

FEATURES

- Glass passivated junction.
- 1500W Peak Pulse Power capability at 1.0 ms.
- Excellent clamping capability.
- Low incremental surge resistance.
- Fast response time; typically less than 1.0 ps from 0 volts to BV for unidirectional and 5.0 ns for bidirectional.
- Typical I_R less than 1.0 μ A above 10V.



DO-201AE

MECHANICAL DATA

- Case: Molded plastic
- Lead: Pure tin plated lead free, solderable per MIL-STD-202, Method 208.
- Polarity : Color band denotes cathode except bipolar.
- Weight : 0.968 gram.

DEVICES FOR BIPOLAR APPLICATIONS

- Bidirectional types use CA suffix.
- Electrical Characteristics apply in both directions.

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

Type Number	Symbol	Value	Units
Peak Power Dissipation at $T_A = 25^\circ\text{C}$, $T_p = 1\text{ms}$ (Note 1)	P_{PPK}	Minimum 1500	Watts
Steady State Power Dissipation at $T_L = 75^\circ\text{C}$ Lead Lengths 0.375 Inch 9.5mm (Note 2)	P_D	5.0	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) (Note 3)	I_{FSM}	200	Amps
Maximum Instantaneous Forward Voltage at 100A for Unidirectional Only (Note 4)	V_F	3.5 / 5.0	Volts
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 175	$^\circ\text{C}$

Notes: Notes: 1. Non-repetitive current pulse and derated above $T_A = 25^\circ\text{C}$.

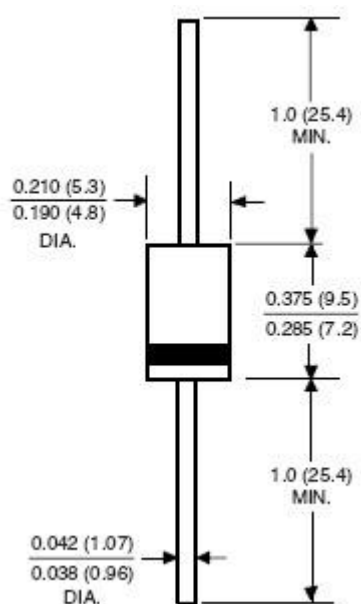
2. Mounted on copper pad area of 1.6 x 1.6 inch (40 x 40mm) per.

3. 8.3ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minutes maximum.

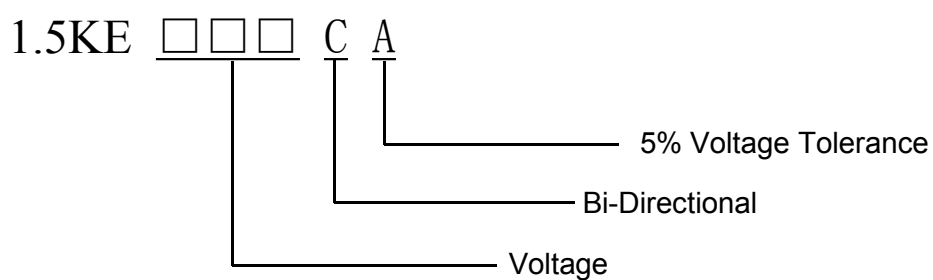
4. $V_F = 3.5\text{V}$ for devices of $V_{BR} \leq 200\text{V}$ and $V_F = 5.0\text{V}$ maximum for devices of $V_{BR} > 200\text{V}$.

PACKAGE DIMENSIONS

DO-201AE



ORDERING INFORMATION



PACKAGING

Part Number	Component Package	Quantity
1.5KExxxA/CA	DO-201AE	1000

ELECTRICAL CHARACTERISTICS

1.5KE DEVICES	REVERSE STAND-OFF VOLTAGE $V_{RWM}(V)$	BREAKDOWN VOLTAGE Min. @ I_T V_{BR} Min. (V)	BREAKDOWN VOLTAGE Max. @ I_T V_{BR} Max. (V)	TEST CURRENT $I_T(mA)$	MAXIMUM CLAMPING VOLTAGE @ I_{pp} $V_C(V)$	PEAK PULSE CURRENT $I_{pp}(A)$	REVERSE LEAKAGE @ V_{RWM} $I_R(\mu A)$
1.5KE6.8CA/A	5.80	6.45	7.14	10	10.5	144.8	1000
1.5KE7.5CA/A	6.40	7.13	7.88	10	11.3	134.5	500
1.5KE8.2CA/A	7.02	7.79	8.61	10	12.1	125.6	200
1.5KE9.1CA/A	7.78	8.65	9.55	1	13.4	113.4	50
1.5KE10CA/A	8.55	9.50	10.50	1	14.5	104.8	10
1.5KE11CA/A	9.40	10.50	11.60	1	15.6	97.4	5
1.5KE12CA/A	10.20	11.40	12.60	1	16.7	91.0	5
1.5KE13CA/A	11.10	12.40	13.70	1	18.2	83.5	1
1.5KE15CA/A	12.80	14.30	15.80	1	21.2	71.7	1
1.5KE16CA/A	13.60	15.20	16.80	1	22.5	67.6	5
1.5KE18CA/A	15.30	17.10	18.90	1	25.2	60.3	5
1.5KE20CA/A	17.10	19.00	21.00	1	27.7	54.9	1
1.5KE22CA/A	18.80	20.90	23.10	1	30.6	49.7	1
1.5KE24CA/A	20.50	22.80	25.20	1	33.2	45.8	1
1.5KE27CA/A	23.10	25.70	28.40	1	37.5	40.5	1
1.5KE30CA/A	25.60	28.50	31.50	1	41.4	36.7	1
1.5KE33CA/A	28.20	31.40	34.70	1	45.7	33.3	1
1.5KE36CA/A	30.80	34.20	37.80	1	49.9	30.5	1
1.5KE39CA/A	33.30	37.10	41.00	1	53.9	28.2	1
1.5KE43CA/A	36.80	40.90	45.20	1	59.3	25.6	1
1.5KE47CA/A	40.20	44.70	49.40	1	64.8	23.5	1
1.5KE51CA/A	43.60	48.50	53.60	1	70.1	21.7	1
1.5KE56CA/A	47.80	53.20	58.80	1	77.0	19.7	1
1.5KE62CA/A	53.00	58.90	65.10	1	85.0	17.9	1
1.5KE68CA/A	58.10	64.60	71.40	1	92.0	16.5	1
1.5KE75CA/A	64.10	71.30	78.80	1	103.0	14.8	1
1.5KE82CA/A	70.10	77.90	86.10	1	113.0	13.5	1
1.5KE91CA/A	77.80	86.50	95.50	1	125.0	12.2	1
1.5KE350CA/A	300.00	332.00	368.00	1	482.0	3.2	1
1.5KE400CA/A	342.00	380.00	420.00	1	548.0	2.8	1
1.5KE440CA/A	376.00	418.00	462.00	1	602.0	2.5	1
1.5KE480CA/A	408.0	456.0	504.0	1	658.0	2.3	1

