

SANYO	No.2061B	LB1475M
	2-Wire Type Wired Remote Controller	

Features

- . Capable of performing remote controls of 13 kinds due to 13 control outputs
- . Only 2 wires required between set and remote control box
- . On-chip one-shot multivibrator to reject chattering at the time of switch changeover (One-shot time constant is varied externally.)
- . Even if 2 or more switches are pushed simultaneously, first pushed switch's input only is effective because of internal memory.
- . Only one adjustment required
- . Capable of outputting with \overline{EN} (enable) pin at all times ($\overline{EN}=0V$. If one-shot time constant is not required, C pin=0V.)
- . Usable in indicator applications because of output capable of driving LED sufficiently

Absolute Maximum Ratings at Ta=25°C

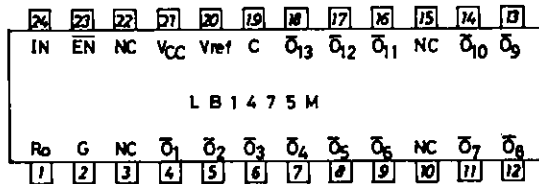
		Pin No.		unit
Maximum Supply Voltage	V_{CC}	21	-0.3 to +18	V
Output Current $\overline{O1}$ to $\overline{O13}$	$I_{OL\overline{O1}}$ to $\overline{O13}$	4 to 9 11 to 14 16 to 18	Output ON	30 mA
Output Current C	I_{OLC}	19	Output ON	10 mA
Allowable Power Dissipation	$P_{d\max}$		Ta=75°C	250 mW
Operating Temperature	T_{opr}			-30 to +75 °C
Storage Temperature	T_{stg}			-40 to +125 °C

Allowable Operating Conditions at Ta=25°C

		Pin No.		unit
Supply Voltage Range	V_{CC}	21	Sample Application Circuit 1	8.5 to 16 V
				(8.0)*
			Sample Application Circuit 2	8.0 to 16 V

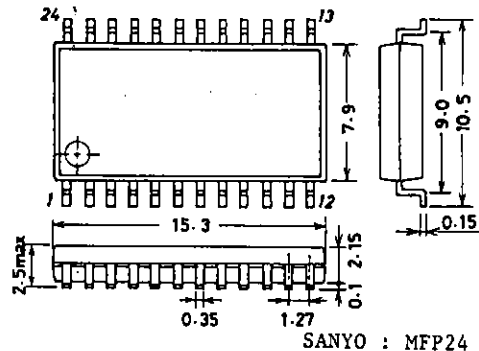
*: $V_{CC}=8V$ applies in case where adjustment is made with semifixed resistor so that $V_{RO}=7.6$ is obtained at $V_{CC}=9V$ in Sample Application Circuit 1.

