

Ordering number: EN 2118A

Monolithic Linear IC

<b>SANYO</b>	NO.2118A	<b>LA5666</b>
	<b>Multifunction Multiple Voltage Regulator</b>	

**Use**

- Especially suited for use in micorcomputer-controlled tuners, receivers, preamps and the like

**Functions and Features**

- Two independent regulators contained in a single chip (13.0V/350mA, 5.6V/100mA)
- Reset circuit which delivers the reset signal on the positive transition, negative transition of the 5.6V output
- Muting circuit which detects the 13.0V input and reset output to deliver the muting signal  
(We have the LA5665 whose detection function for reset, muting is provided on the output voltage side.)

**Maximum Ratings at Ta=25°C**

			unit
Input Voltage	$V_{IN1,2}$	36	V
Output Current	$I_{OUT1,2}$ Internal		
Allowable Power Dissipation	$P_{dmax}$ IC only	1.6	W
Operating Temperature	$T_{opr}$	-30 to +80	°C
Storage Temperature	$T_{stg}$	-40 to +125	°C

**Operating Conditions at Ta=25°C**

			unit
Input Voltage	$V_{IN1}$ $I_{OUT1}=200mA$	16.2 to 35	V
	$V_{IN2}$ $I_{OUT2}=50mA$	8.7 to 35	V

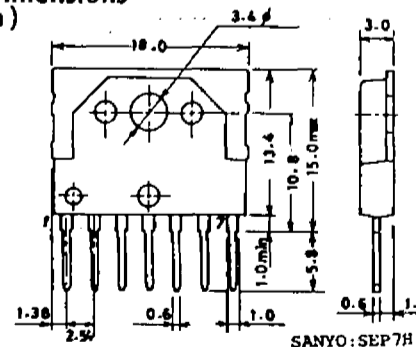
**Operating Characteristics at Ta=25°C,  $V_{IN1}=20V, V_{IN2}=10V$**

		min	typ	max	unit
Quiescent Current	$I_{IN1}$	1.8	2.8	3.8	mA
	$I_{IN2}$	3.8	5.8	7.8	mA
Output Voltage	$V_{o1}$ $I_{OUT1}=200mA$	12.3	13.0	13.7	V
	$V_{o2}$ $I_{OUT2}=50mA$	5.2	5.6	6.0	V
Line Regulation	$V_{o11}$ $V_{IN2}=19$ to 27V		6	20	mV
	$V_{o12}$ $V_{IN2}=9$ to 18V		2	20	mV
Load Regulation	$V_{old1}$ $I_o=0$ to 350mA		10	30	mV
	$V_{old2}$ $I_o=0$ to 100mA		2	20	mV
Ripple Rejection	$Rr1$ $f=120Hz, I_o=200mA$	56	65		dB
	$Rr2$ $f=120Hz, I_o=50mA$	60	75		dB

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**Package Dimensions**

(unit: mm)  
3075



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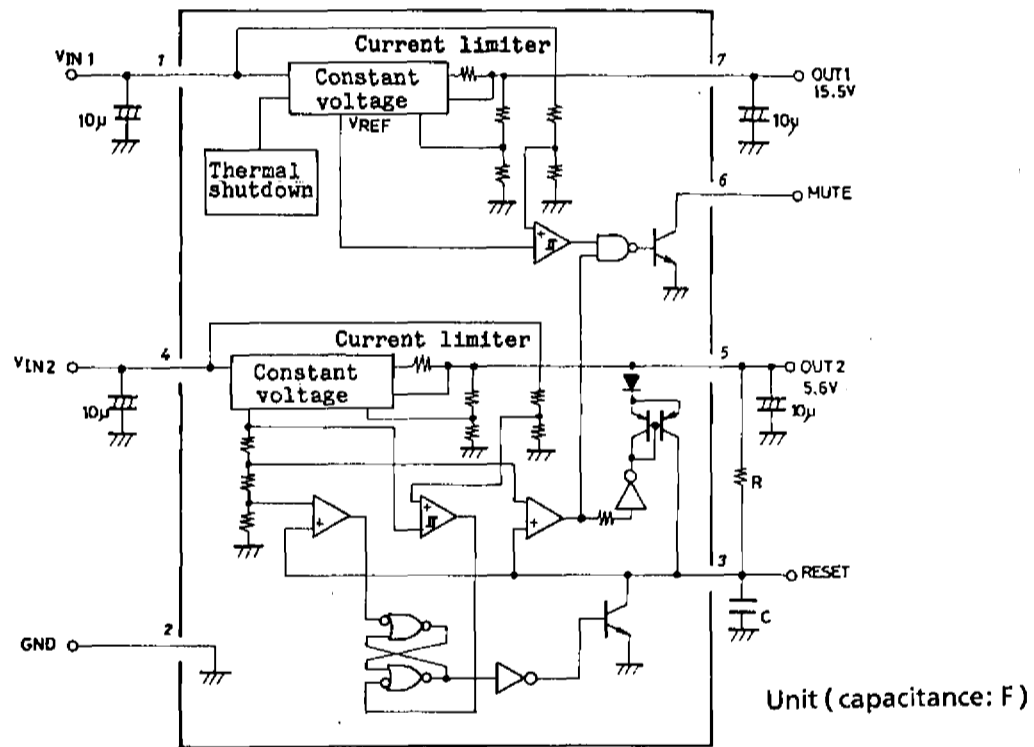
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			min	typ	max	unit
Input-Output Voltage Drop	V <sub>dr1</sub>	I <sub>o</sub> =200mA		1.6	2.5	V
	V <sub>dr2</sub>	I <sub>o</sub> =50mA		1.5	2.5	V
Reset Detect Voltage	ΔV <sub>R</sub>	ΔV <sub>R</sub> =V <sub>R</sub> -V <sub>o2</sub> , I <sub>o2</sub> =50mA	1.65	1.9	2.2	V
Reset Detect Hysteresis Voltage	ΔV <sub>H</sub>		50	75	110	mV
Timer Compare Voltage	V <sub>C1</sub>		1.0	1.2	1.4	V
	V <sub>C2</sub>		0.06	0.13	0.18	V
Timer Input Bias Current	I <sub>TB</sub>	(Note2)			250	nA
Muting Detect Voltage	ΔV <sub>M</sub>	ΔV <sub>M</sub> =V <sub>M</sub> -V <sub>o1</sub> , I <sub>o1</sub> =200mA	1.0	1.5	2.0	V
Muting Output Voltage	V <sub>OMUTE</sub>	I <sub>OMUTE</sub> =5mA		0.1	0.15	V
Muting Detect Hysteresis Voltage	ΔV <sub>MH</sub>		110	160	210	mV

