

# DBL 2044

## TUNER BAND SELECTOR FOR TV SETS

The DBL 2044 is an IC for tuner band selection of electronic tuning type television set. This IC is used for producing the VHF channel "L" band power supply/VHF channel "H" band power supply/UHF channel power supply for tuner and the CATV power supply according to the band select signal of 2 input.

### FUNCTIONS

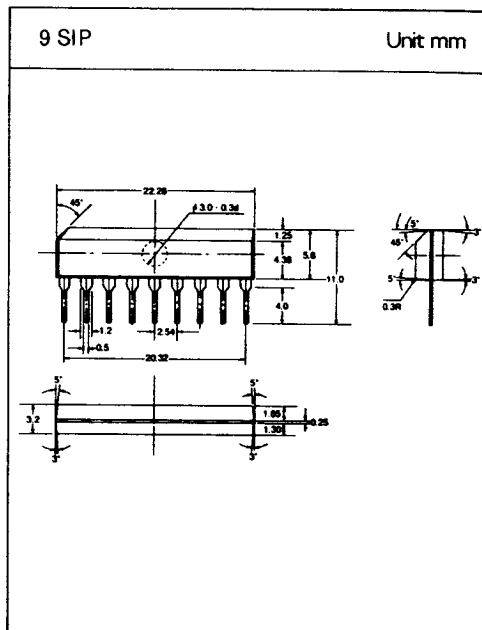
- VHF "L" band power supply output.
- VHF "H" band power supply output.
- UHF power supply output.
- CATV power supply output.

### FEATURES

- 2 inputs and 4 outputs.
- Output low saturation voltage : 0.25V  $T_{yp.}$ ,  $I_o = 60mA$
- Compact 9 PIN Single In-Line package.

### MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

Characteristic	Symbol	Rating	Unit
Supply Voltage	$V_3$ max	15	V
Load Current	$I_1$ max, $I_2$ max $I_7$ max, $I_8$ max	-60	mA
Supply Current $V_{CC2}$	$I_6$ max	10	mA
Allowable Power Dissipation	$P_d$ max	200	mW
Operating Temperature	$T_{opg}$	-20 ~ +85	$^\circ C$
Storage Temperature	$T_{stg}$	-55 ~ +125	$^\circ C$
Input Current	$I_3$ max, $I_4$ max	2	mA



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ELECTRICAL CHARACTERISTICS (Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Dissipation Current	$i_1, i_2, i_7, i_8$		—	—	60	mA
Output Saturatiuon Voltage	$V_1$ (sat) $V_2$ (sat) $V_7$ (sat) $V_8$ (sat)	$V_9 = 12V, i_6 = 5mA$ $i_0 = 60mA$	0	0.25	0.7	V
Input "H" Level Threshold Voltage	$V_{TH}$		—	—	3.0	V
Input "L" Level Threshold Voltage	$V_{TL}$		0.8	—	—	V
Output Leak Current	$i_1$ (leak) $i_2$ (leak) $i_7$ (leak) $i_8$ (leak)	$T_a \leq 70^\circ C$	—	—	50	$\mu A$

Note) Current Direction :  
 Current flowing into IC : PLUS (No sign)  
 Current flowing out of IC : MINUS (-)

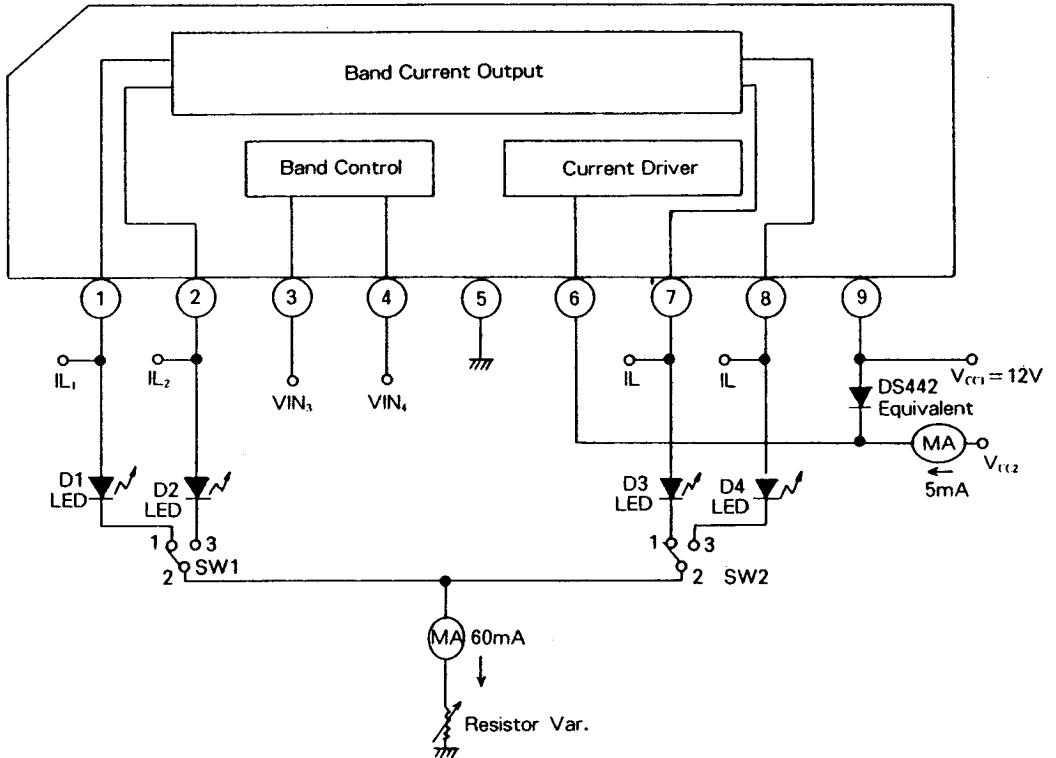
TRUTH TABLE

Input		Output			
PIN 3	PIN 4	PIN 1	PIN 2	PIN 7	PIN 8
L	L	H	Z	Z	Z
H	L	Z	H	Z	Z
L	H	Z	Z	H	Z
H	H	Z	Z	Z	H

Note) Z : High Impedance  
 Input Threshold Voltage :  $V_{TL} = 0.8V, V_{TH} = 3V$

