

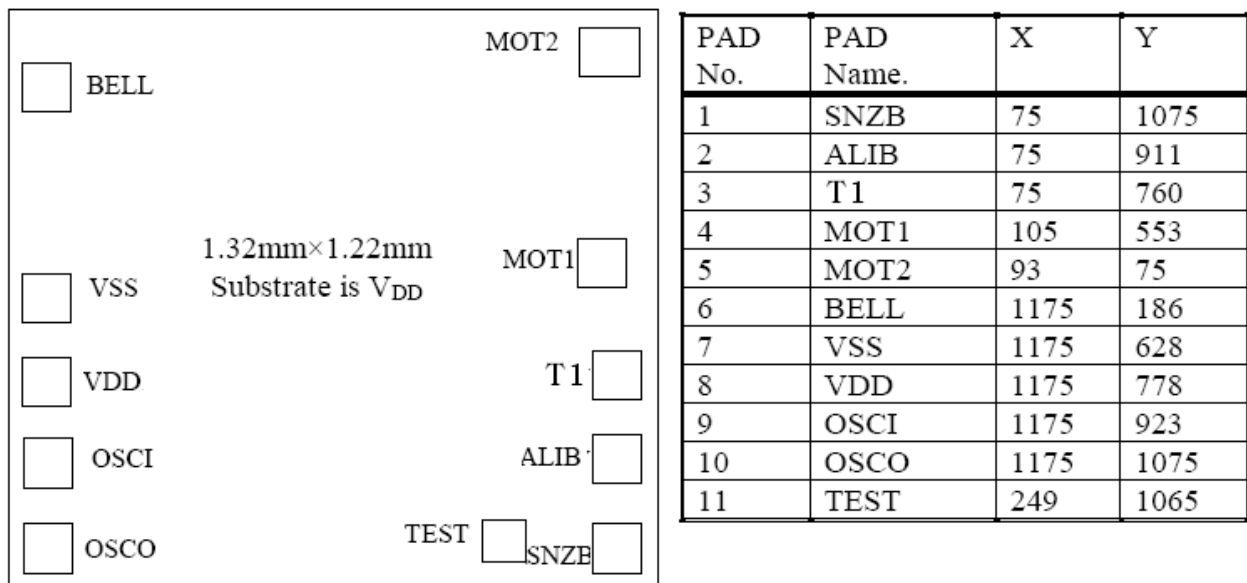
## Analog alarm clock with snooze

The **SDL1146** series are analog clock ICs that derive their timing from a 32KHz oscillator element. They feature alarm output snooze function and alarm auto-stop function. They can be configured to match a wide variety of clock specifications, motor outputs.

### Features

- Single 1.5V battery operation
- 32,768 Hz crystal frequency
- Low power dissipation
- Built-in trim capacitor
- Output for 1Hz or 16Hz stepper motor with selectable pulse width
- 256 second snooze interval
- 128 second alarm output auto-stop function (Mask Option)
- electronic sound motor bells
- ALIB and SNZB use different pins
- Built-in debounce circuit (ALIB/SNZB pin)
- Fast test functions
- Power-on-clear function

