

**LC6.5  
thru  
LC170A  
LOW CAPACITANCE**

**FEATURES**

This series employs a standard TAZ in series with a rectifier with the same transient capabilities as the TAZ. The rectifier is used to reduce the effective capacitance up thru 100 MHz with a minimum amount of signal loss or deformation. The low capacitance TAZ may be applied directly across the signal line to prevent induced transients from lightning, power interruptions, or static discharge. If bipolar transient capability is required, two low-capacitance TAZ must be used in parallel, opposite in polarity for complete AC protection.

- 1500 WATTS OF PEAK PULSE POWER DISSIPATION AT 25°C AND 10 x 1000  $\mu$ s
- AVAILABLE IN RANGES FROM 6.5-200V
- LOW CAPACITANCE AC SIGNAL PROTECTION

**MAXIMUM RATINGS**

1500 Watts of Peak Pulse Power dissipation at 25°C  
 $t_{clamping}$  (0 volts to  $V_{(BR)}$  min): Less than  $5 \times 10^{-9}$  seconds  
 Operating and Storage temperatures: -65° to +175°C  
 Steady State power dissipation: 1.0 W  
 Repetition Rate (duty cycle): .01%

**ELECTRICAL CHARACTERISTICS**

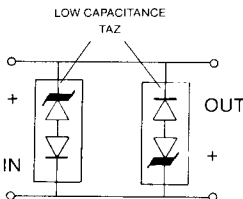
Clamping Factor: 1.4 @ Full Rated power  
 1.30 @ 50% Rated power

Clamping Factor: The ratio of the actual  $V_C$  (Clamping Voltage) to the actual  $V_{(BR)}$  (Breakdown Voltage) as measured on a specific device.

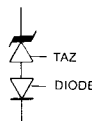
**NOTE:** When pulse testing, test in Avalanche direction. DO NOT pulse in forward direction.

**APPLICATION**

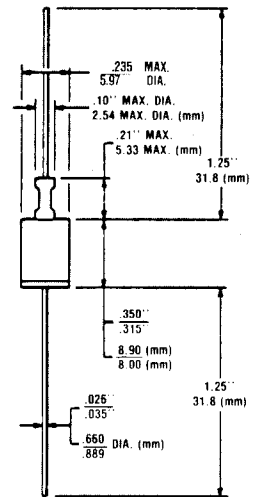
Devices must be used with two units in parallel, opposite in polarity, as shown in circuit for AC Signal Line protection:



SCHEMATIC



**TRANSIENT  
ABSORPTION  
ZENER**



**MECHANICAL  
CHARACTERISTICS**

CASE: DO-13, welded, hermetically sealed metal and glass.

FINISH: All external surfaces are corrosion resistant and leads solderable.

POLARITY: Cathode connected to case and marked.

WEIGHT: 1.4 grams (Appx.)

