

AN5071

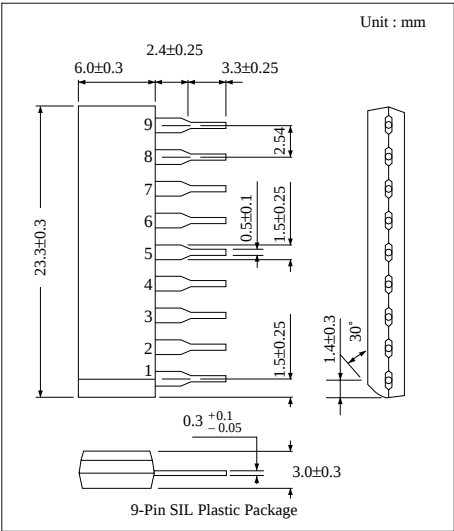
TV Tuner Band-Switch IC (31V-Voltage Regulator Built-in)

■ Overview

The AN5071 is the integrated circuit incorporating TV tuner band-switch circuits and 31V-power-supply circuit.

■ Features

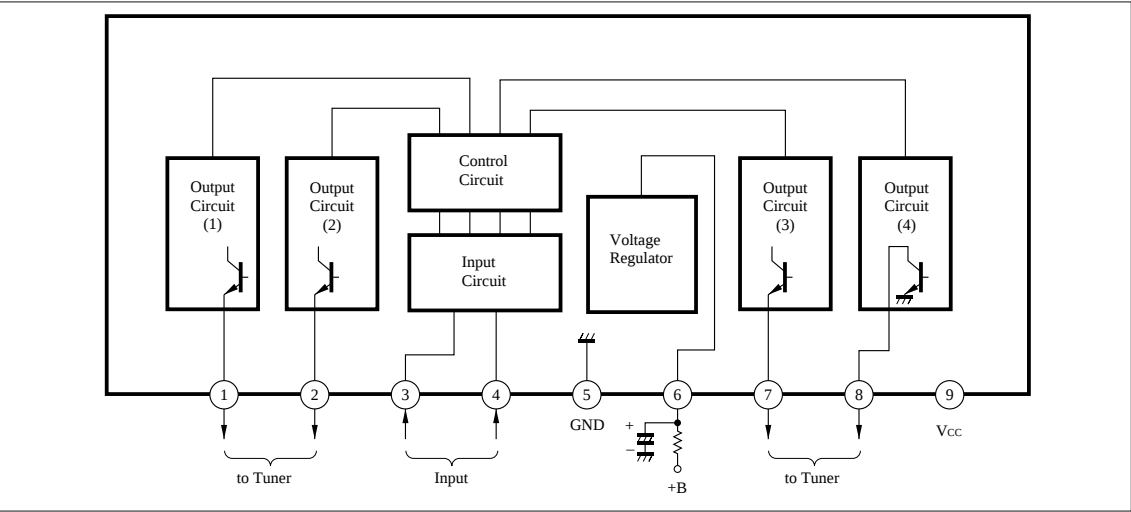
- Tuner band switch circuit with 31V-voltage regulator
- Usable for every tuner by suitable output combination



■ Pin Descriptions

Pin No.	Pin name
1	Output (1)
2	Output (2)
3	Input (1)
4	Input (2)
5	GND
6	31.5V supply voltage
7	Output (3)
8	Output (4)
9	V _{CC}

■ Block Diagram



■ Absolute Maximum Ratings (Ta=25°C)

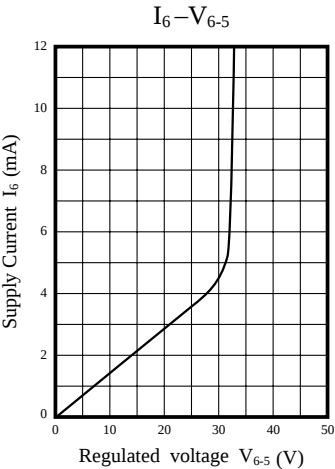
Parameter	Symbol	Rating	Unit
Supply voltage	V_{CC}	+18	V
Supply current	I_6	+14	mA
Power dissipation	P_D	620	mW
Operating ambient temperature	T_{opr}	- 20 to + 70	°C
Storage temperature	T_{stg}	- 55 to +150	°C

■ Electrical Characteristics (Ta = 25°C)

Parameter	Symbol	Condition	min	typ	max	Unit
Input-threshold voltage	V_t	$V_{CC}=12V$	1.5	—	2.5	V
Input-threshold current	I_t	$V_{CC}=12V$	100	—	500	μA
Output-saturation voltage	$V_{CE(sat)}$	$V_{CC}=12V, I_o = -60mA$	—	0.3	0.8	V
Pin8 output-saturation voltage	$V_{CE(sat)}$	$V_{CC}=12V, I_8=20mA$	—	0.2	0.5	V
Voltage regulator	V_{6-5}	$V_{CC}=12V, I_6=10mA$	29.5	31.5	33.5	V
Regulated voltage ambient temperature dependency	V_{6-5}/T_a	$T_a = -20 \text{ to } +60^\circ C$	-1.0	0	1.0	mV/°C
Regulated voltage time drift	ΔV_{6-5}	Reference is the voltage at 5 sec. after SW. ON	—	—	±50	mV

■ Input/Output Related (Logic Table)

Input		Output				Remarks (Tuning Status)
Pin3	Pin4	Pin1	Pin2	Pin7	Pin8	
L	L	V_{CC}	open	open	L	UHF
H	L	open	V_{CC}	open	open	VHF-L
L	H	open	open	V_{CC}	L	VHF-H
H	H	open	open	open	open	—



■ Application Circuit