Pin Assignment



Package Dimensions 3045B

unit: mm

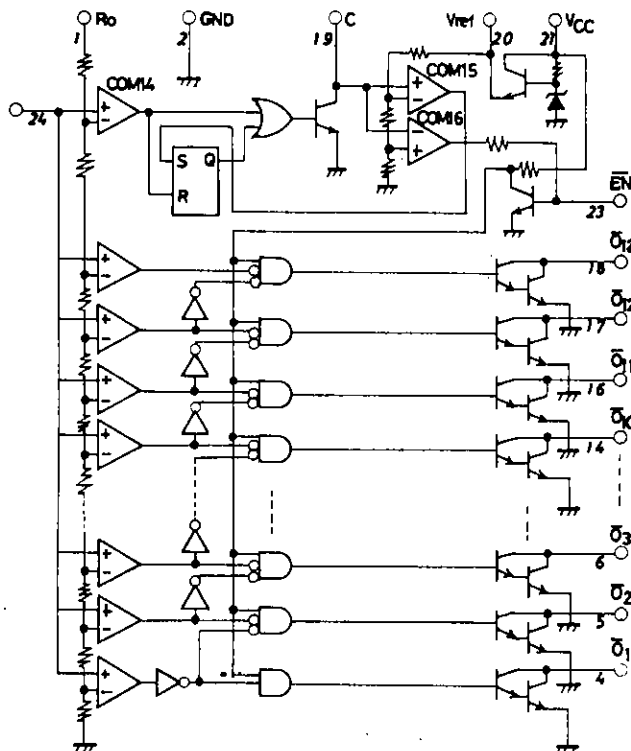


SANYO : MFP24

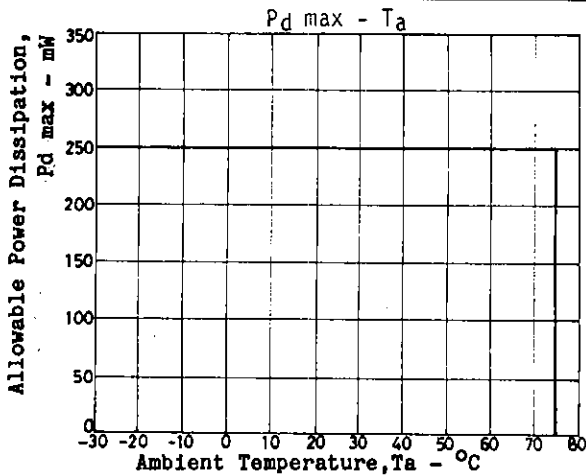
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Electrical Characteristics at $V_{CC}=9V, T_a=25^{\circ}C$	Pin No.	min	typ	max	unit
Input Bias Current I_{IN}	24 $V_{IN}=0V$	-1		0	μA
Output Saturation Voltage $\overline{O1}$ to $\overline{O13}$	$V_{sat\overline{O1}}$ to $\overline{O13}$		1.2	1.7	V
"	"		0.8	1.2	V
Output Leakage Current $\overline{O1}$ to $\overline{O13}$	$I_{OFF\overline{O1}}$ to $\overline{O13}$	0		10	μA
Comparator Level	$\overline{O1}$ V_{TO1}	4 $V_{RO}=7.6V$	1.515	1.6	1.685 V
"	$\overline{O2}$ V_{TO2}	5 "	1.915	2.0	2.085 V
"	$\overline{O3}$ V_{TO3}	6 "	2.32	2.4	2.48 V
"	$\overline{O4}$ V_{TO4}	7 "	2.72	2.8	2.88 V
"	$\overline{O5}$ V_{TO5}	8 "	3.125	3.2	3.275 V
"	$\overline{O6}$ V_{TO6}	9 "	3.525	3.6	3.675 V
"	$\overline{O7}$ V_{TO7}	11 "	3.93	4.0	4.07 V
"	$\overline{O8}$ V_{TO8}	12 "	4.33	4.4	4.47 V
"	$\overline{O9}$ V_{TO9}	13 "	4.735	4.8	4.865 V
"	$\overline{O10}$ V_{TO10}	14 "	5.135	5.2	5.265 V
"	$\overline{O11}$ V_{TO11}	16 "	5.54	5.6	5.66 V
"	$\overline{O12}$ V_{TO12}	17 "	5.94	6.0	6.06 V
"	$\overline{O13}$ V_{TO13}	18 "	6.345	6.4	6.455 V
Comparator Level Fall Reference Voltage	V_{TC14} V_{ref}	20 $V_{RO}=7.6V$	6.7	6.8	6.9 V
One-shot Multivibrator Threshold Voltage	V_{TC1}	$V_{ref}=7.2V$	0.617	1.055	V
"	V_{TC2}	"	3.97	5.03	V
Output Leakage Current C	I_{offC}	19 $V_C=3V$	-5	5	μA
Output Saturation Voltage C	V_{satC}	19 $I_{OLC}=100\mu A$		30	mA
\overline{EN} Pin Threshold Voltage	V_{TEN}	23 $V_{IN}=9V$	0.4	0.6	0.9 V
\overline{EN} Pin Flow-out Current	I_{OHEN}	23 $V_{RO}=7.6V$	40	80	160 μA
Internal Resistance	R_O	1	6.5	9.5	12.5 kohm
Current Dissipation	I_{CC}	21		5	9 mA

