Ordering number: EN 1143B

Monolithic Digital IC

SANYO No.1143B

LB8555M

General-Purpose Timer

Overview

The LB8555M 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 the 555 type.

Features

- Miniflat package enabling compactness of sets
- Timing time settable from several μsec. 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)
- Pulse generator (astable multivibrator)
- Pulse width modulator
- Sequence timer
- DC-DC converter

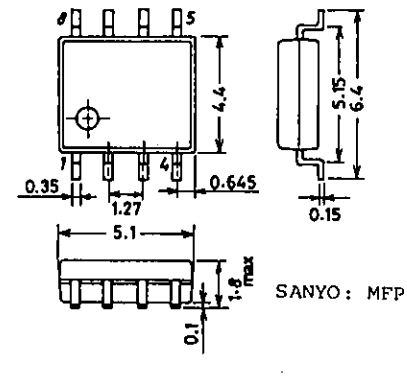
Absolute Maximum Ratings at Ta=25°C

				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		300	mW
Operating Temperature	Topr		−20 to +75	°C
Storage Temperature	Tstg		−40 to +125	°C

Allowable Operating Range at Ta=25°C

				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

Package Dimensions 3032B
(unit: mm)



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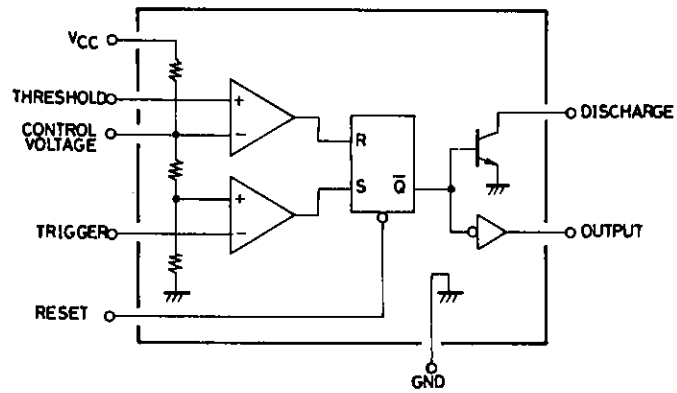
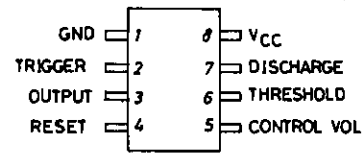
Electrical Characteristics at Ta = 25°C			min	typ	max	unit
Supply Current	I_{CC1}	$V_{CC}=5V, R_L=\infty$		3		mA
	I_{CC2}	$V_{CC}=15V, R_L=\infty$		10	15	mA
Control Voltage	V_{con1}	$V_{CC}=5V$	2.6	3.33	4.0	V
	V_{con2}	$V_{CC}=15V$	9	10	11	V
Threshold Voltage	V_{TH}			$2/3V_{CC}$		V
Threshold Current	I_{TH}			0.1		μA
Trigger Voltage	V_T			$1/3V_{CC}$		V
Trigger Current	I_T			0.5	1.0	μA
Reset Voltage	V_{rs}			0.7	1.0	V
Reset Current	I_{rs}			0.1		mA
Output 'L'-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 'H'-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)