50	95.00	105.00	1	137.0	11.1	1
1.5KE110A	1.5KE110CA	94.00	105.00	116.00	1	152.0	10.0	1
1.5KE120A	1.5KE120CA	102.00	114.00	126.00	1	165.0	9.2	1
1.5KE130A	1.5KE130CA	111.00	124.00	137.00	1	179.0	8.5	1
1.5KE150A	1.5KE150CA	128.00	143.00	158.00	1	207.0	7.3	1
1.5KE160A	1.5KE160CA	136.00	152.00	168.00	1	219.0	6.9	1
1.5KE170A	1.5KE170CA	145.00	162.00	179.00	1	234.0	6.5	1
1.5KE180A	1.5KE180CA	154.00	171.00	189.00	1	246.0	6.2	1
1.5KE200A	1.5KE200CA	171.00	190.00	210.00	1	274.0	5.5	1
1.5KE220A	1.5KE220CA	185.00	209.00	231.00	1	328.0	4.6	1
1.5KE250A	1.5KE250CA	214.00	237.00	263.00	1	344.0	4.4	1
1.5KE300A	1.5KE300CA	256.00	285.00	315.00	1	414.0	3.7	1
1.5KE350A	1.5KE350CA	300.00	332.00	368.00	1	482.0	3.2	1
1.5KE400A	1.5KE400CA	342.00	380.00	420.00	1	548.0	2.8	1
1.5KE440A	1.5KE440CA	376.00	418.00	462.00	1	602.0	2.5	1
1.5KE480A	1.5KE480CA	408.00	456.00	504.00	1	658.0	2.3	1
1.5KE510A	1.5KE510CA	434.00	485.00	535.00	1	698.0	2.1	1
1.5KE530A	1.5KE530CA	450.00	503.50	556.50	1	725.0	2.1	1
1.5KE540A	1.5KE540CA	459.00	513.00	567.00	1	740.0	2.0	1
1.5KE550A	1.5KE550CA	467.00	522.50	577.50	1	760.0	2.0	1

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

RATINGS AND CHARACTERISTIC CURVES (TA=25℃ unless otherwise noted)

Figure 1 - Peak Pulse Power Rating Curve

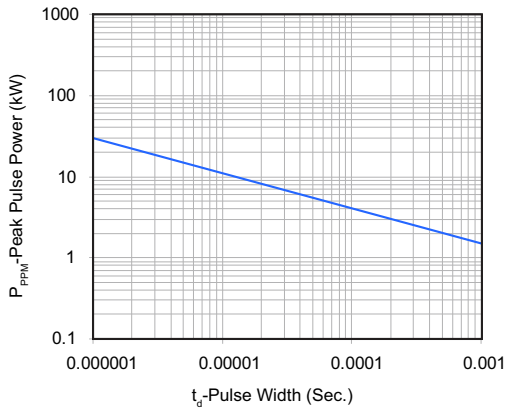


Figure 2 - Pulse Derating Curve

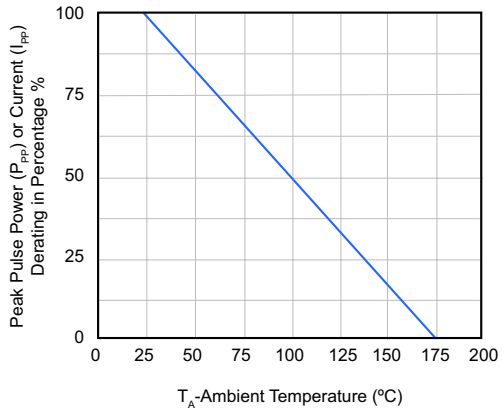


Figure 3 - Pulse Waveform

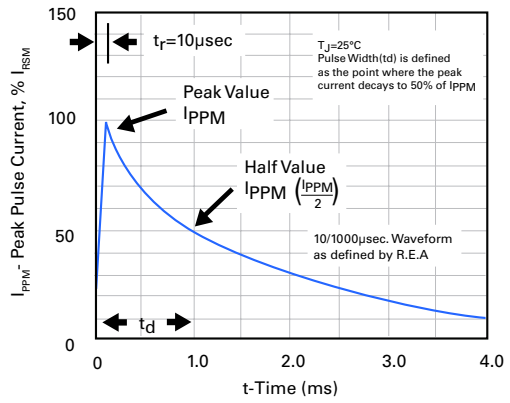


Figure 4 - Typical Junction Capacitance

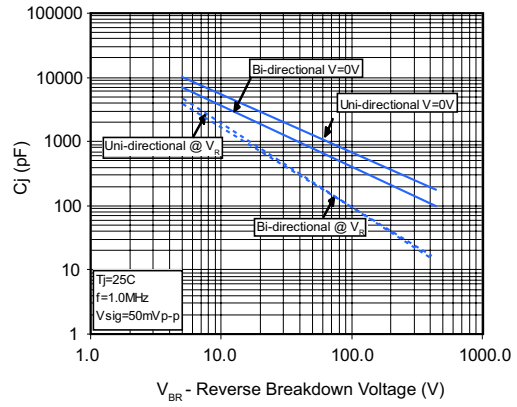


Figure 5 - Steady State Power Dissipation Derating Curve

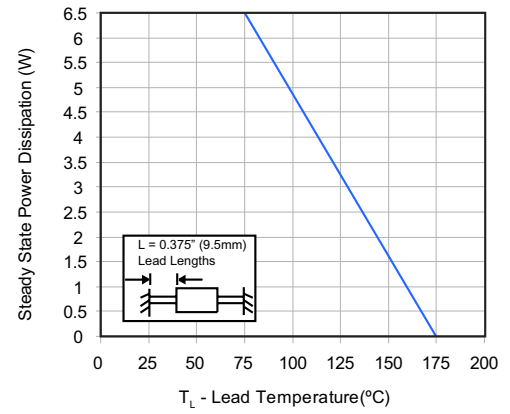


Figure 6 - Maximum Non-Repetitive Forward Surge Current Uni-Directional Only