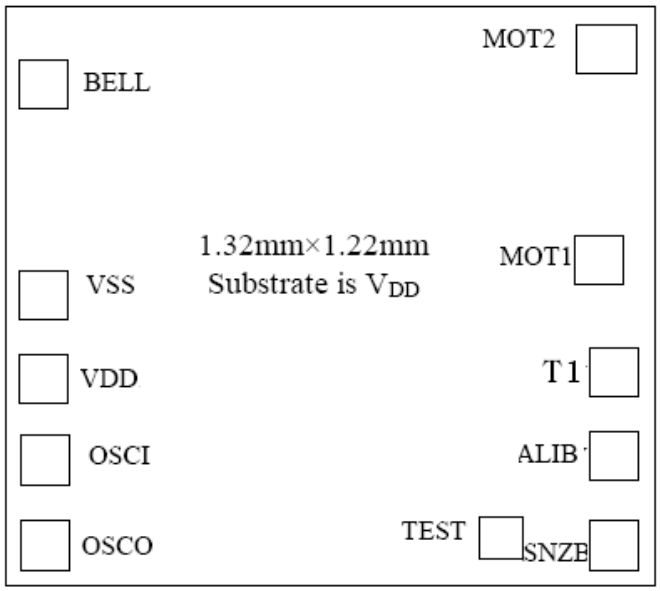
The DL1045 series are analog clock ICs that derive their timing form a 32KHz oscillator element. They feature alarm output snooze function and alarm auto-stop function. They can be configured to match a wide variety of clock specifications, motor outputs.

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

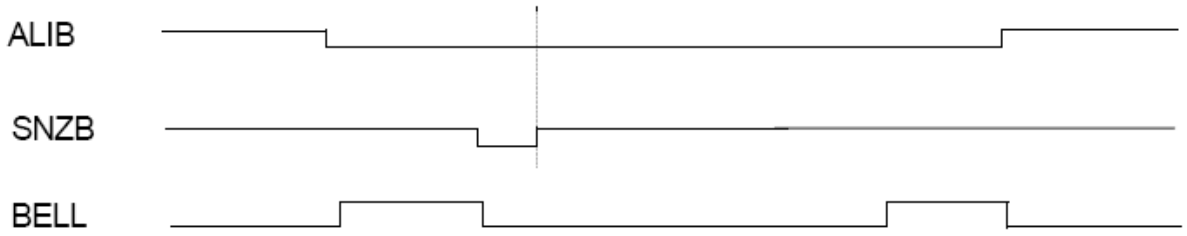


PAD No.	PAD Name.	X	Y
1	SNZB	75	1075
2	ALIB	75	911
3	T1	75	760
4	MOT1	105	553
5	MOT2	93	75
6	BELL	1175	186
7	VSS	1175	628
8	VDD	1175	778
9	OSCI	1175	923
10	OSCO	1175	1075
11	TEST	249	1065

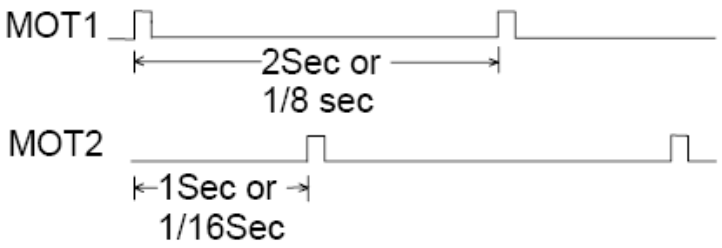
TYPE LIST

TYPE	BELL	MOT frequency	MOT pulse width
DL1045	SINGLE	1Hz	31.25ms

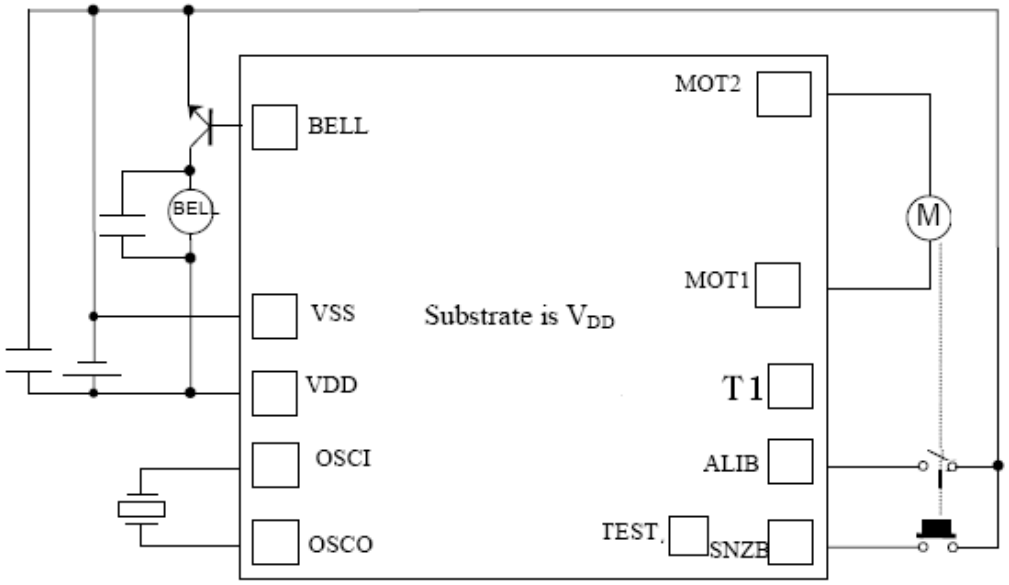
Snooze Waveform



Motor Output Driving



Bell application



DC Characteristics

(V_{DD}=1.5V, V_{SS}=0V, Fosc=32768Hz Ta=25℃ 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 RL=200Ω	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	△f/f	△V_{DD}=0.1V		0.5	1	ppm
Internal Cap.	Cd			25		pF
Internal Cap.	Cg	Mask Option	5		25	pF