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## □ TEST CIRCUIT

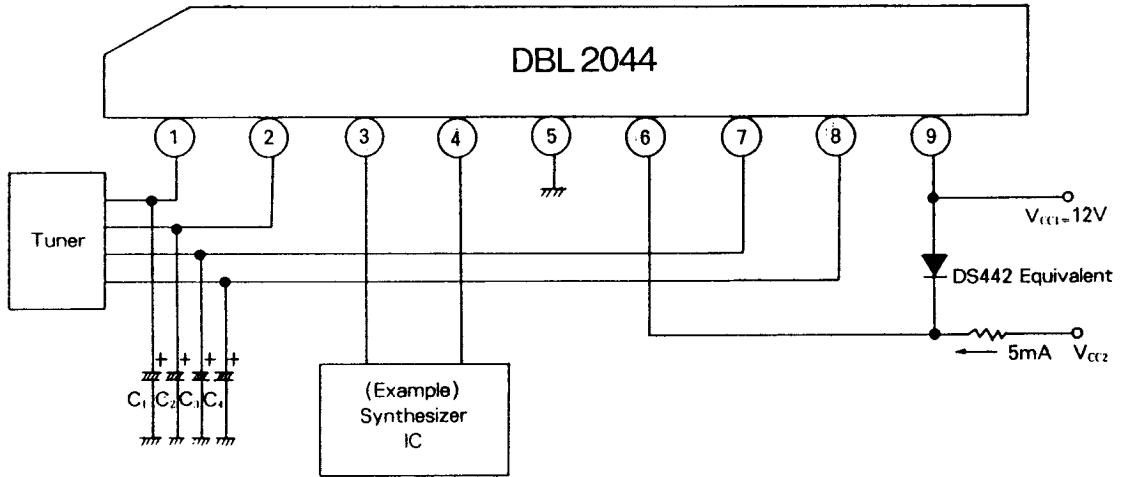


## □ SWITCH OPERATION

Characteristics	Switch	SW1	SW2	VIN3	VIN4	Test Point
$V_1$ (sat)		1	Open	L	L	$V_{9-1}$
$I_2, I_7, I_8$ (leak)		Open	Open	L	L	$I_{L2}, I_{L7}, I_{L8}$
$V_2$ (sat)		3	Open	H	L	$V_{9-2}$
$I_1, I_7, I_8$ (leak)		Open	Open	H	L	$I_{L7}, I_{L7}, I_{L8}$
$V_7$ (sat)		Open	1	L	H	$V_{9-7}$
$I_1, I_2, I_8$ (leak)		Open	Open	L	H	$I_{L1}, I_{L2}, I_{L8}$
$V_8$ (sat)		Open	3	H	H	$V_{9-7}$
$I_1, I_2, I_7$ (leak)		Open	Open	H	H	$I_{L1}, I_{L2}, I_{L7}$
$V_{TH}$		1	1	L	H-L	$V_4$ (D1 LED ON)
$V_{TL}$		1	1	L	L-H	$V_4$ (D3 LED ON)

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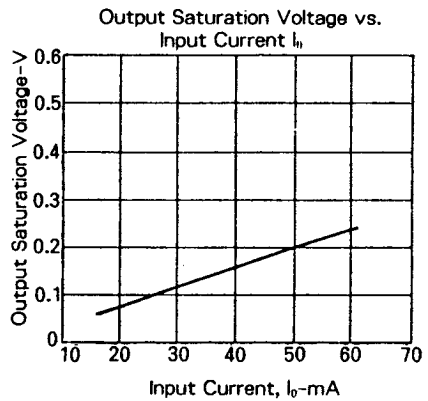
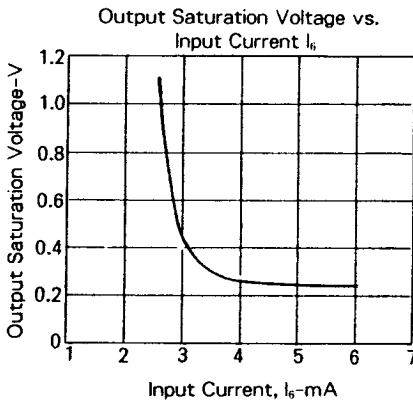
## APPLICATION CIRCUIT



Note) Proper cares in using the IC

1. When using a capacitive load, connect a diode across pins 6 and 9 as shown above.
2. The value of load capacitors  $C_1$ ,  $C_2$ ,  $C_3$ ,  $C_4$  must not exceed 22 $\mu$ F.

## TYPICAL PERFORMANCE CHARACTERISTICS



This datasheet has been download from:

[www.datasheetcatalog.com](http://www.datasheetcatalog.com)

Datasheets for electronics components.