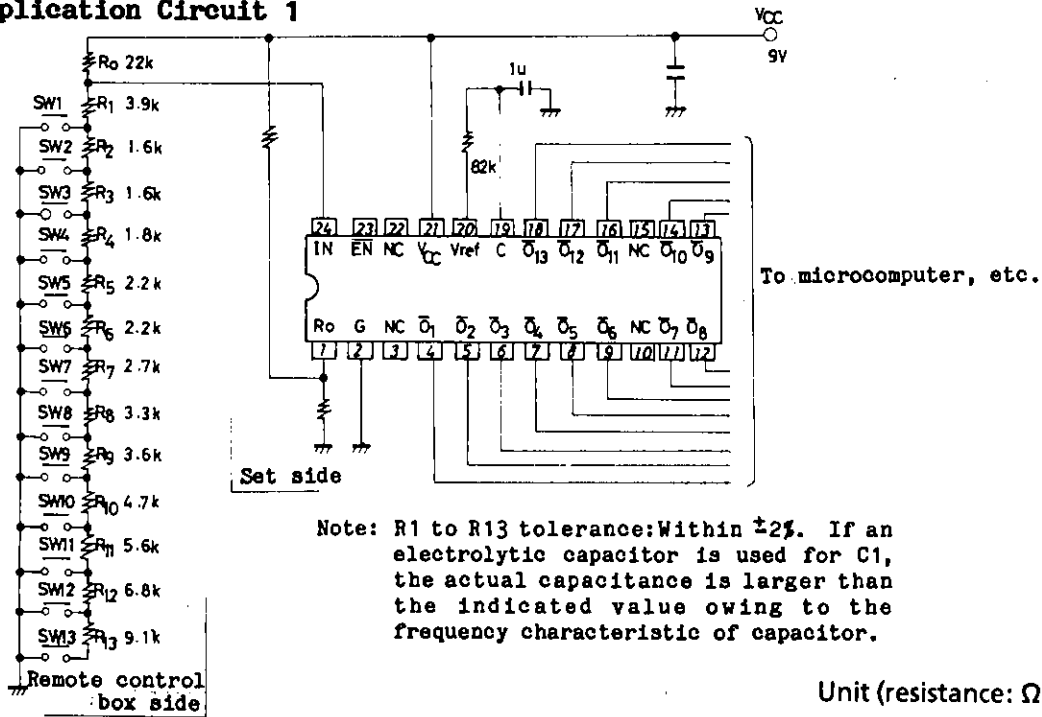
Equivalent Circuit Block Diagram



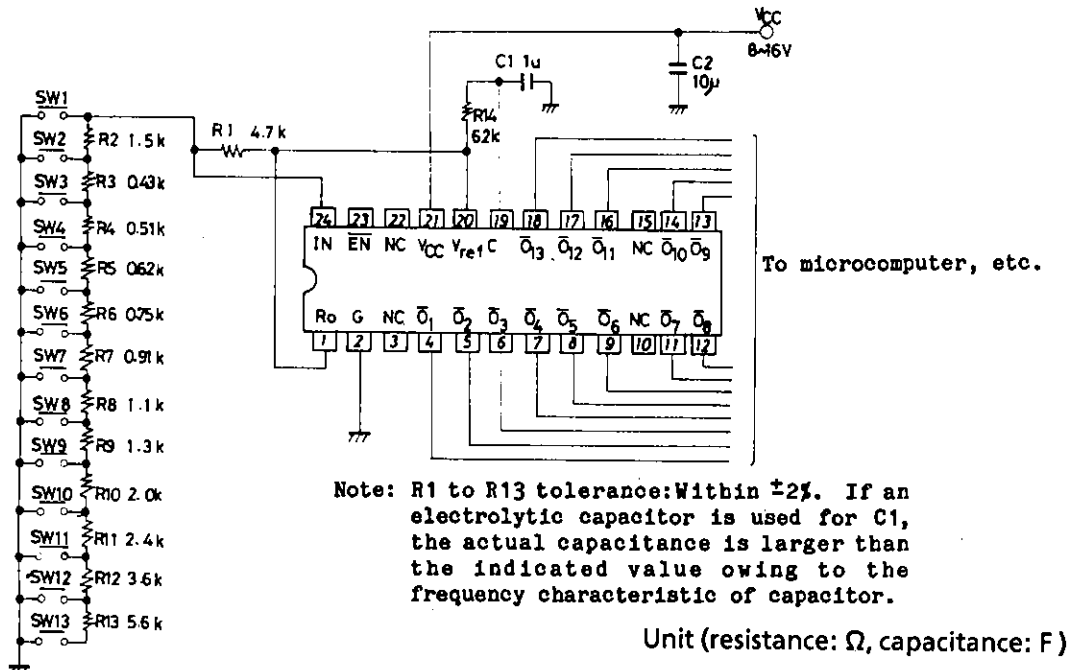
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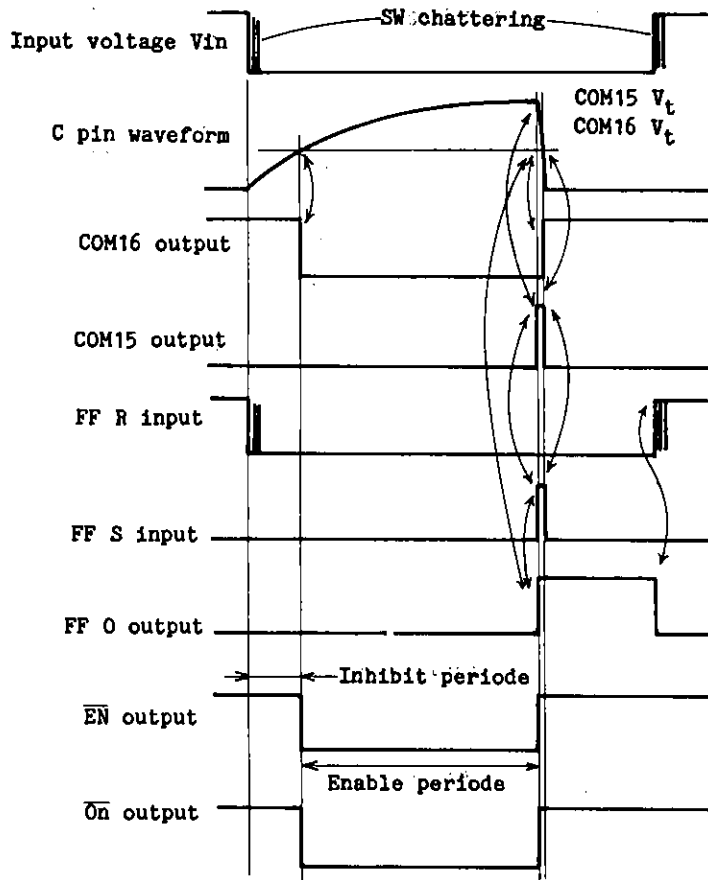
Sample Application Circuit 1



Sample Application Circuit 2



LB1475M Timing Chart



Note: Chattering and switch input not covered by enable period do not appear at output $\bar{O}n$. In other words, chattering and switch input covered by enable period appear at output $\bar{O}n$.

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