

SANYO

No.3177A

LA5640N**Voltage Regulator for LCD**

The LA5640N is a voltage regulator IC for use in LCD-used sets as well as desk-top calculators. This IC, designed for LSI which drives LCD, regulates LCD driving voltage of LSI according to the temperature characteristic of LCD so that the variations in temperature cause no shading of LCD.

Features

- Small quiescent current : 20 μ A typ.
- Small input-output voltage drop : 0.1V typ.
- Output voltage : 3.15V typ.
- Temperature coefficient of output voltage : 11.2mV/ $^{\circ}$ C typ.

Maximum Ratings at Ta = 25 $^{\circ}$ C

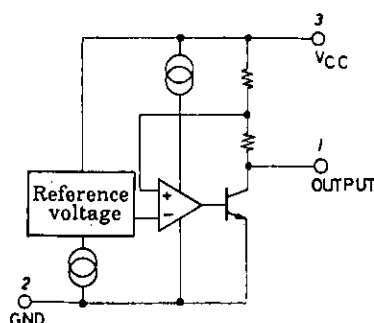
		unit
Maximum Supply Voltage	V_{CC} max	8.5 V
Maximum Output Current	I_O max	300 μ A
Allowable Power Dissipation	P_d max	300 mW
Operating Temperature	T_{opr}	-25 to +75 $^{\circ}$ C
Storage Temperature	T_{stg}	-55 to +125 $^{\circ}$ C

Recommended Operating Conditions at Ta = 25 $^{\circ}$ C

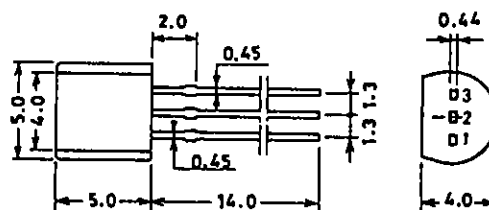
		unit
Supply Voltage	V_{CC}	4.0 to 7.0 V
Output Current	I_O	50 to 250 μ A

Operating Characteristics at Ta = 25 $^{\circ}$ C, V_{CC} = 6V

		min	typ	max	unit
Output Voltage 1	V_O V_{CC} = 4 to 7V, I_O = 50 to 250 μ A (Pins 3-1)	2.90	3.15	3.4	V
Output Voltage 2	H- V_O I_O = 50 to 250 μ A, T_a = 40 $^{\circ}$ C	2.7	2.95	3.2	V
Output Voltage 3	C- V_O I_O = 50 to 250 μ A, T_a = 0 $^{\circ}$ C	3.1	3.45	3.8	V
Reactive Voltage	V_C I_O = 250 μ A		0.1	0.3	V
Quiescent Current	I_{CC}		20	40	μ A
Line Regulation	ΔV_O		2		mV/V
Temperature Coefficient of Output Voltage	$\Delta V_O/\Delta T$	-11.2			mV/ $^{\circ}$ C

Equivalent Circuit**Package Dimensions
(unit: mm)**

3131



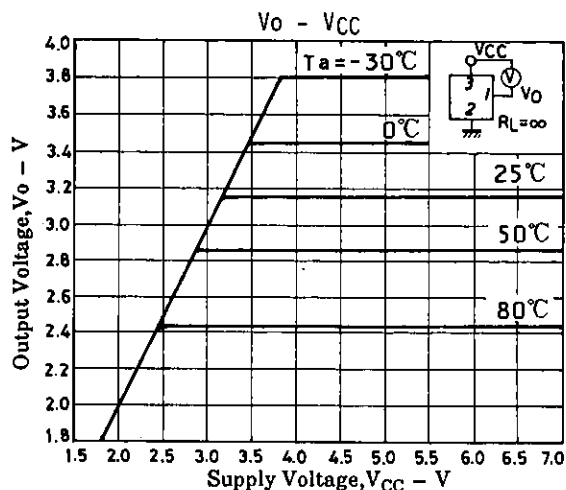
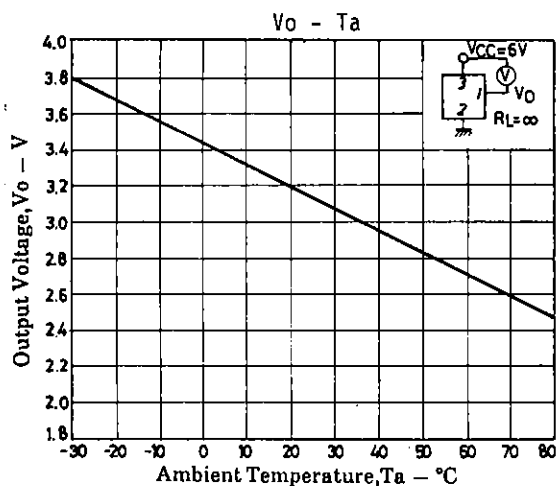
JEDEC: TO-92
EIAJ: SC-43
SANYO: NP

3: V_{CC}
2: GND
1: OUTPUT

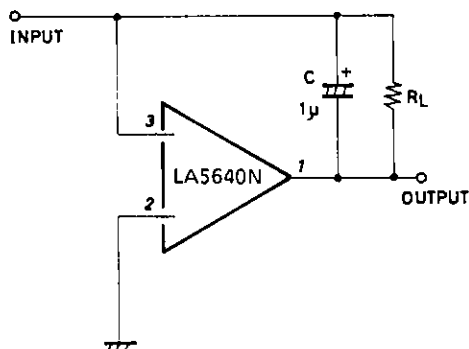
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7049YT, TS No.3177-1/2



Sample Application Circuit



Unit (capacitance: F)

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