



SANYO Semiconductors

DATA SHEET

LA5795T — Monolithic Linear IC Tuner Power Supply Systems

Overview

The LA5795T is a tuner power supply systems.

Functions and Features

- 8× step-up charge pump system takes a 5V input and produces a 31V output.
- Charge pump technique used to achieve a low-noise power supply.

Specifications

Maximum Ratings at GND = 0V

Parameter	Symbol	Conditions	Ratings			Unit
			min	type	max	
Maximum supply voltage	$V_{CC \text{ max}}$				7	V
Allowable power dissipation	$P_d \text{ max}$	Mounted on the specified circuit board *			400	mW
Operating temperature	T_{opr}		-25		+90	°C
Storage temperature	T_{stg}		-40		+150	°C

* Specified circuit board : 20.0×10.0×0.8mm³, paper-phenol board with 20% wiring density.

Allowable Operating Ranges at $T_a = 25^\circ\text{C}$, $V_{CC} = 5\text{V}$, GND = 0V (unless otherwise specified)

Parameter	Symbol	Conditions	Ratings			Unit
			min	type	max	
Supply voltage	V_{DD}		4.5	5	5.5	V
Operating temperature	T_a		-10		80	°C
Timing capacitance	C_{OSC}		56		330	pF
Oscillator frequency	f_{OSC}		40		250	kHz

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SANYO Semiconductor Co., Ltd.

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

LA5795T

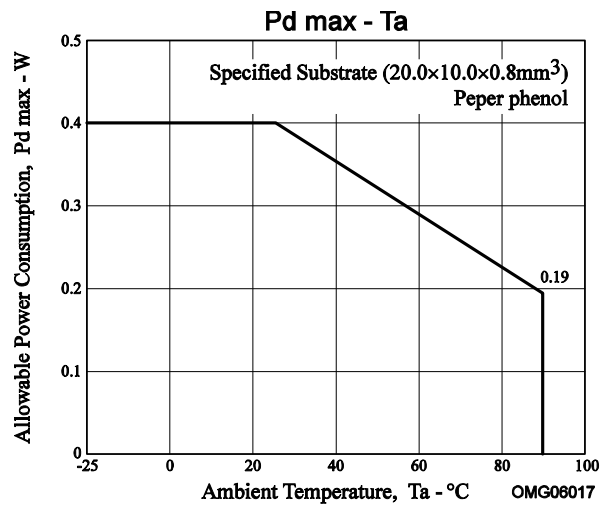
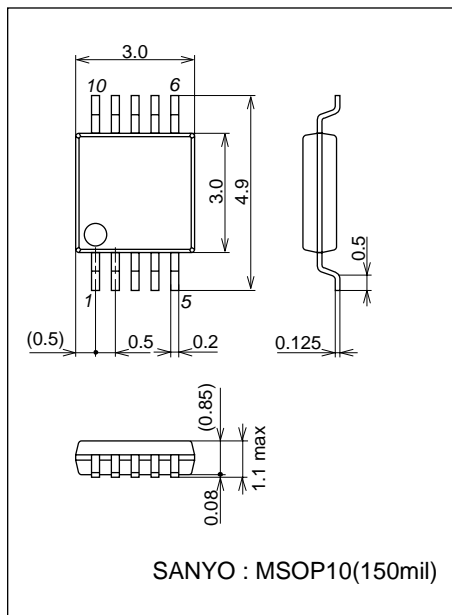
Electrical Characteristics at $T_a = 25^\circ\text{C}$, $V_{CC} = 5\text{V}$, $\text{GND} = 0\text{V}$ (unless otherwise specified)

Parameter	Symbol	Conditions	Ratings			Unit
			min	type	max	
Current drain	I_{IN}	$I_O = 1\text{mA}$, $V_{CC} = 5.0\text{V}$	26	31	38	mA
Output voltage	V_{OUT}	$I_O = 1\text{mA}$, $V_{CC} = 5.0$ to 5.25V	29	31	34	V
Output voltage fluctuations	ΔV_{OUT}	$I_O = 1\text{mA}$, $V_{CC} = 5.0$ to 5.25V		1		V
Oscillator frequency	f_{OSC}	$C_{OSC} = 100\text{pF}$	95	120	145	kHz
Frequency fluctuations 1	f_{dv}	$V_{CC} = 4.5\text{V}$ to 5.5V		25		%
Frequency fluctuations 2	f_{dt}	-10°C to 80°C		25		%