### PAD LAYOUT

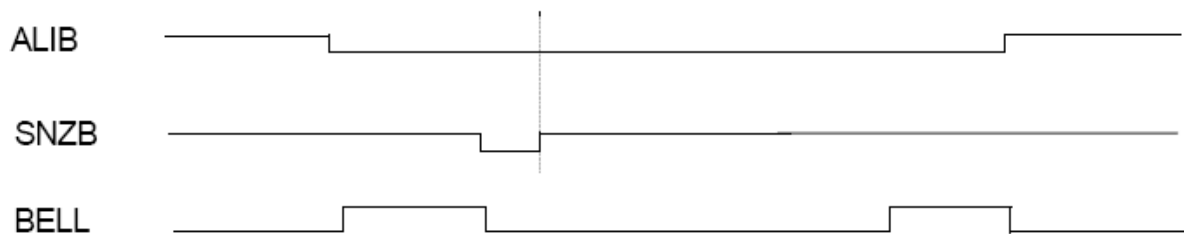


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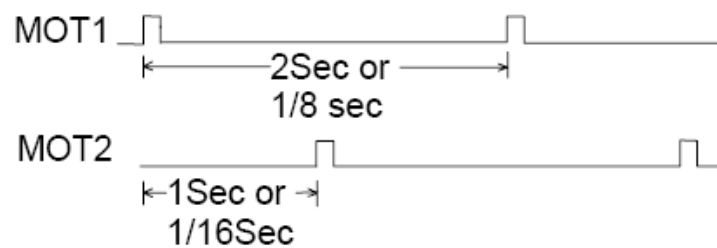
### TYPE LIST

TYPE	BELL	MOT frequency	MOT pulse width
DL1146	SINGLE	16Hz	62.5ms

### Snooze Waveform

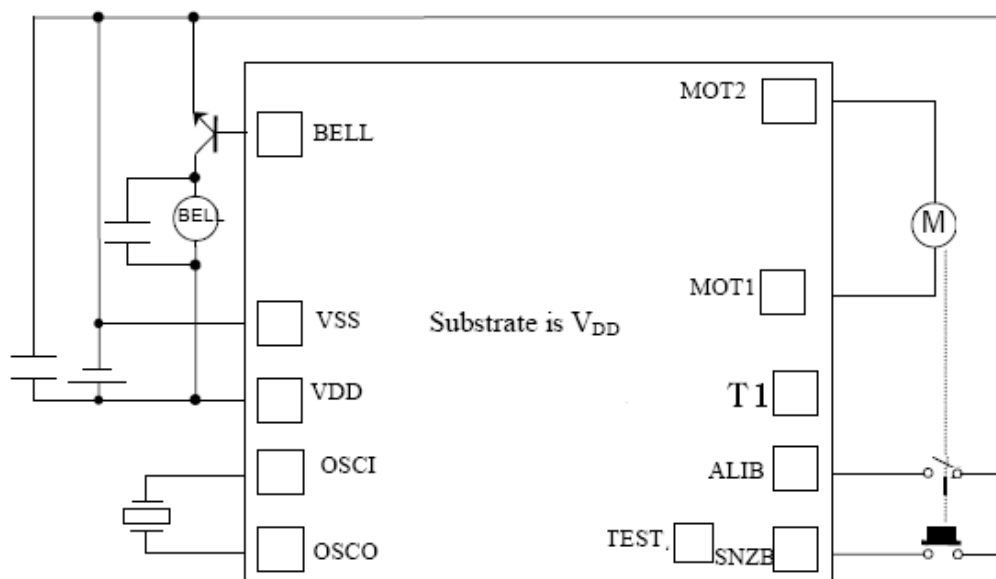


### Motor Output Driving



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### Bell application



### DC Characteristics

( $V_{DD}=1.5V$ ,  $V_{SS}=0V$ ,  $F_{osc}=32768Hz$   $T_a=25^{\circ}C$  unless specified otherwise)

Item	Symb.	Condition	Min.	Typ.	Max.	Unit
Supply Voltage	$V_{DD}$		1.1		1.8	V
Operating Current	$I_{DD}$	No Load		1.2	2.0	$\mu A$
Output Current Motor	$I_M$	$V_{DD}=1.2V$ $R_L=200\Omega$	4.5			mA
Output Current Bell High	$I_{OHB}$	$V_{DD}=1.3V$ $V_{OHA}=0.5V$	1	1.5		mA
OSC. Start time		$V_{DD}=1.2V$			2	sec
OSC. Stability	$\Delta f/f$	$\Delta V_{DD}=0.1V$		0.5	1	ppm
Internal Cap.	$C_d$			25		pF
Internal Cap.	$C_g$	Mask Option	5		25	pF