

<b>SANYO</b>	NO.2300A	<b>LA5667</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**

Input Voltage	$V_{IN1,2}$	36	unit
Output Current	$I_{OUT1,2}$ Internal		V
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**

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

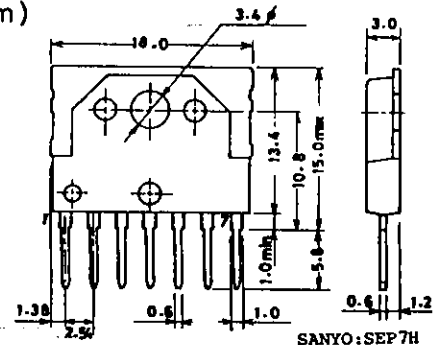
**Operating Characteristics at Ta=25°C,  $V_{IN1}=20V, V_{IN2}=10V$**

			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



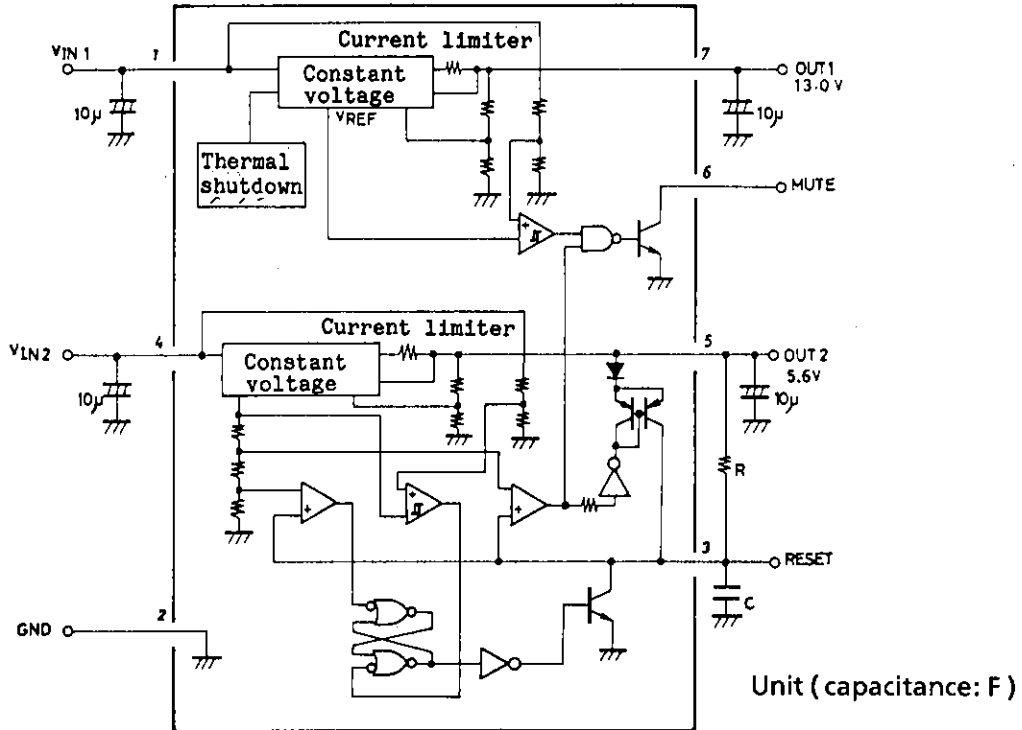
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			min	typ	max	unit
Input-Output Voltage Drop	V <sub>dr1</sub>	I <sub>o</sub> =200mA		1.6	2.5	V
	V <sub>dr2</sub>	I <sub>o</sub> =50mA		1.5	2.5	V
Reset Detect Voltage	ΔV <sub>R</sub>	(Note1) ΔV <sub>R</sub> =V <sub>R</sub> -V <sub>o2</sub> , I <sub>o2</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.

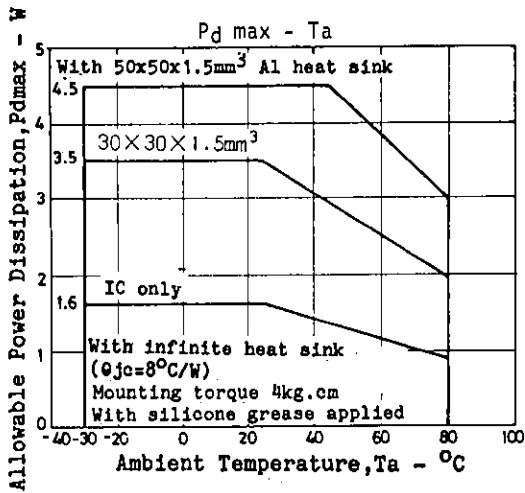
Note 2: V<sub>M</sub> is the voltage of V<sub>IN1</sub> at the time muting is turned OFF.

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

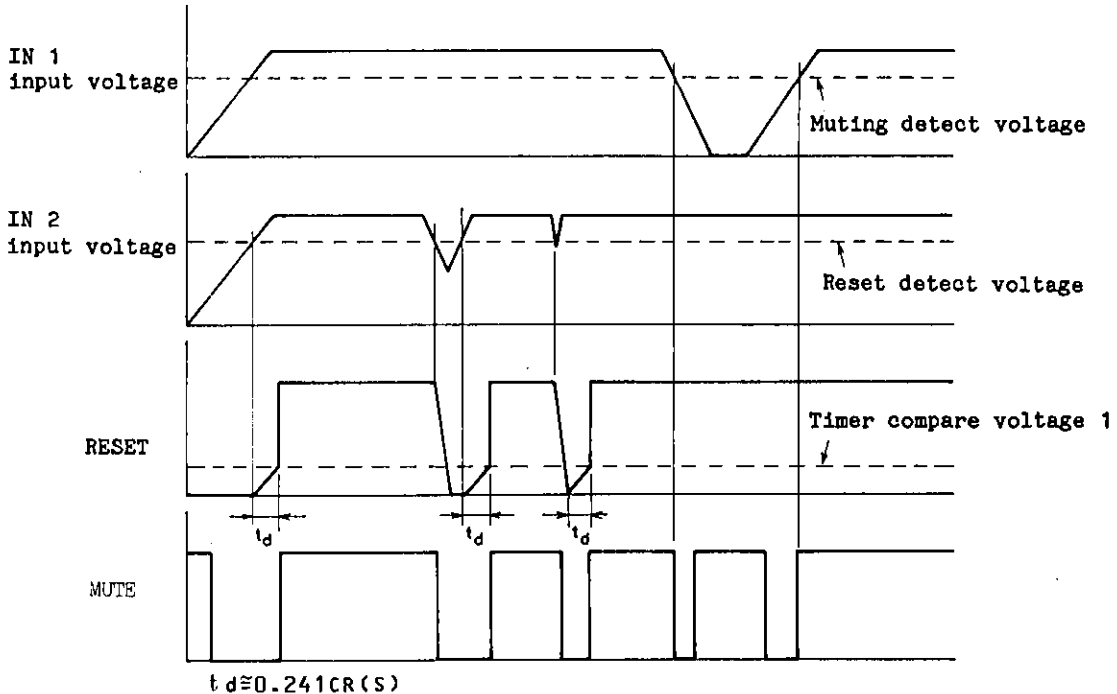


(Note) The reset delay time is set by R, C.

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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