

SANYO	NO.2300A	LA5667
	Multifunction Multiple Voltage Regulator	

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

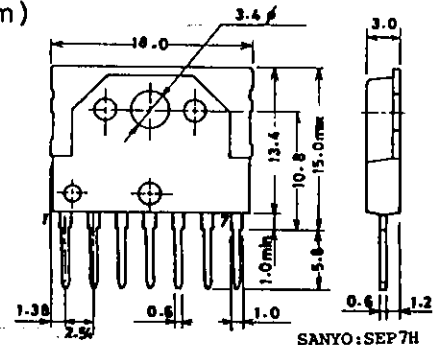
Operating Characteristics at Ta=25°C, $V_{IN1}=20V, V_{IN2}=10V$

			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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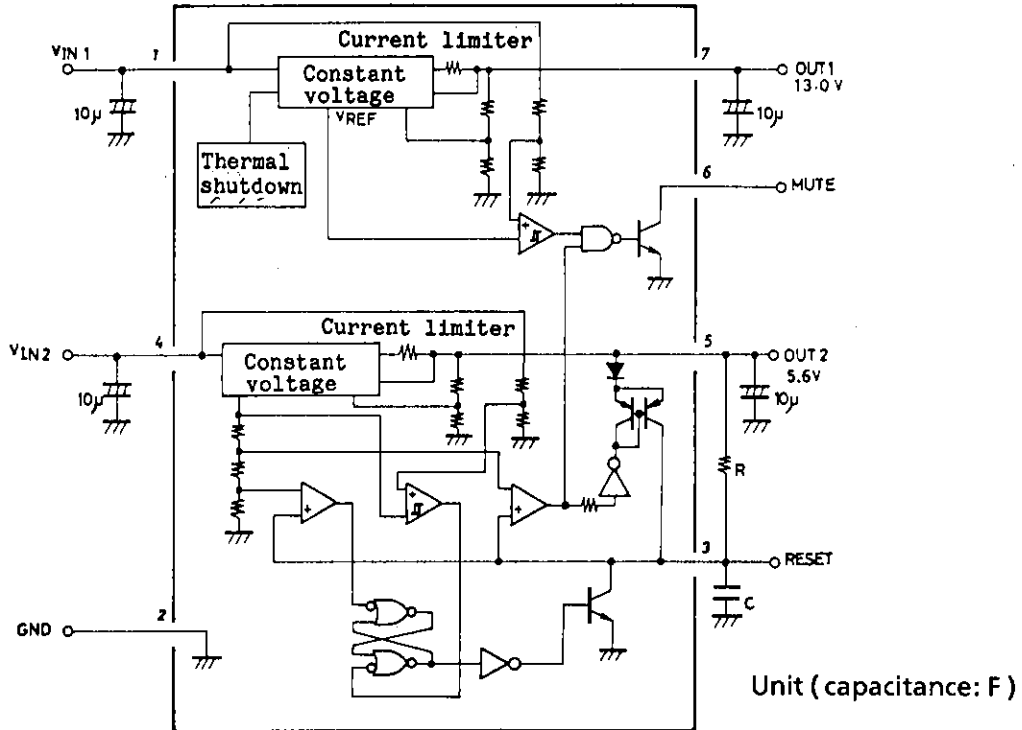
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			min	typ	max	unit
Input-Output Voltage Drop	V _{dr1}	I _o =200mA		1.6	2.5	V
	V _{dr2}	I _o =50mA		1.5	2.5	V
Reset Detect Voltage	ΔV _R	(Note1) ΔV _R =V _R -V _{o2} , I _{o2} =50mA	1.65	1.9	2.2	V
Reset Detect Hysteresis Voltage	ΔV _H		50	75	110	mV
Timer Compare Voltage	V _{C1}		1.0	1.2	1.4	V
	V _{C2}		0.06	0.13	0.18	V
Timer Input Bias Current	I _{TB}	(Note2)			250	nA
Muting Detect Voltage	ΔV _M	ΔV _M =V _M -V _{o1} , I _{o1} =200mA	1.0	1.5	2.0	V
Muting Output Voltage	V _{OMUTE}	I _{OMUTE} =5mA		0.1	0.15	V
Muting Detect Hysteresis Voltage	ΔV _{MH}		110	160	210	mV

Note 1: V_R is the voltage of V_{IN2} at the time reset is turned OFF.