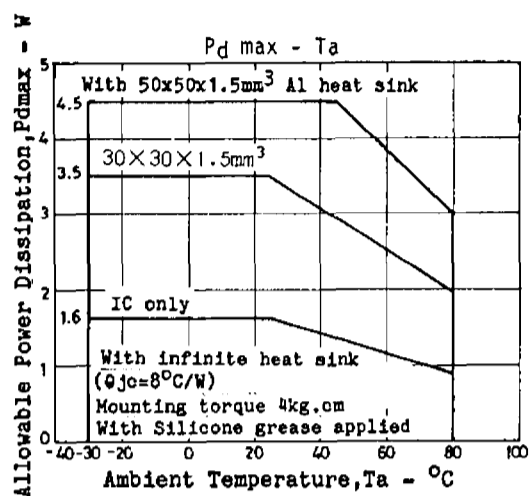
Note 1: V<sub>R</sub> is the voltage of V<sub>IN2</sub> at the time reset is turned OFF.  
 Note 2: V<sub>M</sub> is the voltage of V<sub>IN1</sub> at the time muting is turned OFF.

**Equivalent Circuit Block Diagram, Pin Assignment, and Peripheral Circuit**

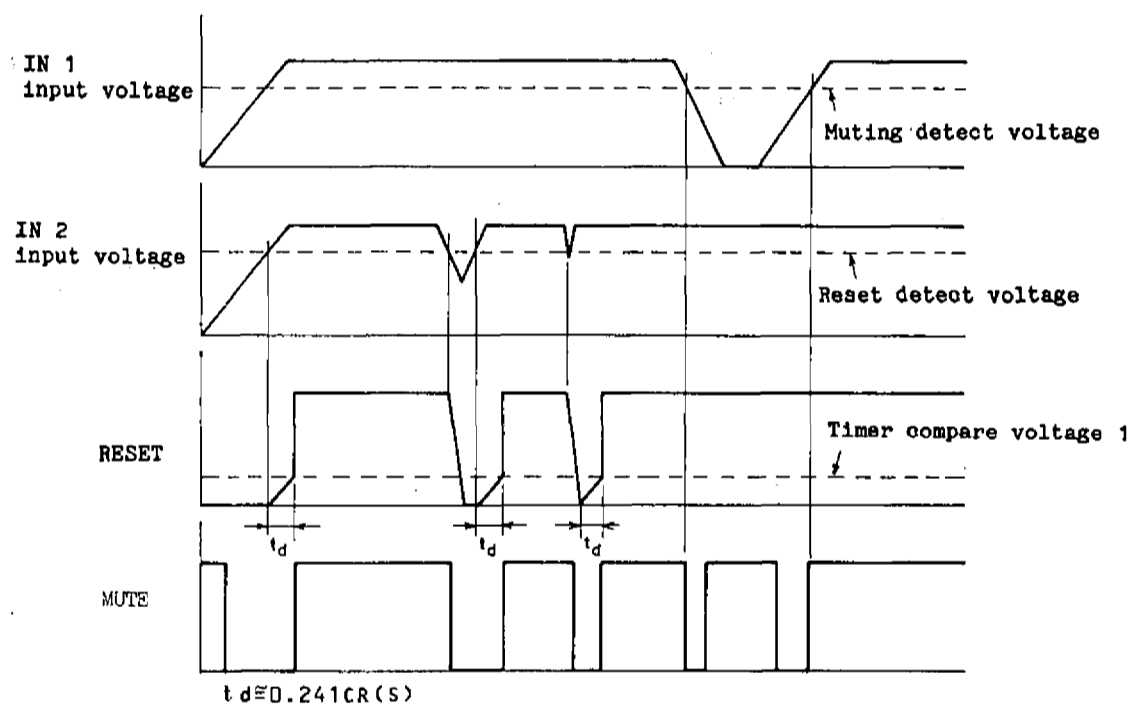


(Note) The reset delay time is set by R, C.

Pin No.	Name	Description
1	V <sub>IN1</sub>	Input pin for 13.0V output line
2	GND	Ground
3	RESET	Reset delay time and output pin
4	V <sub>IN2</sub>	Input pin for 5.6V output line
5	OUT2	5.6V output pin
6	MUTE	Muting signal output pin
7	OUT1	13.0V output pin



**Operating Waveforms**



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