

RoHS compliant

A suffix of "-C" specifies halogen & lead-free

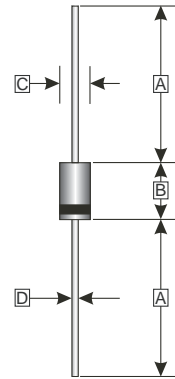
FEATURES

- 1500 Watts Surge Capability at 1ms.
- Excellent clamping capability.
- Low zener impedance.
- Fast response time : Typically less than 1.0ps from 0 volt to BV min.
- Typical I_R less than 1 A above 10 V
- High temperature soldering guaranteed : 260°C / 10 seconds / .375" (9.5mm) lead length, 5lbs.(2.3kg) tension.

MECHANICAL DATA

- Case: : Molded plastic.
- Epoxy : UL 94V-0 rate flame retardant.
- Lead : Axial leads, solderable per MIL-STD-202, method 208 guaranteed.
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 1.20 grams (Approximate)

DO-201



REF.	Millimeter	
	Min.	Max.
A	27.2	27.8
B	7.40	7.60
C	4.40	4.60
D	1.15	1.25

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz. resistive or inductive load. For capacitive load, derate current by 20%.

CHARACTERISTIC	SYMBOL	VALUE	UNITS
Peak Power Disipation at $T_A=25^\circ\text{C}$, $T_P=1\text{ms}$ ⁽¹⁾	P_{PK}	Minimum 1500	W
Steady State Power Dissipation at $T_L=75^\circ\text{C}$ Lead Length .375" (9.5mm) ⁽²⁾	P_D	6.5	W
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave superimposed on rated load (JEDEC method) ⁽³⁾	I_{FSM}	200.0	A
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

Notes:

1. Non-repetitive current pulse per Fig. 3 and derated above $T_A=25^\circ\text{C}$ per Fig. 2.
2. Mounted on Copper Pad area of 0.8" X 0.8" (20mm X 20mm) per Fig. 5.
3. 8.3ms single half sine-wave, duty cycle = 4 pulses per minute maximum.

DEVICES FOR BIPOLAR APPLICATIONS

1. For Bidirectional use C or CA Suffix for types 1.5KE6.8 thru 1.5KE440.
2. Electrical characteristics apply in both directions.

