

SANYO

No.1177B

**LA5640**
 Monolithic Linear IC
 VOLTAGE REGULATOR FOR LCD

The LA5640 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 : 20uA typ.
- . Small input-output voltage drop : 0.1V typ.
- . Output voltage : 3.15V typ.
- . Temperature coefficient of output voltage : 11.2mV/°C typ.

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

			unit
Maximum Supply Voltage	V_{CCmax}	8.5	V
Maximum Output Current	I_{Omax}	300	uA
Allowable Power Dissipation	P_{dmax}	300	mW
Operating Temperature	T_{opg}	-25 to +75	°C
Storage Temperature	T_{stg}	-55 to +125	°C

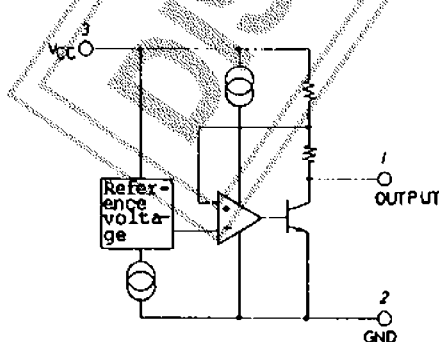
Recommended Operating Conditions at $T_a=25^\circ\text{C}$

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

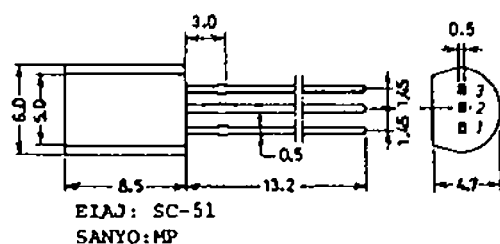
Operating Characteristics at $T_a=25^\circ\text{C}, V_{CC}=6\text{V}$

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

Equivalent Circuit



Case Outline 3039-S3TR (unit:mm)

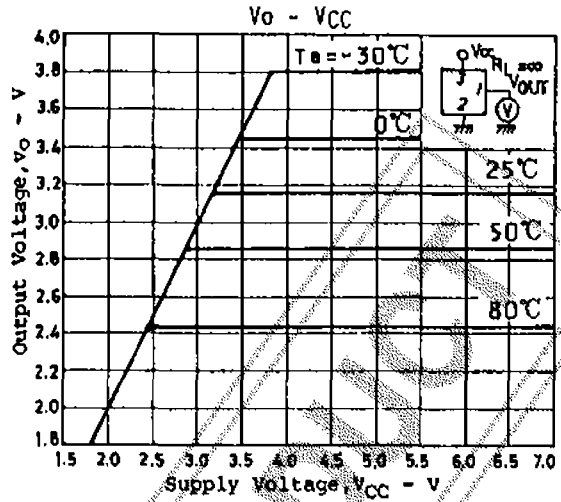
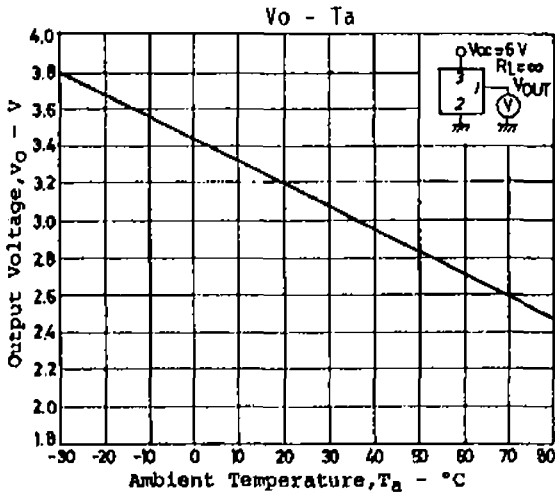


Specifications and information herein are subject to change without notice.

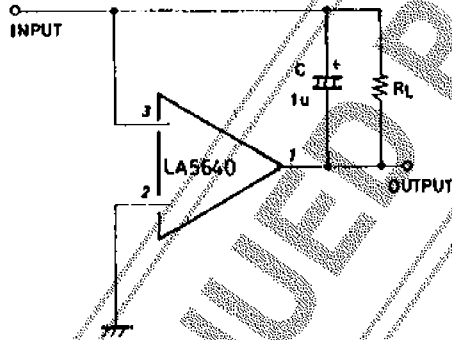
SANYO Electric Co., Ltd. Semiconductor Overseas Marketing Div.
 Natsume Bldg., 18-6, 2-chome, Yushima, Bunkyo-ku, TOKYO 113 JAPAN

8217KI/4193KI/9282KI, TS No.1177-1/2

LA5640



Sample Application Circuit



Information furnished by SANYO is believed to be accurate and reliable. However, no responsibility is assumed by SANYO for its use, nor for any infringements of patents or other rights of third parties which may result from its use, and no license is granted by implication or otherwise under any patent or patent rights of SANYO.