MOUNTING POSITION: Any

# LC6.5 thru LC170A

## ELECTRICAL CHARACTERISTICS @ 25°C

MODULE PART NUMBER	REVERSE STAND OFF VOLTAGE V <sub>RM</sub>		BREAKDOWN VOLTAGE V <sub>(BR)</sub>		@ If mA	MAXIMUM REVERSE LEAKAGE I <sub>RS</sub>		MAXIMUM CLAMPING VOLTAGE V <sub>CP</sub>		MAXIMUM PEAK PULSE CURRENT I <sub>PM</sub>		CAPACI- TANCE @ 0 pF	V <sub>RM</sub> INVERSE BLOCKING VOLTAGE VOLTS	I <sub>RM</sub> INVERSE BLOCKING CURRENT mA	V <sub>PM</sub> PEAK INVERSE BLOCKING VOLTAGE VOLTS
	Min.	Max.	Min.	Max.		V <sub>RM</sub> mA	I <sub>RS</sub> μA	V <sub>CP</sub> VOLTS	I <sub>PM</sub> 10 × 1000 AMPS						
LC6.5	65	722	822	10	1000	12.3	100	100	75	1	100				
LC6.5A	65	722	798	10	1000	11.2	100	100	75	1	100				
LC7.0	70	778	9.51	10	500	13.3	100	100	75	1	100				
LC7.0A	70	778	8.80	10	500	12.0	100	100	75	1	100				
LC7.5	75	833	10.2	10	250	14.3	100	100	75	1	100				
LC7.5A	75	833	9.21	10	250	12.9	100	100	75	1	100				
LC8.0	80	889	10.9	1	100	15.0	100	100	75	1	100				
LC8.0A	80	889	9.83	1	100	13.6	100	100	75	1	100				
LC8.5	85	944	11.5	1	50	15.9	94	100	75	1	100				
LC8.5A	85	944	10.4	1	50	14.4	100	100	75	1	100				
LC9.0	90	10.0	12.2	1	10	16.9	89	100	75	1	100				
LC9.0A	90	10.0	11.1	1	10	15.4	97	100	75	1	100				
LC10	10	11.1	13.6	1	5	18.8	80	100	75	1	100				
LC10A	10	11.1	12.3	1	5	17.0	88	100	75	1	100				
LC11	11	12.2	14.9	1	5	20.1	74	100	75	1	100				
LC11A	11	12.2	13.5	1	5	18.2	82	100	75	1	100				
LC12	12	13.3	16.3	1	5	22.0	68	100	75	1	100				
LC12A	12	13.3	14.7	1	5	19.9	75	100	75	1	100				
LC13	13	14.4	17.6	1	5	23.8	63	100	75	1	100				
LC13A	13	14.4	15.9	1	5	21.5	70	100	75	1	100				
LC14	14	15.6	19.1	1	5	25.8	58	100	75	1	100				
LC14A	14	15.6	17.2	1	5	23.2	65	100	75	1	100				
LC15	15	16.7	20.4	1	5	26.9	56	100	75	1	100				
LC15A	15	16.7	18.5	1	5	24.4	61	100	75	1	100				
LC16	16	17.8	21.8	1	5	28.8	52	100	75	1	100				
LC16A	16	17.8	19.7	1	5	26.0	57	100	75	1	100				
LC17	17	18.9	23.1	1	5	30.5	49	100	75	1	100				
LC17A	17	18.9	20.9	1	5	27.6	54	100	75	1	100				
LC18	18	20.0	24.4	1	5	32.2	46	100	75	1	100				
LC18A	18	20.0	22.1	1	5	29.9	51	100	75	1	100				
LC20	20	22.2	27.1	1	5	35.8	42	100	75	1	100				
LC20A	20	22.2	24.5	1	5	32.4	46	100	75	1	100				
LC22	22	24.4	29.8	1	5	39.4	38	100	75	1	100				
LC22A	22	24.4	26.9	1	5	35.5	42	100	75	1	100				
LC24	24	26.7	32.6	1	5	43.0	35	100	75	1	100				
LC24A	24	26.7	29.5	1	5	38.9	39	100	75	1	100				
LC26	26	28.9	35.3	1	5	46.6	32	100	75	1	100				
LC26A	26	28.9	31.9	1	5	42.1	36	100	75	1	100				
LC28	28	31.1	38.0	1	5	50.1	30	100	75	1	100				
LC28A	28	31.1	34.4	1	5	45.4	33	100	75	1	100				
LC30	30	33.3	40.7	1	5	53.5	28	100	75	1	100				
LC30A	30	33.3	36.8	1	5	48.4	31	100	75	1	100				
LC33	33	36.7	44.9	1	5	58.0	25.4	100	75	1	100				
LC33A	33	36.7	40.6	1	5	53.3	28.1	100	75	1	100				
LC36	36	40.0	48.9	1	5	64.3	23.3	100	75	1	100				
LC36A	36	40.0	44.2	1	5	58.1	25.8	100	75	1	100				
LC40	40	44.4	54.3	1	5	71.4	21.0	100	75	1	100				
LC40A	40	44.4	49.1	1	5	64.5	23.3	100	75	1	100				
LC43	43	47.8	58.4	1	5	76.7	19.5	100	150	1	200				
LC43A	43	47.8	52.8	1	5	69.4	21.6	100	150	1	200				
LC45	45	50.0	61.1	1	5	80.3	18.7	100	150	1	200				
LC45A	45	50.0	55.3	1	5	72.7	20.6	100	150	1	200				
LC48	48	53.3	65.1	1	5	85.5	17.5	100	150	1	200				
LC48A	48	53.3	58.9	1	5	77.4	19.4	100	150	1	200				
LC51	51	56.7	69.3	1	5	91.1	16.5	100	150	1	200				
LC51A	51	56.7	62.7	1	5	82.4	18.2	100	150	1	200				
LC54	54	60.0	73.3	1	5	98.3	15.6	100	150	1	200				
LC54A	54	60.0	66.3	1	5	87.1	17.2	100	150	1	200				
LC58	58	64.4	78.7	1	5	103.0	14.6	100	150	1	200				
LC58A	58	64.4	71.2	1	5	93.6	16.0	100	150	1	200				
LC60	60	66.7	81.5	1	5	107.0	14.0	90	150	1	200				
LC60A	60	66.7	73.7	1	5	96.8	15.5	90	150	1	200				
LC64	64	71.1	89.9	1	5	114.0	13.2	90	150	1	200				
LC64A	64	71.1	81.9	1	5	103.0	14.6	90	150	1	200				
LC70	70	77.8	95.1	1	5	125	12.0	90	150	1	200				
LC70A	70	77.8	86.0	1	5	113	13.3	90	150	1	200				
LC75	75	83.3	102.0	1	5	134	11.2	90	150	1	200				
LC75A	75	83.3	92.1	1	5	121	12.4	90	150	1	200				
LC80	80	88.7	108	1	5	142	10.6	90	150	1	200				
LC80A	80	88.7	98.0	1	5	129	11.6	90	150	1	200				
LC90	90	100	122	1	5	160	9.4	90	300	1	200				
LC90A	90	100	111	1	5	146	10.3	90	300	1	200				
LC100	100	111	136	1	5	179	8.4	90	300	1	200				
LC100A	100	111	123	1	5	162	9.3	90	300	1	200				
LC110	110	122	149	1	5	196	7.7	90	300	1	400				
LC110A	110	122	135	1	5	178	8.4	90	300	1	400				
LC120	120	133	163	1	5	214	7.0	90	300	1	400				
LC120A	120	133	147	1	5	193	7.8	90	300	1	400				
LC130	130	144	176	1	5	231	6.5	90	300	1	400				
LC130A	130	144	159	1	5	209	7.2	90	300	1	400				
LC150	150	167	204	1	5	288	5.6	90	300	1	400				
LC150A	150	167	185	1	5	243	6.2	90	300	1	400				
LC160	160	178	218	1	5	287	5.2	90	300	1	400				
LC160A	160	178	197	1	5	259	5.8	90	300	1	400				
LC170	170	189	231	1	5	304	4.9	90	300	1	400				
LC170A	170	189	209	1	5	275	5.4	90	300	1	400				

**NOTE 1:** TAZ are normally selected according to the reverse "Stand Off Voltage (V<sub>RM</sub>)" which should be equal to or greater than the DC or continuous peak operating voltage level.