

SANYO	No.2073B	LA5527M
	Low-Voltage DC Motor Speed Controller	

Especially suited for controlling speed of a low-voltage (3V min.) DC motor for cassette tape recorders, 8mm motion-picture cameras, record players

Features

- . Wide operating voltage range (1.8 to 6V)
- . Easy to vary speed
- . Large starting torque
- . Easy to control rotational speed from very low speed to high speed

Maximum Ratings at Ta=25°C

Maximum Supply Voltage	V_{CCmax}	8	unit
Allowable Power Dissipation	P_{dmax}	350	V
Motor Current	I_m	700	mW
Operating Temperature	T_{opr}	-20 to +80	mA
Storage Temperature	T_{stg}	-40 to +150	°C

Operating Conditions at Ta=25°C

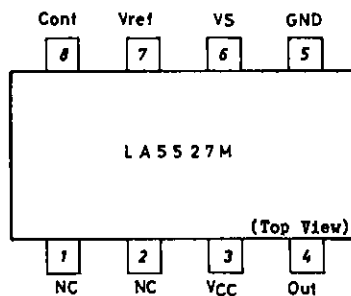
Supply Voltage Range	V_{CCop}	1.8 to 6	unit
Recommended Operating Temperature	T_{opg}	-10 to +60	V

Operating Characteristics at Ta=25°C

		min	typ	max	unit
Reference Voltage	V_{ref}	$V_{CC}=3V, I_m=100mA$ 1.15	1.25	1.3	V
Quiescent Current Dissipation	I_d	$V_{CC}=3V, I_m=100mA$	3.0	6.0	mA
Shunt Ratio	K	$V_{CC}=3V, I_m=50-150mA$ 45	50	55	
Residual Voltage	V_{sat}	$V_{CC}=3V, I_m=200mA$	0.3	0.5	V
Voltage Characteristic of Reference Voltage	$\frac{\Delta V_{ref}}{V_{ref}/\Delta V_{CC}}$	$V_{ref}=V_{cont}$ $V_{CC}=1.8to6V, I_m=100mA$	0.1	0.3	%/V

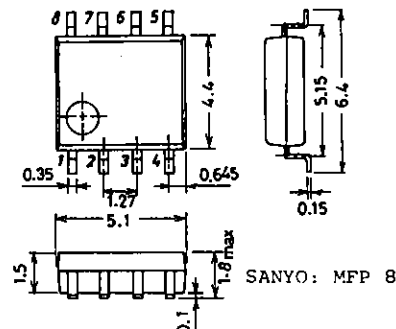
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Pin Assignment



Package Dimensions 3032B

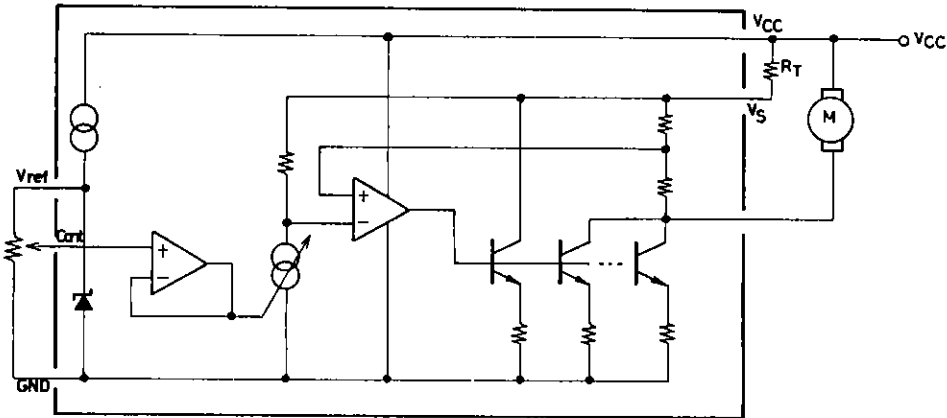
unit: mm



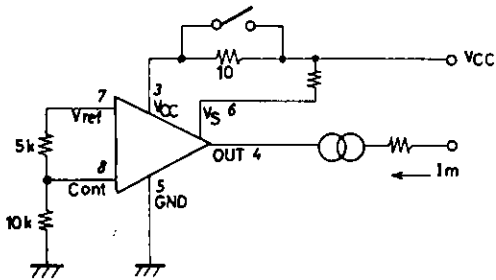
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		$V_{CC}=2.0\text{ to }6\text{V}$	min	typ	max	unit
Voltage Characteristic of Shunt Ratio	$\frac{\Delta K}{K/\Delta V_{CC}}$	$I_m=50\text{--}150\text{mA}$	0.05	0.3		%/V
Current Characteristic of Reference Voltage	$\frac{\Delta V_{ref}}{V_{ref}/\Delta I_m}$	$V_{CC}=3\text{V}$ $I_m=20\text{ to }200\text{mA}$	0.005	0.01		%/mA
Current Characteristic of Shunt Ratio	$\frac{\Delta K}{K/\Delta I_m}$	$V_{CC}=3\text{V}$ $I_m=20\text{--}50\text{mA to }170\text{--}200\text{mA}$	-0.02-0.005	0.02		%/mA

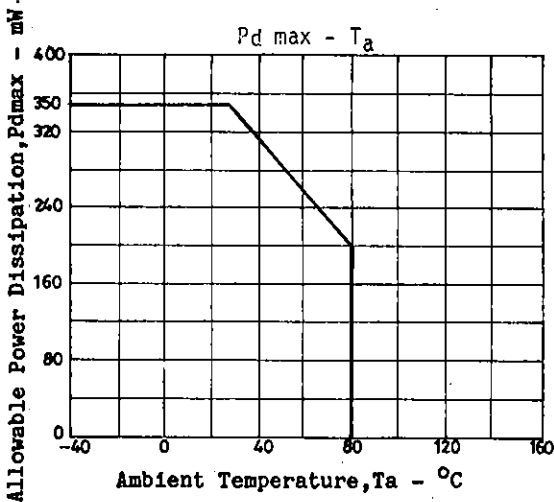
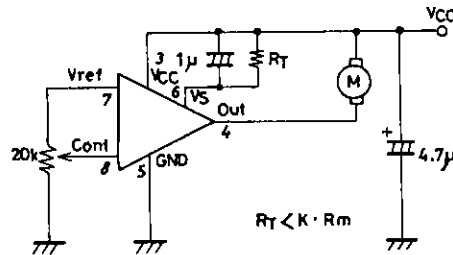
Equivalent Circuit Block Diagram



Test Circuit



Application Circuit



Unit (resistance: Ω, capacitance: F)

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