



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.

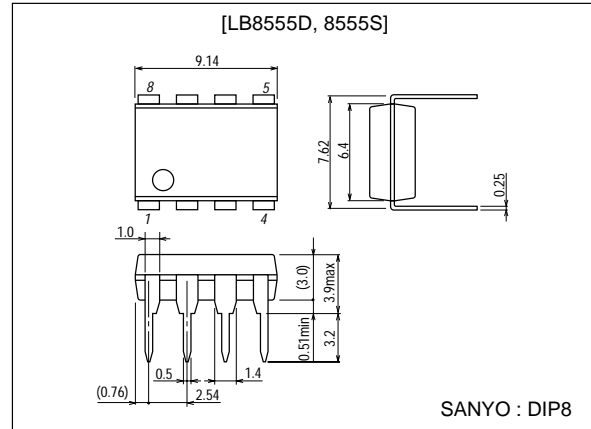
Applications

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

Package Dimensions

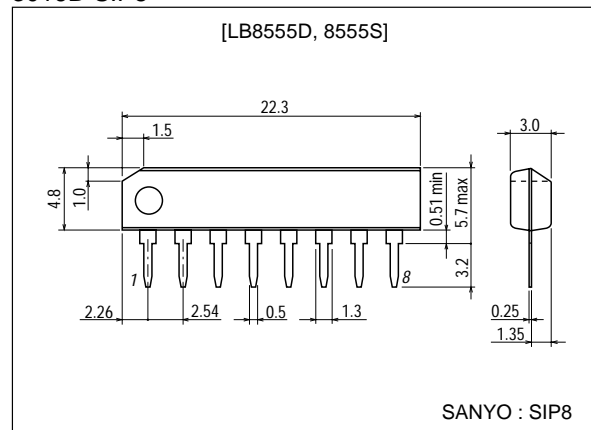
unit:mm

3001C-DIP8



unit:mm

3016B-SIP8



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Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V _{CC} max		18	V
Output current	I _{OUT}		±200	mA
Input voltage		Trigger, control voltage, reset, threshold	V _{CC}	V
Allowable power dissipation	Pd max		625	mW
Operating temperature	Topr		-20 to +75	°C
Storage temperature	Tstg		-40 to +125	°C

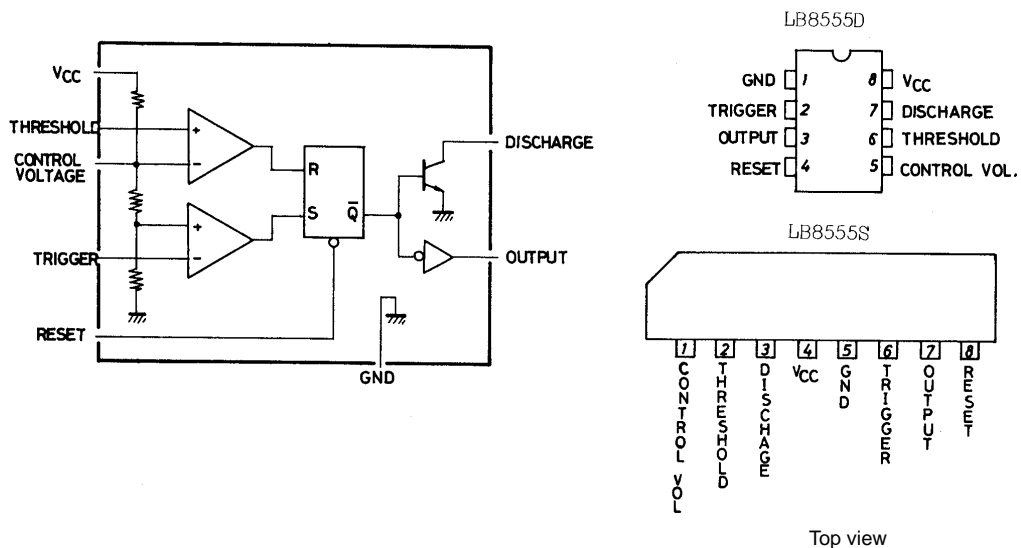
Allowable Operating Ranges at Ta = 25°C

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

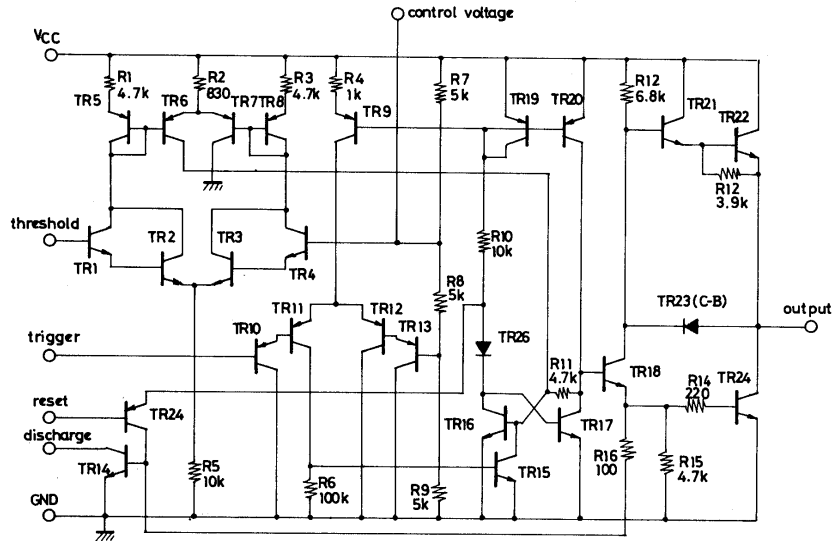
Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Supply current	I _{CC1}	V _{CC} =5V, R _L =∞		3	6	mA
	I _{CC2}	V _{CC} =15V, R _L =∞		10	15	mA
Control voltage	V _{con1}	V _{CC} =5V	2.6	3.33	4.0	V
	V _{con2}	V _{CC} =15V	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} =5V, I _{sink} =5mA		0.25	0.35	V
		V _{CC} =15V, I _{sink} =10mA		0.1	0.25	V
		V _{CC} =15V, I _{sink} =100mA		2.0	2.5	V
Output high-level voltage	V _{OH}	V _{CC} =5V, I _{source} =100mA	2.75	3.3		V
		V _{CC} =15V, I _{source} =100mA	12.75	13.3		V

Equivalent Circuit Block Diagram and Pin Assignment



Equivalent Circuit



Unit (resistance: Ω)

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