

SANYO	No.730F	LB1450
	LED Tuning Indicator	

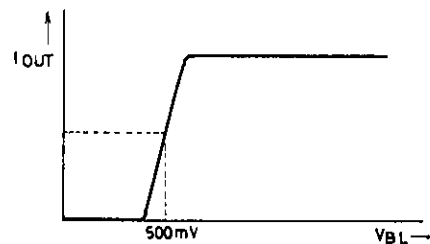
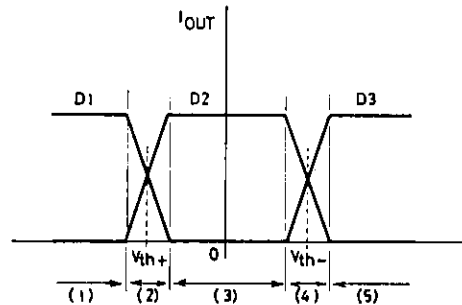
Use

Indicates tuning condition of FM receiver by means of 5 mode - 3 LED's

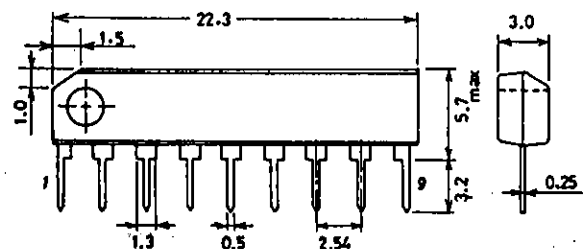
Features

1. 3 LED's display 5 mode tuning condition.
Since the LED's are driven under constant current supply, the LED current varies as shown below when two LED's are lighted on simultaneously. This causes their brightness to vary, and enables the dynamic indication.
2. Desired tuning width can be set as the threshold width of window comparator is variable externally.
3. No switching radiation can be made as LED current changes over linearly.
4. Blanking at station interval and AM reception is easy to set by blanking pin.
5. Direct interface can be made to IF IC using quadrature detector (ex. LA1231, LA1140, etc.)
6. Single-ended 9 pin packaged with small mounting area.

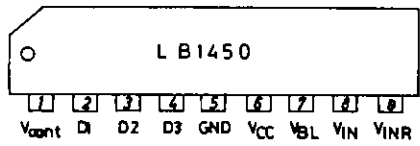
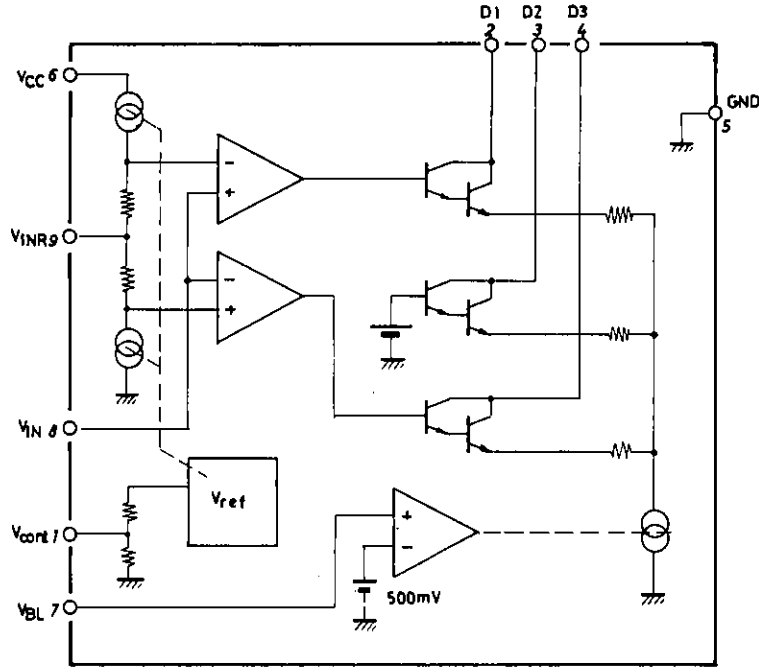
mode	LED light- ing mode	tuning condition
(1)	▶ ○ ◁	(-) detuned
(2)	▶● ◁	semituned
(3)	▷ ● ◁	tuned
(4)	▷ ● ◁	semituned
(5)	▷ ○ ◀	(+) detuned
(6)	▷ ○ ◁	lighted off



Package Dimensions 3017B
unit: mm



Equivalent Circuit Block Diagram and Pin Assignment



Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

Max. Supply Voltage	V_{CCmax}		18	V
Max. Input Voltage	V_{INR}	$V_{CC} > V_{INR}$	-0.3 to +16	V
	V_{IN}	$V_{CC} > V_{IN}$	-0.3 to +16	V
	V_{cont}		-0.3 to +4	V
	V_{BL}	$V_{CC} > V_{BL}$	-0.3 to +16	V
Max. Output Voltage	V_{out}	Pin2, 3, 4	16	V
Allowable Power Dissipation	P_{dmax}	$T_a=60^\circ\text{C}$	500	mW
Operating Temperature	T_{opr}		-20 to +70	$^\circ\text{C}$