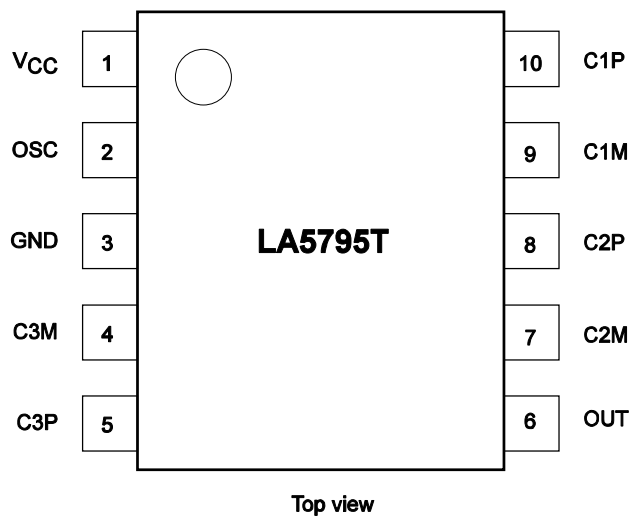
Package Dimensions

unit : mm

3297

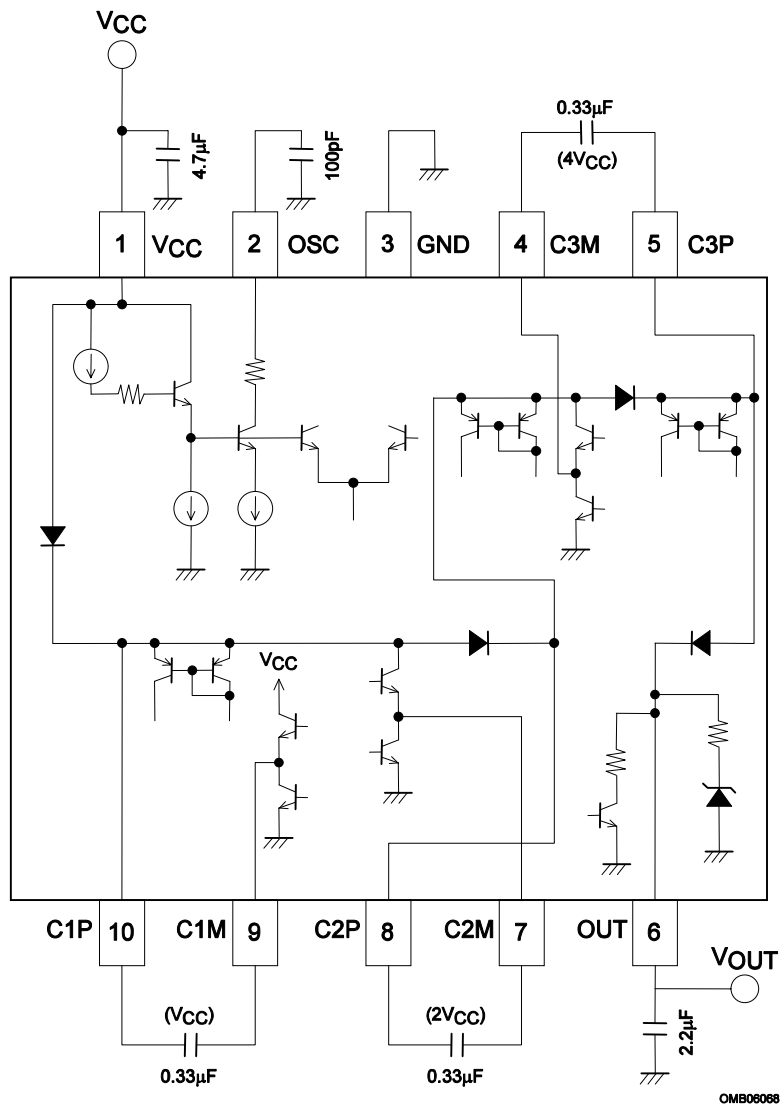


Pin Assignment

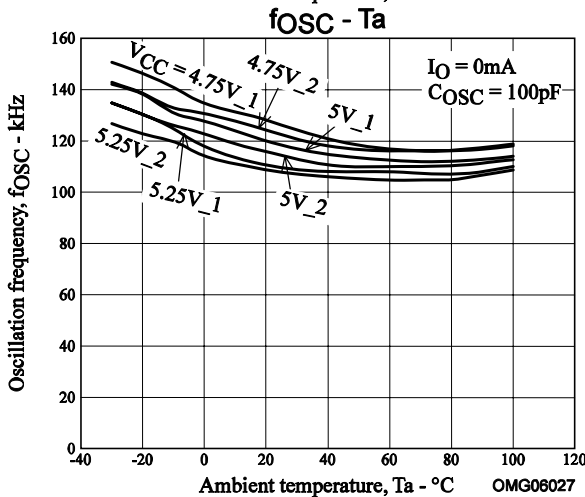
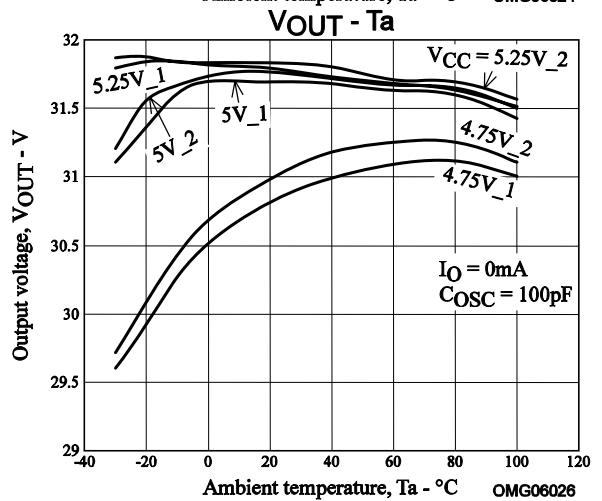
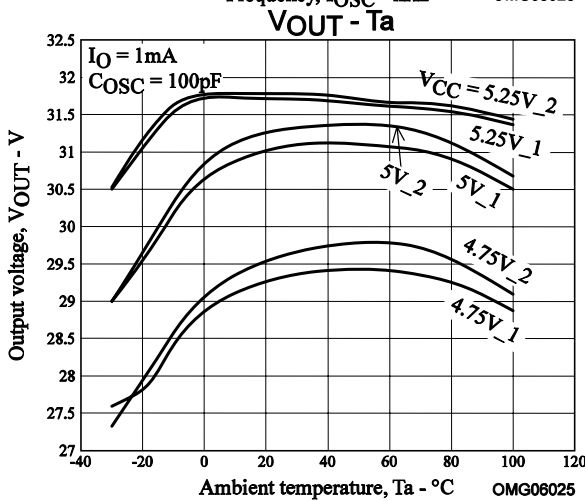
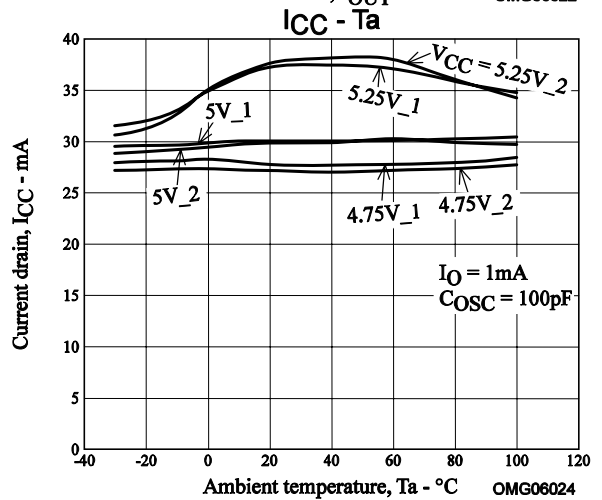