TYPICAL CHARACTERISTICS

FIG.1-PEAK PULSE POWER DERATING CURVE

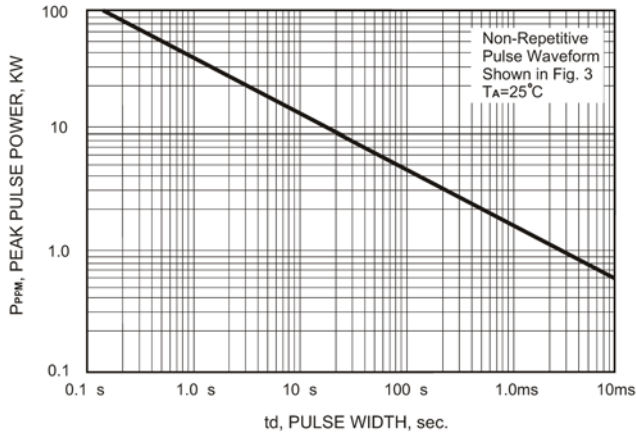


FIG.2-PULSE DERATING CURVE

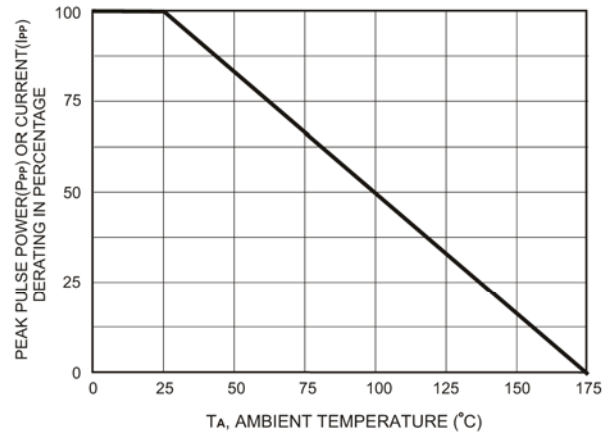


FIG.3-PULSE WAVE FORM

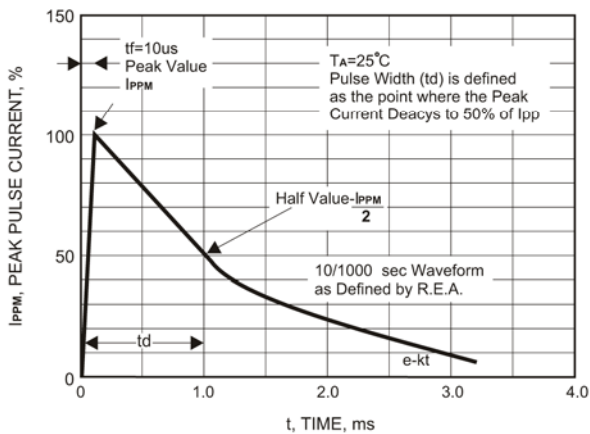


FIG.4-TYPICAL JUNCTION CAPACITANCE

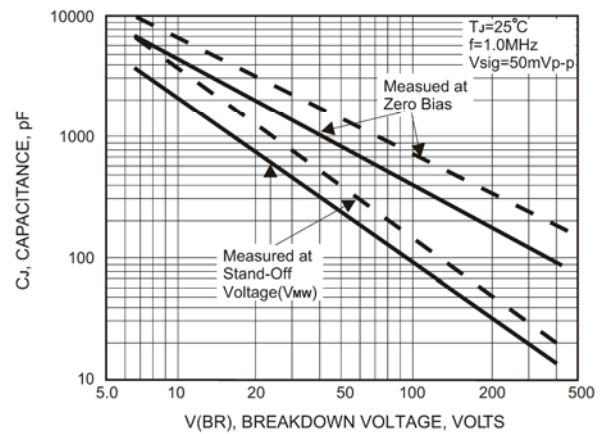


FIG.5-STEADY STATE POWER DERATING CURVE

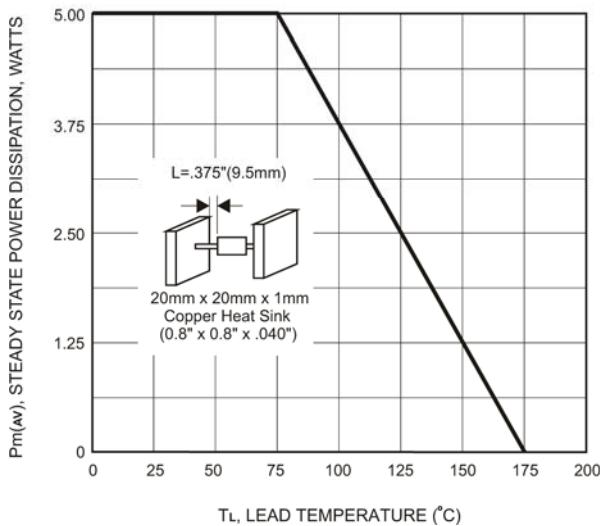
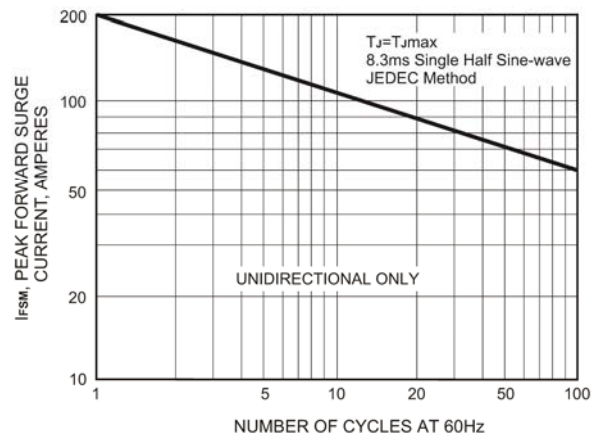


FIG.6-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT, UNIDIRECTIONAL



ELECTRICAL CHARACTERISTIC ($T_A = 25^\circ\text{C}$ unless otherwise specified)

