	No. 1531B	<h1 style="margin: 0;">LA5311M</h1> <p style="margin: 0;">Variable Divided Voltage Generator for LCD</p>
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The LA5311M is a variable divided voltage generator IC for multiple drive of LCD matrix.

Features

- . Power supply for variable bias LCD drive.
- . 4 OP amps to deliver 4 voltage outputs.
- . Low current dissipation (1.0mA max.)
- . Miniflat package.

Maximum Ratings at Ta=25°C

Maximum Supply Voltage	V _{CC} max	30	V
Output Current	I _{OUT}	5	mA
Allowable Power Dissipation	P _d max	300	mW
Operating Temperature	T _{opr}	-20 to +75	°C
Storage Temperature	T _{stg}	-40 to +125	°C

Operating Conditions at Ta=25°C

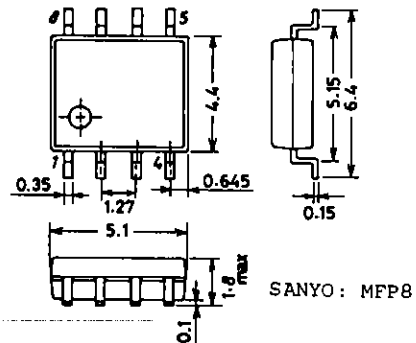
Supply Voltage Range	V _{CC} op V _{CC} -V ₁ >1.0V	11 to 28	V
Recommended Output Current	I ₁	0 to 3	mA
Recommended Output Current	I _{2, I₃}	-3 to +3	mA
Recommended Output Current	I ₄	-3 to 0	mA

Operating Characteristics at Ta=25°C, V_{CC}=20V

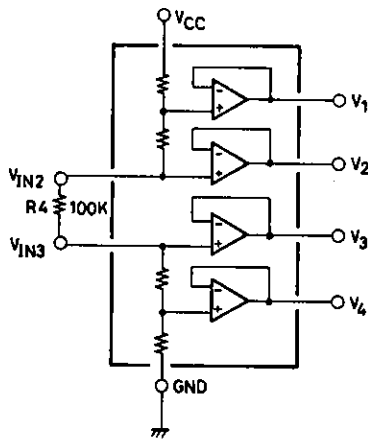
		min	typ	max	unit
Current Dissipation	I _{CC}			1.0	mA
Output Ratio 1	R1	V ₂ /V ₁ , V _{CC} =0: GND=-20V=V ₅ External R _A =100kohms		1.94	2.06
Output Ratio 2	R2	V ₅ -V ₃ /V ₅ -V ₄		1.94	2.06
Output Ratio 3	R3	V ₂ /V ₅ -V ₃		0.97	1.03
Output Ratio 4	R4	V ₁ /V ₅ -V ₄		0.97	1.03
Load Regulation	ΔV1	+100uA < I _{OUT} < +3mA			20 mV
"	ΔV2	"			20 mV
"	ΔV3	"			20 mV
"	-ΔV2	-3mA < I _{OUT} < -100uA			20 mV
"	-ΔV3	"			20 mV
"	-ΔV4	"			20 mV
R ₁ +R ₂	R	0.5V applied across R ₁ +R ₂		33	40 47 kohm

Package Dimensions 3032B

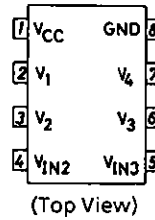
(unit: mm)



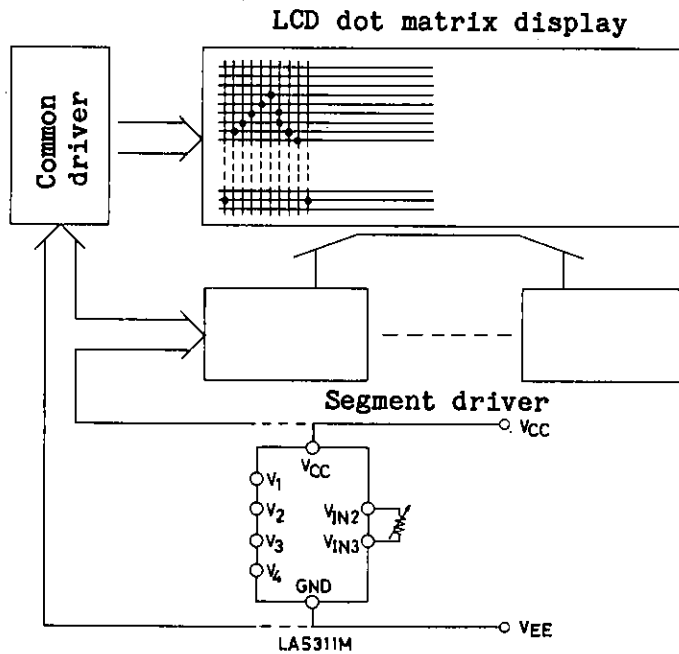
Equivalent Circuit



Pin Assignment



Sample Application Circuit



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