



LB8555D, 8555S

General-Purpose Timer

Overview

The LB8555 is a delay time generator IC capable of generating exact timing pulses. Both trigger pin and reset pin are provided for various uses such as monostable multivibrator, astable multivibrator. The output circuit is capable of applying 200mA sink/source current. Output is interfaceable to TTL. This IC is usable as a replacement for Signetics-made NE555.

Features

- Timing time settable from several μ s. to several hours.
- Monostable multivibrator consisting of R=1, C=1 ; astable multivibrator consisting of R=2, C=1.
- Adjustable duty cycle of pulse.
- 200mA sink/source current for driving external load.

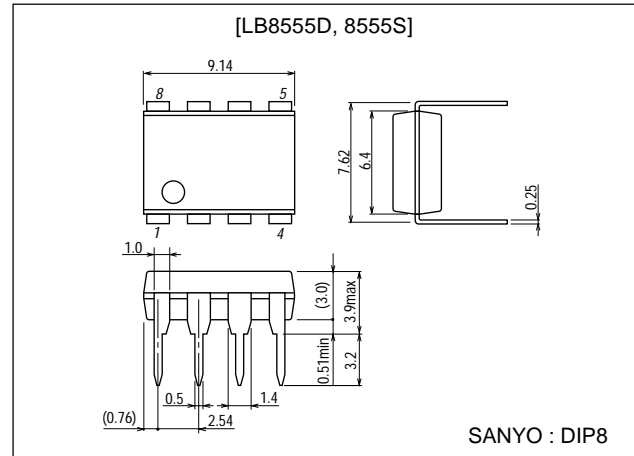
Applications

- Delay time generator (monostable multivibrator).
- Sequence timer.
- Pulse generator (astable multivibrator).
- DC-DC converter.
- Pulse width modulator.

Package Dimensions

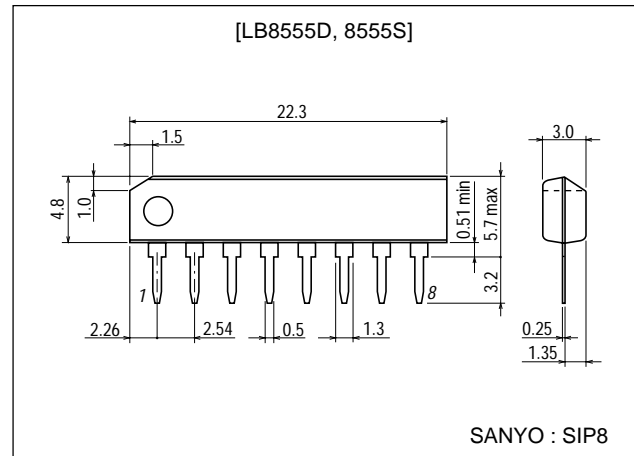
unit:mm

3001C-DIP8



unit:mm

3016B-SIP8



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Specifications

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	$V_{CC\text{ max}}$		18	V
Output current	I_{OUT}		± 200	mA
Input voltage		Trigger, control voltage, reset, threshold	V_{CC}	V
Allowable power dissipation	$P_{d\text{ max}}$		625	mW
Operating temperature	T_{opr}		-20 to +75	$^\circ\text{C}$
Storage temperature	T_{stg}		-40 to +125	$^\circ\text{C}$