TYPICAL CHARACTERISTICS

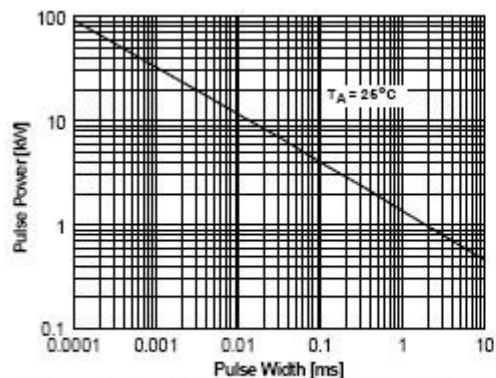


Figure 1. Peak Pulse Power Rating Curve

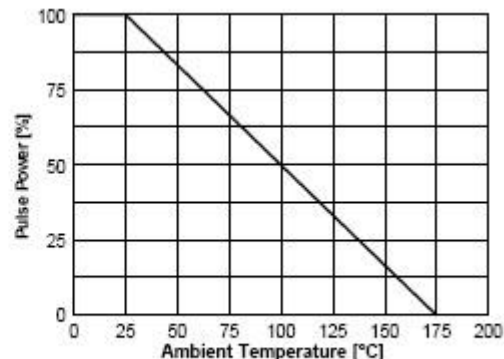


Figure 2. Pulse Derating Curve

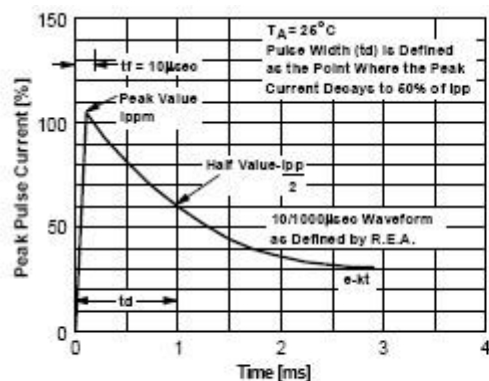


Figure 3. Pulse Waveform

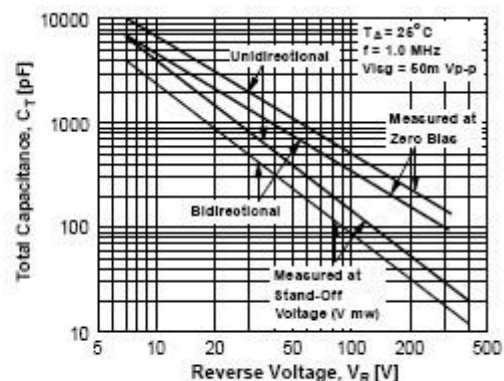


Figure 4. Total Capacitance

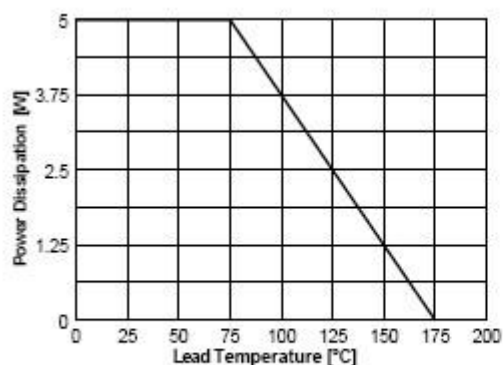


Figure 5. Steady State Power Derating Curve

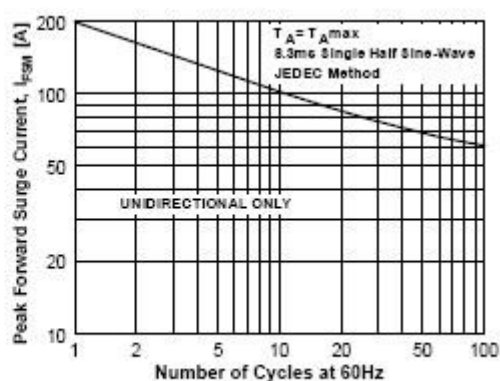


Figure 6. Non-Repetitive Surge Current