Allowable Operating Conditions at $T_a=25^\circ\text{C}$

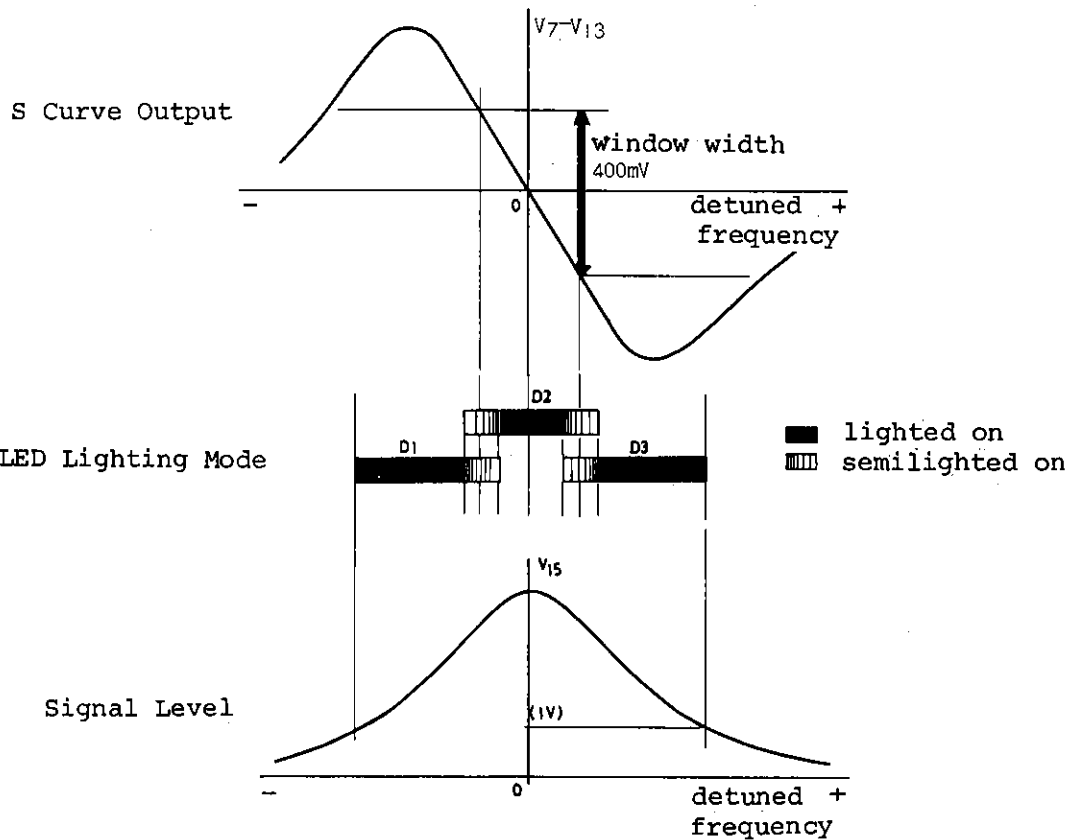
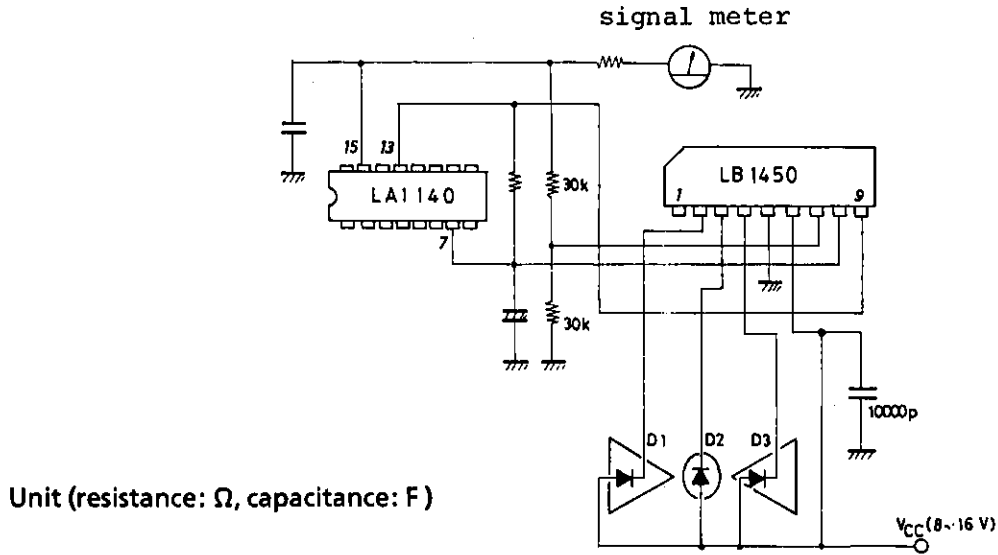
Supply Voltage	V_{CC}	8 to 16	V
Tuning Indicaition Voltage Width	V_T	200	mV

Electrical Characteristics at $T_a=25^\circ\text{C}$, $V_{CC}=12\text{V}$

		min	typ	max	unit	
Input Bias Current	I_{IN}	-2		0	μA	
	I_{INR}	-20		+20	μA	
	I_{INBL}	-2		0	μA	
Threshold Voltage	V_{th+}	150	200	250	mV	
	V_{th-}	-250	-200	-150	mV	
	V_w	30	50	100	mV	
	Simultaneous Lighting Width	$I_{OUT1}, I_{OUT2}, I_{OUT3}$	11	18	25	mA
Output Current	$V_{BL(L)}$	360	430	500	mV	
Blanking Threshold Voltage	$V_{BL(H)}$	410	500	550	mV	
	I_{OFF}			10	μA	
Output Leak Current	I_{CC}	LED current excluded	3.0	3.8	5.6	mA
Current Dissipation						

LB1450

Application : The case of window width 400mV typ. ($\pm 200\text{mV}$) and interstation blanking.



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