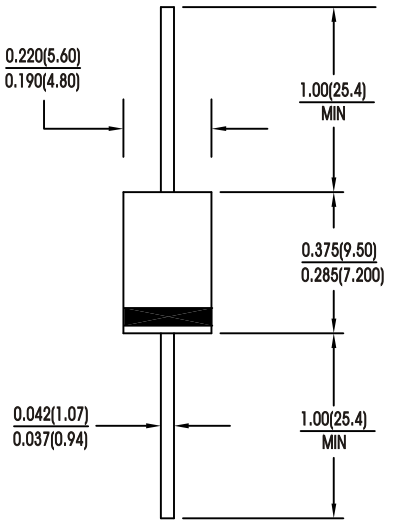
LCE1.5KE6.5(A) THRU LCE1.5KE28(A)

LOW CAPACITANCE TRANSIENT VOLTAGE SUPPRESSOR
VOLTAGE -6.8 TO 28 VOLTS 1500 WATT PEAK POWER

DO-201AE

FEATURES:

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- 1500W peak pulse power capability with 10/1000us waveform,repetition rate(duty cycle):0.05%
- Excellent clamping capability
- Low incremental surge resistance
- Fast response time : typically less than 5.0ns from 0 volts to $V_{(BR)}$
- Ideal for data line applications
- High temperature soldering duaranteed : 265℃/10second,0.375"(9.5mm) lead length 5lbs.(2.3kg) tension



MECHANICAL DATA

Case: Molded plastic body over a passivated junction
Terminals: Plated axial leads, Solderable per MIL-STD-750, Method 2026
Polarity: Cathode band denotes positive end(cathode)
Mounting polarity:Any
Weight:1.2 grams

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Characteristic	Symbol	VALUE	Units
Minimum peak power dissipation with a 10/ 1000us	P_{PPM}	1500	W
Maximum steady state power disspipation T_L=75℃ with at lead length 0.375"(9.5mm)	$P_{M(AV)}$	6.5	Watts
Maximum peak pulse surge current with a 10/1000us waveform(fig.3,note1)	I_{PPM}	SEE TABLE 1	Amps
Maximun inverse blocking leaksge current at 75V	I_R	1.0	mA
Operating and Storage temperature range	T_J, Tstg	-65 to+175	℃

NOTE:(1)Non-repetitive current pulse,per fig.3 and derated above T_A=25℃ fig.2

FIGURE 1-PEAK PULSE POWER RATING VERSUS PULSETIME CURVE

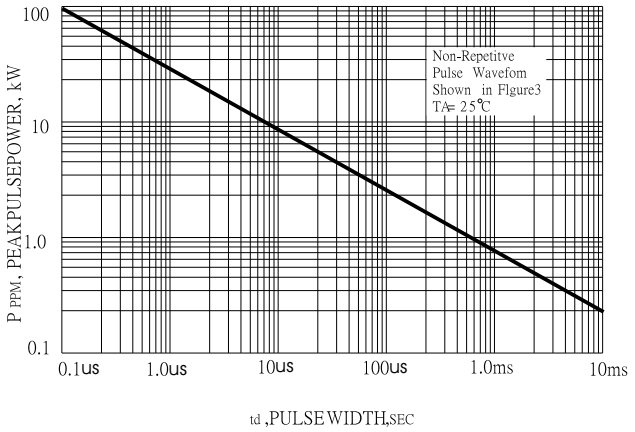


FIGURE2-PULSE DERATING CURVE

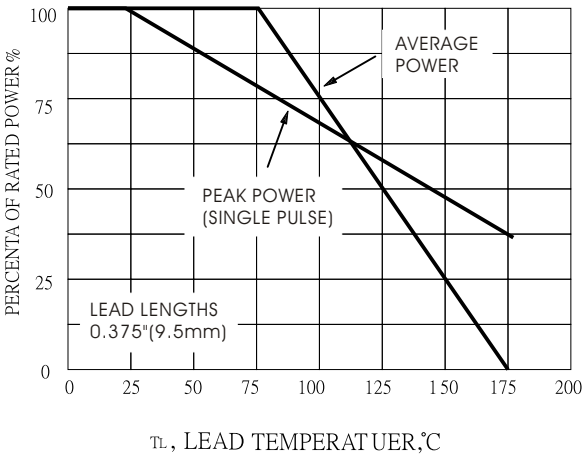
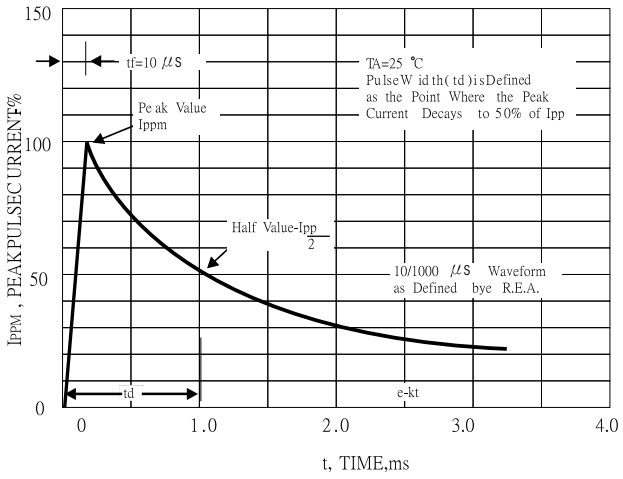
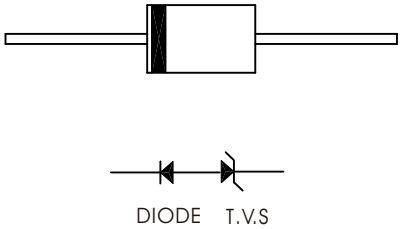