PART NUMBER		REVERSE STANDOFF VOLTAGE	BREAKDOWN VOLTAGE MIN@ I_T	BREAKDOWN VOLTAGE MAX@ I_T	TEST CURRENT	MAX CLAMPING VOLTAGE $V_C@I_{PP}$	PEAK PULSE CURRENT	REVERSE LEAKAGE $I_R@V_{RRM}$
UNI DIRECTIONAL		V_{RRM} V	V_{BR} V	V_{BR} V	I_T mA	V_C V	I_{PP} A	I_R uA
1.5KE6.8A	1.5KE6.8CA	5.80	6.45	7.14	10.0	10.5	144.8	1000
1.5KE7.5A	1.5KE7.5CA	6.40	7.13	7.88	10.0	11.3	134.5	500
1.5KE8.2A	1.5KE8.2CA	7.02	7.79	8.61	10.0	12.1	125.6	200
1.5KE9.1A	1.5KE9.1CA	7.78	8.65	9.50	1.0	13.4	113.4	50
1.5KE10A	1.5KE10CA	8.55	9.50	10.50	1.0	14.5	104.8	10
1.5KE11A	1.5KE11CA	9.40	10.50	11.60	1.0	15.6	97.4	5
1.5KE12A	1.5KE12CA	10.20	11.40	12.60	1.0	16.7	91.0	5
1.5KE13A	1.5KE13CA	11.10	12.40	13.70	1.0	18.2	83.5	5
1.5KE15A	1.5KE15CA	12.80	14.30	15.80	1.0	21.2	71.7	5
1.5KE16A	1.5KE16CA	13.60	15.20	16.80	1.0	22.5	67.6	5
1.5KE18A	1.5KE18CA	15.30	17.10	18.90	1.0	25.2	60.3	5
1.5KE20A	1.5KE20CA	17.10	19.00	21.00	1.0	27.7	54.9	5
1.5KE22A	1.5KE22CA	18.80	20.90	23.10	1.0	30.6	49.7	5
1.5KE24A	1.5KE24CA	20.50	22.80	25.20	1.0	33.2	45.8	5
1.5KE27A	1.5KE27CA	23.10	25.70	28.40	1.0	37.5	40.5	5
1.5KE30A	1.5KE30CA	25.60	28.50	31.50	1.0	41.4	36.7	5
1.5KE33A	1.5KE33CA	28.20	31.40	34.70	1.0	45.7	33.3	5
1.5KE36A	1.5KE36CA	30.80	34.20	37.80	1.0	49.9	30.5	5
1.5KE39A	1.5KE39CA	33.30	37.10	41.00	1.0	53.9	28.2	5
1.5KE43A	1.5KE43CA	36.80	40.90	45.20	1.0	59.3	25.6	5
1.5KE47A	1.5KE47CA	40.20	44.70	49.40	1.0	64.8	23.5	5
1.5KE51A	1.5KE51CA	43.60	48.50	53.60	1.0	70.1	21.7	5
1.5KE56A	1.5KE56CA	47.80	53.20	58.80	1.0	77.0	19.7	5
1.5KE62A	1.5KE62CA	53.00	58.90	65.10	1.0	85.0	17.9	5
1.5KE68A	1.5KE68CA	58.10	64.60	71.40	1.0	92.0	16.5	5
1.5KE75A	1.5KE75CA	64.10	71.30	78.80	1.0	103.0	14.8	5
1.5KE82A	1.5KE82CA	70.10	77.90	86.10	1.0	113.0	13.5	5
1.5KE91A	1.5KE91CA	77.80	86.50	95.50	1.0	125.0	12.2	5
1.5KE100A	1.5KE100CA	85.50	95.00	105.00	1.0	137.0	11.1	5
1.5KE110A	1.5KE110CA	94.00	105.00	116.00	1.0	152.0	10.0	5
1.5KE120A	1.5KE120CA	102.00	114.00	126.00	1.0	165.0	9.2	5
1.5KE130A	1.5KE130CA	111.00	124.00	137.00	1.0	179.0	8.5	5
1.5KE150A	1.5KE150CA	128.00	143.00	158.00	1.0	207.0	7.3	5
1.5KE160A	1.5KE160CA	136.00	152.00	168.00	1.0	219.0	6.9	5
1.5KE170A	1.5KE170CA	145.00	162.00	179.00	1.0	234.0	6.5	5
1.5KE180A	1.5KE180CA	154.00	171.00	189.00	1.0	246.0	6.2	5
1.5KE200A	1.5KE200CA	171.00	190.00	210.00	1.0	274.0	5.5	5
1.5KE220A	1.5KE220CA	185.00	209.00	231.00	1.0	328.0	4.6	5
1.5KE250A	1.5KE250CA	214.00	237.00	263.00	1.0	344.0	4.4	5
1.5KE300A	1.5KE300CA	256.00	285.00	315.00	1.0	414.0	3.7	5
1.5KE350A	1.5KE350CA	300.00	332.00	368.00	1.0	482.0	3.2	5
1.5KE400A	1.5KE400CA	342.00	380.00	420.00	1.0	548.0	2.8	5
1.5KE440A	1.5KE440CA	376.00	418.00	462.00	1.0	600.0	2.5	5

Notes:

1. Suffix "A" denotes 5% tolerance device.
2. For bi-Directional devices having VR of 10volt and under, the IR limit is double