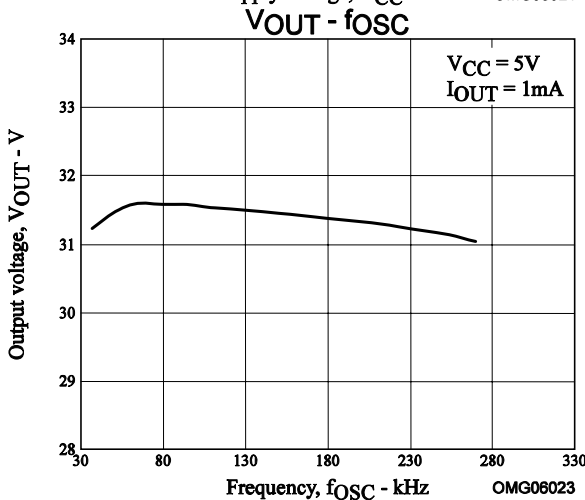
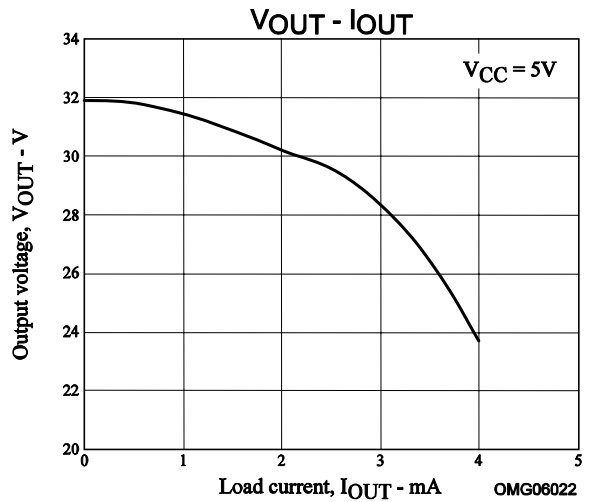
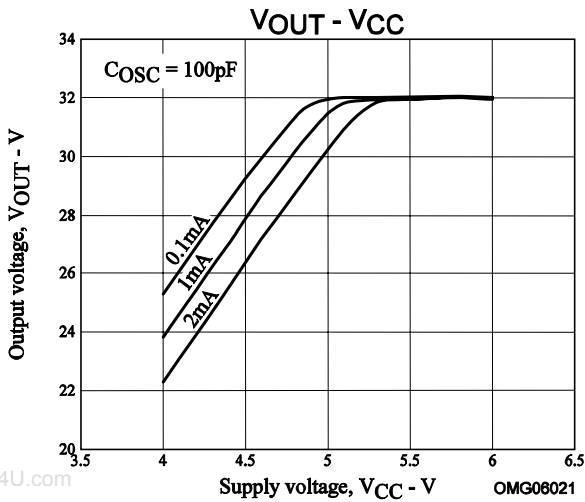


LA5795T

Block Diagram and Recommended Application Circuit



*: Items in parentheses are the voltages actually applied to the capacitors.



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