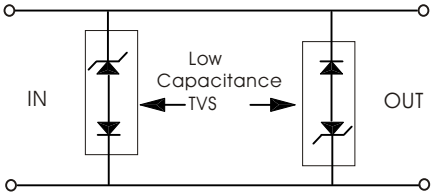
FIGURE 3-PULSE WAVEFORM



NOTE: EQUIVALENT CIRCUIT



FIGUE 4-AC LINE PROTECTION APPLICATION



APPLICATION NOTE : Devices must be used with two units in parallel, opposite in polarity as shown in circuit for AC signal line protection

TABLE 1 **Table 1**

Device Type	Breakdown V_{BR} Voltage at I_T(Voltage)		Test Current I_T	Working Peak Reverse Voltage V_{RWM}	Maximun Reverse Leakage at V_{RWM} I_R(μA)	Maximun Peak Pulse Current I_{PPM}	Maximmum Clamping Voltage V_C	Maximun Junction Capacitance at 0 Volts	Miniimun Peak Inverse Blocking Voltage V_{PIB}
	Min	Max	mA	Volts	μA	Amps	Volts	P_F	Volts
LCE1.5KE6.5	7.22	8.82	10	6.50	1000	100	12.30	100	100
LCE1.5KE6.5A	7.22	7.98	10	6.50	1000	100	11.20	100	100
LCE1.5KE7.0	7.78	9.51	10	7.00	500	100	13.30	100	100
LCE1.5KE7.0A	7.78	8.60	10	7.00	500	100	12.00	100	100
LCE1.5KE7.5	8.33	10.20	10	7.50	250	100	14.30	100	100
LCE1.5KE7.5A	8.33	9.21	10	7.50	250	100	12.90	100	100
LCE1.5KE8.0	8.89	10.90	1.0	8.00	100	100	15.00	100	100
LCE1.5KE8.0A	8.89	9.83	1.0	8.00	100	100	13.60	100	100
LCE1.5KE8.5	9.44	11.50	1.0	8.50	50.0	94.0	15.90	100	100
LCE1.5KE8.5A	9.44	10.40	1.0	8.50	50.0	100	14.40	100	100
LCE1.5KE9.0	10.0	12.20	1.0	9.00	10.0	89.0	16.90	100	100
LCE1.5KE9.0A	10.0	11.10	1.0	9.00	10.0	97.0	15.40	100	100
LCE1.5KE10	11.1	13.60	1.0	10.0	5.00	80.0	18.80	100	100
LCE1.5KE10A	11.1	12.30	1.0	10.0	5.00	88.0	17.00	100	100
LCE1.5KE11	12.2	14.90	1.0	11.0	5.00	74.0	20.10	100	100
LCE1.5KE11A	12.2	13.50	1.0	11.0	5.00	82.0	18.20	100	100
LCE1.5KE12	13.3	16.30	1.0	12.0	5.00	68.0	22.00	100	100
LCE1.5KE12A	13.3	14.70	1.0	12.0	5.00	75.0	19.90	100	100
LCE1.5KE13	14.4	17.60	1.0	13.0	5.00	63.0	23.80	100	100
LCE1.5KE13A	14.4	15.90	1.0	13.0	5.00	70.0	21.50	100	100
LCE1.5KE14	15.6	19.10	1.0	14.0	5.00	58.0	25.80	100	100
LCE1.5KE14A	15.6	17.20	1.0	14.0	5.00	65.0	23.20	100	100
LCE1.5KE15	16.7	20.40	1.0	15.0	5.00	56.0	26.90	100	100
LCE1.5KE15A	16.7	18.50	1.0	15.0	5.00	61.0	24.40	100	100
LCE1.5KE16	17.8	21.80	1.0	16.0	5.00	52.0	28.80	100	100
LCE1.5KE16A	17.8	19.70	1.0	16.0	5.00	57.0	26.00	100	100
LCE1.5KE17	18.9	23.10	1.0	17.0	5.00	49.0	30.50	100	100
LCE1.5KE17A	18.9	20.90	1.0	17.0	5.00	54.0	27.60	100	100
LCE1.5KE18	20.0	24.40	1.0	18.0	5.00	46.0	32.20	100	100
LCE1.5KE18A	20.0	22.10	1.0	18.0	5.00	51.0	29.20	100	100
LCE1.5KE20	22.2	27.10	1.0	20.0	5.00	42.0	35.80	100	100
LCE1.5KE20A	22.2	24.50	1.0	20.0	5.00	46.0	32.40	100	100
LCE1.5KE22	24.4	29.80	1.0	22.0	5.00	38.0	39.40	100	100
LCE1.5KE22A	24.4	26.90	1.0	22.0	5.00	42.0	35.50	100	100
LCE1.5KE24	26.7	32.60	1.0	24.0	5.00	35.0	43.00	100	100
LCE1.5KE24A	26.7	29.50	1.0	24.0	5.00	39.0	38.90	100	100
LCE1.5KE26	28.9	35.30	1.0	26.0	5.00	32.0	46.60	100	100
LCE1.5KE26A	28.9	31.90	1.0	26.0	5.00	36.0	42.10	100	100
LCE1.5KE28	31.1	38.00	1.0	28.0	5.00	30.0	50.10	100	100
LCE1.5KE28A	31.1	34.40	1.0	28.0	5.00	33.0	45.50	100	100