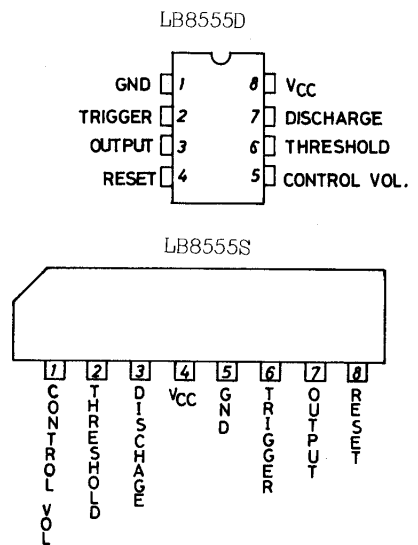
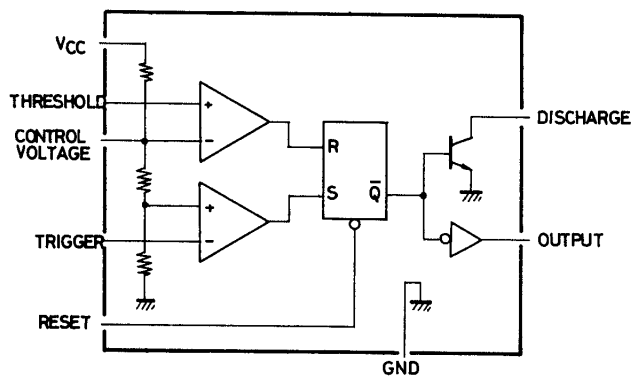
Allowable Operating Ranges at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage	V_{CC}		4.5 to 16	V
Input voltage	V_i	Trigger, control voltage, reset, threshold	V_{CC}	V
Output current	I_O		± 200	mA

Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Supply current	I_{CC1}	$V_{CC}=5\text{V}, R_L=\infty$		3	6	mA
	I_{CC2}	$V_{CC}=15\text{V}, R_L=\infty$		10	15	mA
Control voltage	V_{con1}	$V_{CC}=5\text{V}$	2.6	3.33	4.0	V
	V_{con2}	$V_{CC}=15\text{V}$	9	10	11	V
Threshold voltage	V_{TH}			$2/3V_{CC}$		V
Threshold current	I_{TH}			0.1	0.25	μA
Trigger voltage	V_T			$1/3V_{CC}$		V
Trigger current	I_T			0.5	1.0	μA
Reset voltage	V_{rs}		0.35	0.7	1.0	V
Reset current	I_{rs}			0.1		mA
Output low-level voltage	V_{OL}	$V_{CC}=5\text{V}, I_{sink}=5\text{mA}$		0.25	0.35	V
		$V_{CC}=15\text{V}, I_{sink}=10\text{mA}$		0.1	0.25	V
		$V_{CC}=15\text{V}, I_{sink}=100\text{mA}$		2.0	2.5	V
Output high-level voltage	V_{OH}	$V_{CC}=5\text{V}, I_{source}=100\text{mA}$	2.75	3.3		V
		$V_{CC}=15\text{V}, I_{source}=100\text{mA}$	12.75	13.3		V

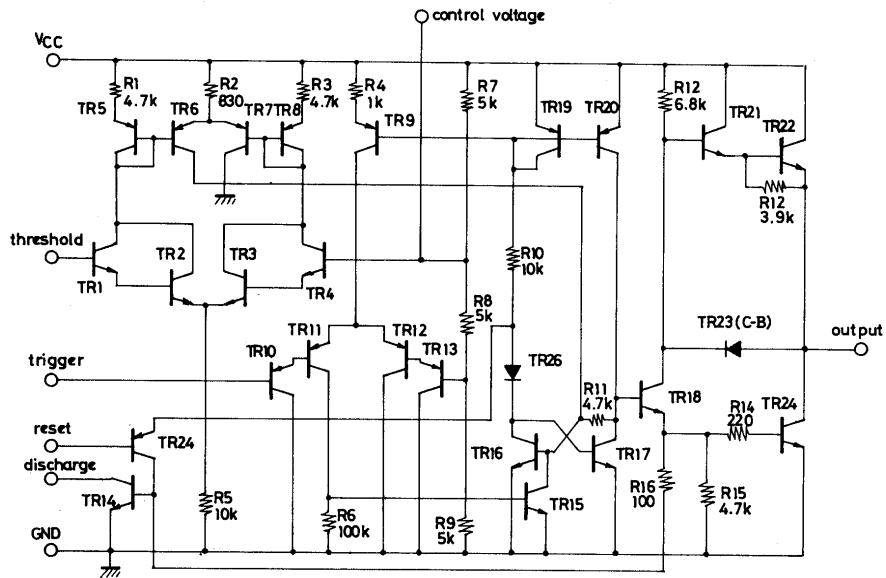
Equivalent Circuit Block Diagram and Pin Assignment



Top view

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Equivalent Circuit



Unit (resistance: Ω)

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