

SANYO

No.3351A

LA8500, 8501-P**Tone Ringer****Applications**

- Telephones and other various types of consumer equipment.

Features and Functions

- Adjustable OSC frequency
- On-chip power supply control circuit with hysteresis prevents false triggering and rotary dial "chirps".
- Minimum number of external parts required
- Adjustable operation start voltage (LA8500)
- Adjustable operation start current (LA8501-P)

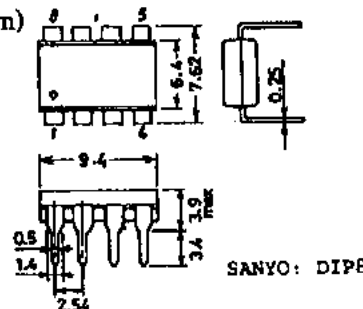
Maximum Ratings at Ta=25°C

		unit
Maximum Supply Voltage	V_{CC} max	30 V
Allowable Power Dissipation	P_d max	500 mW
Operating Temperature	T_{opr}	-20 to +75 °C
Storage Temperature	T_{stg}	-55 to +150 °C

Operating Conditions at Ta=25°C

Operating Conditions at Ta=25°C			min	typ	max	unit
Operating Voltage	Vopr				29	V
Operation Start	Vs1	(Note 1)	17	19	21	V
Supply Voltage						
Operation Sustain	Vsus	(Note 2)	10.5	12		V
Supply Voltage						
Operation Start	Is1	No load	1.4	3.3	4.2	mA
Current Dissipation						
Operation Sustain	Isus	No load		1.0		mA
Current Dissipation						
OSC Frequency (Note 3)	fL	C1=0.47uF, R1=165kohms	9	10	11	Hz
	fH1	C2=6800pF, R2=191kohms	461	512	563	Hz
	fH2	C2=6800pF, R2=191kohms	576	640	703	Hz
Output Voltage	H Level	VOH VCC=24V, IOH=-10mA, PIN 7=GND	20.0	21.5	22.5	V
	L Level	VOL VCC=24V, IOL=10mA, PIN 7=7V	0.7	1.0	2.0	V
Trigger Pin Operating	Vtrig	VCC=15V, Itrig=100uA	7.8	10	11.5	V
Voltage (LA8500)						

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Package Dimensions 3001B
(unit: mm)

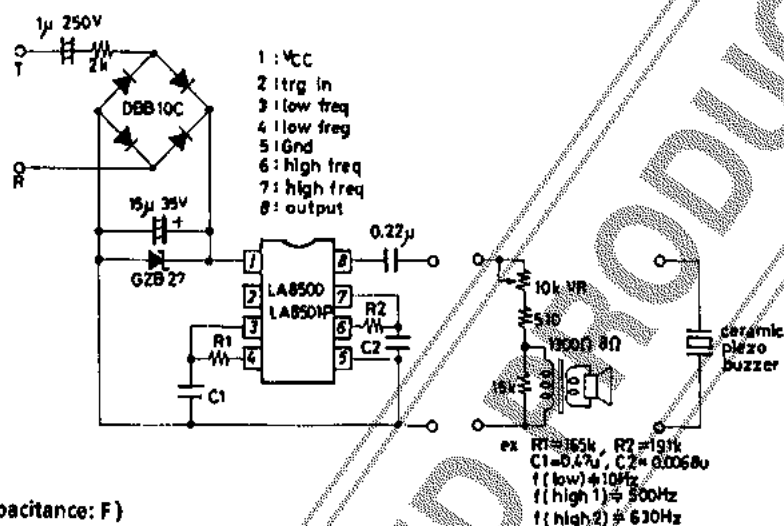
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Note 1: Operation start supply voltage (V_{si}) is the value of supply voltage required for the tone ringer to start oscillating.

Note 2: Operation sustain supply voltage (V_{sus}) is the value of supply voltage required for the tone ringer to maintain oscillation.

Note 3: OSC frequencies are: (1) $f_L = 1/1.234 \cdot R_1 \cdot C_1$
 (2) $f_{H1} = 1/1.515 \cdot R_2 \cdot C_2$
 (3) $f_{H2} = 1.24 \cdot f_{H1}$

Sample Application Circuit



Unit (resistance: Ω, capacitance: F)

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