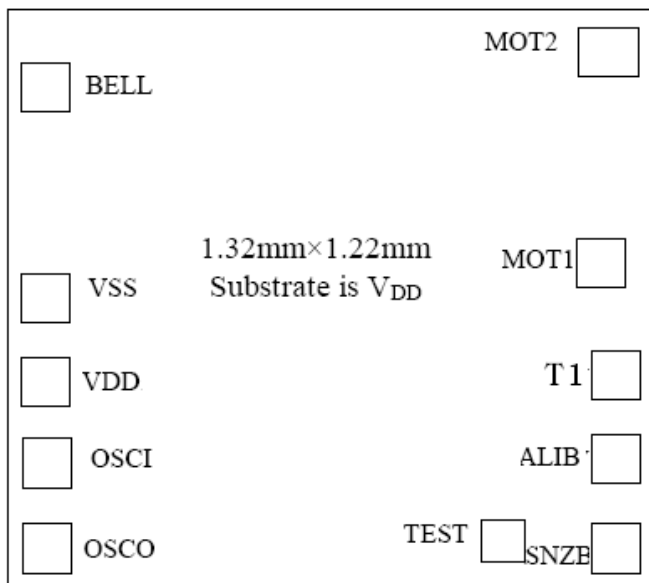


The DL1044 series are analog clock ICs that derive their timing from a 32KHz oscillator element. They feature alarm output snooze function and alarm auto-stop function. They can be configured to match a wide variety of clock specifications, motor outputs.

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

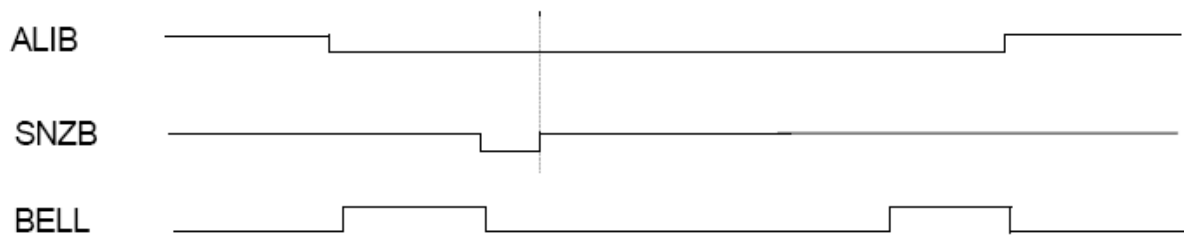


PAD No.	PAD Name.	X	Y
1	SNZB	75	1075
2	ALIB	75	911
3	T1	75	760
4	MOT1	105	553
5	MOT2	93	75
6	BELL	1175	186
7	VSS	1175	628
8	VDD	1175	778
9	OSCI	1175	923
10	OSCO	1175	1075
11	TEST	249	1065

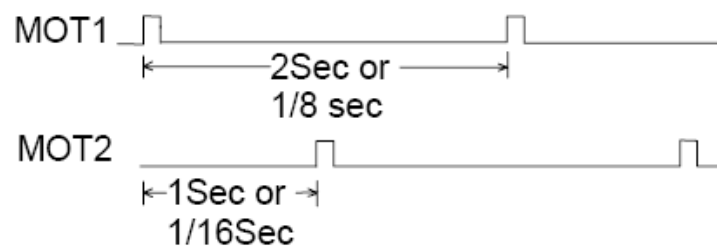
TYPE LIST

TYPE	BELL	MOT frequency	MOT pulse width
DL1044	SINGLE	1Hz	46.875ms

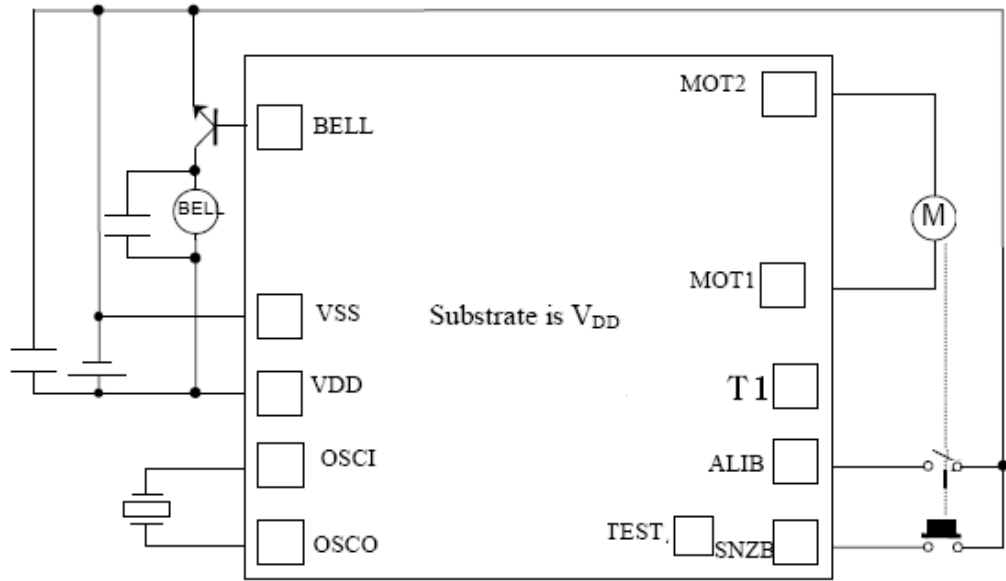
Snooze Waveform



Motor Output Driving



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	μA
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