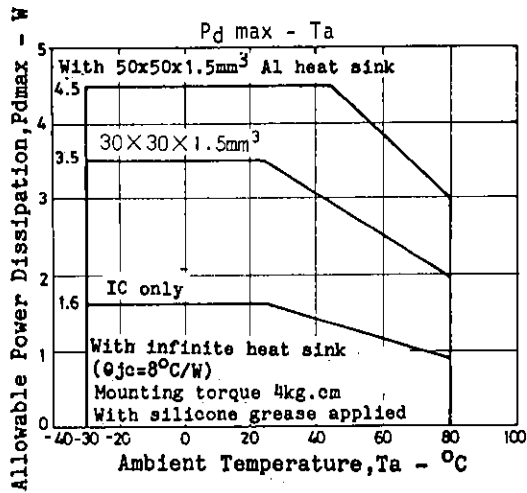
Note 2: V_M is the voltage of V_{IN1} at the time muting is turned OFF.

Equivalent Circuit Block Diagram, Pin Assignment, and Peripheral Circuit

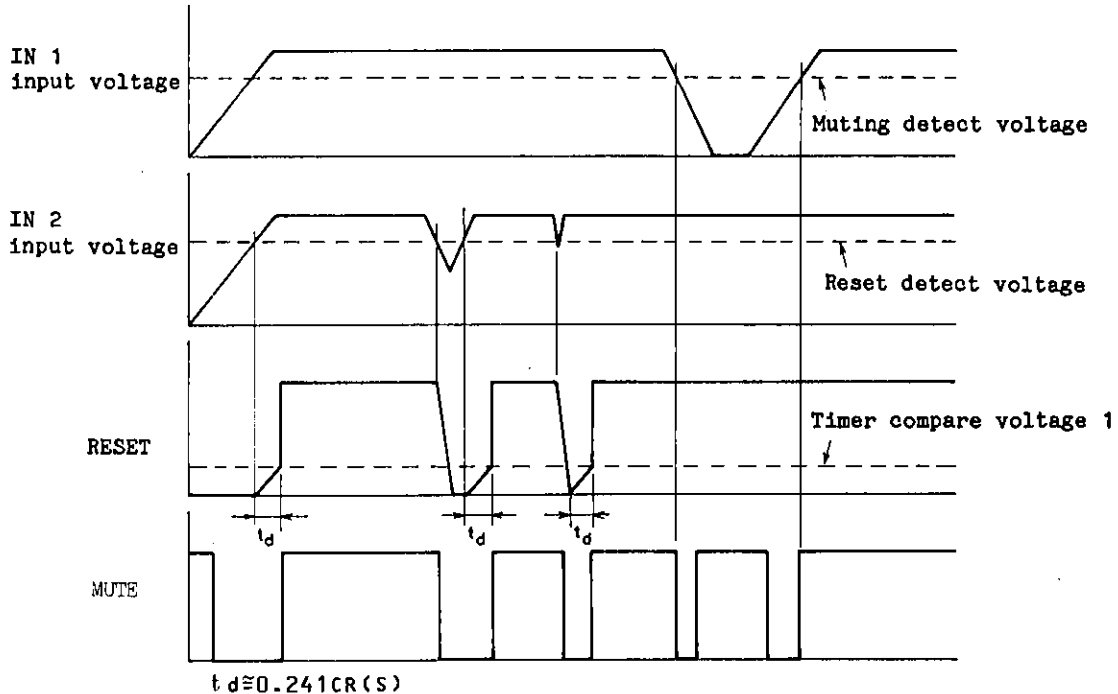


(Note) The reset delay time is set by R, C.

Pin No.	Name	Description
1	V _{IN1}	Input pin for 13.0V output line
2	GND	Ground
3	RESET	Reset delay time and output pin
4	V _{IN2}	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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