

# 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 µsec. to several hours
- $\cdot$  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

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Applications				
<ul> <li>Delay time generator (monos</li> </ul>	table multi	vibrator) · Sequence timer		
<ul> <li>Pulse generator (astable multiple)</li> </ul>	tivibrator)	· DC-DC converter		
$\cdot$ Pulse width modulator				
Absolute Maximum Ratings at	$Ta = 25^{\circ}C$		,	unit
Maximum Supply Voltage	V <sub>CC</sub> max		18	v
Output Current	IOUT		$\pm 200$	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 $+125$	°Č
Allowable Operating Range at	$Ta = 25^{\circ}C$			unit
Supply Voltage	V <sub>CC</sub>		4.5 to 16	v
Input Voltage	Vi	Trigger,control voltage, reset,threshold	V <sub>CC</sub>	V
Output Current	Io .	-	$\pm 200$	mA

#### Package Dimensions 3001B (unit: mm)



# Package Dimensions 3016B (unit: mm)



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# LB8555D,8555S

<b>Electrical Characteristics</b> at	Ta=25°C		min	typ	max	unit
Supply Current	I <sub>CC1</sub>	$V_{CC} = 5V, R_L = \infty$		3	6	mA
	I <sub>CC2</sub>	$V_{CC} = 15V, R_L = \infty$		10	15	mA
Control Voltage	$V_{con1}$	$V_{CC} = 5V$	2.6	3.33	4.0	V
	V <sub>con2</sub>	$V_{CC} = 15V$	9	10	11	v
Threshold Voltage	$\mathbf{V}_{\mathbf{TH}}$			$2/3V_{\rm CC}$		v
Threshold Current	$I_{TH}$			0.1	0.25	μA
Trigger Voltage	$\mathbf{V}_{\mathbf{T}}$			1/3V <sub>CC</sub>		v
Trigger Current	IT			0.5	1.0	μÅ
Reset Voltage	$V_{rs}$		0.35	0.7	1.0	V
Reset Current	I <sub>rs</sub>			0.1		mA
Output 'L'-Level Voltage	VOL	$V_{CC} = 5V_{J_{sink}} = 5mA$		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 'H'-Level Voltage	V <sub>OH</sub>	$V_{CC} = 5V, I_{source} = 100 \text{mA}$	2.75	3.3		v
		$V_{CC} = 15 V, I_{source} = 100 mA$	12.75	13.3		v

Equivalent Circuit Block Diagram and Pin Assignment



# Equivalent Circuit

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Unit (resistance:  $\Omega$ )

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