



LB1720

Thermal Head-Use, 8-Channel, Transistor Array

Overview

The LB1720 is an 8-channel transistor array that has a low output saturation voltage and can be driven by a CMOS IC. It is especially suited for use in thermal head, LED drive applications.

Features

- Common-emitter 8-channel transistor array.
- Low output saturation voltage (0.15V typ $I_O=100\text{mA}$).
- On-chip base current limiting resistors.
- Capable of being operated directly by TTL, CMOS IC.

Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Output supply voltage	V_{OUT}		-0.5 to +18	V
Output current	I_{OUT}	1 unit	200	mA
Input voltage	V_{IN}		-0.5 to +20	V
GND Pin current	I_{GND}		900	mA
Allowable power dissipation	$P_d \text{ max}$		900	mW
Operating temperature	T_{opr}		-20 to +75	$^\circ\text{C}$
Storage temperature	T_{stg}		-40 to +125	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output voltage	V_{OL1}	$I_O=100\text{mA}$, $V_{IN}=4.5\text{V}$	0.1	0.15	0.3	V
	V_{OL2}	$I_O=100\text{mA}$, $V_{IN}=4.5\text{V}$, I_O (other ch) =800mA	0.1	0.2	0.3	V
Output leakage current	I_{OH}	$V_{IN}=0\text{V}$, $V_O=18\text{V}$			10	μA
Input ON-state current	$I_{IN(on)}$	$V_{IN}=5.5\text{V}$		1.0	1.6	mA
Input ON-state voltage	$V_{IN(on)}$	$I_O=20\text{mA}$	2.0			V
Input OFF-state voltage	$V_{IN(off)}$	$I_O=10\mu\text{A}$			0.4	V

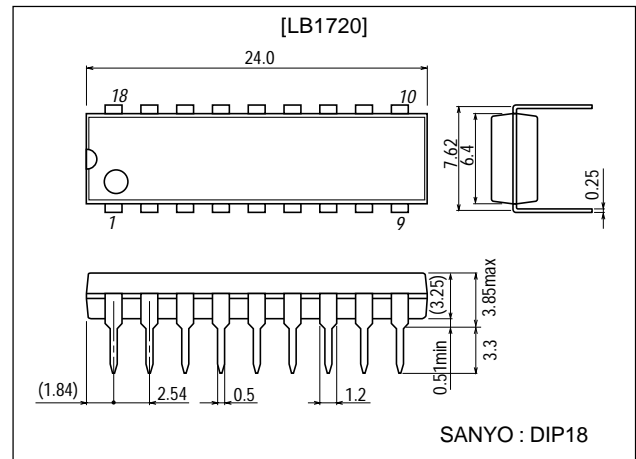
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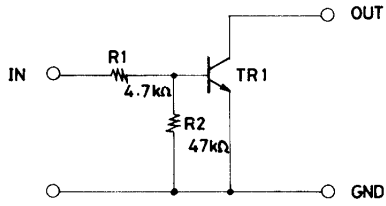
Package Dimensions

unit:mm

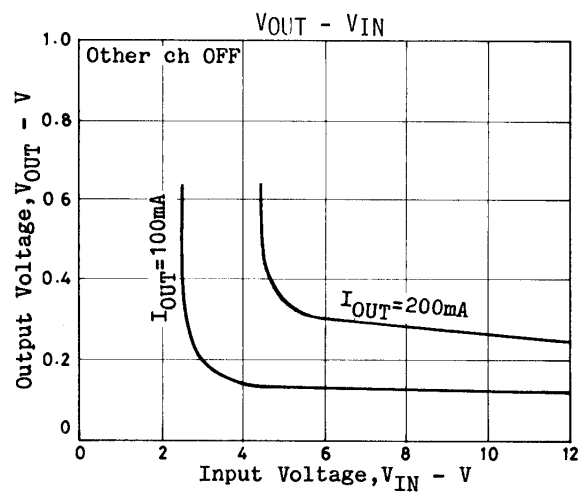
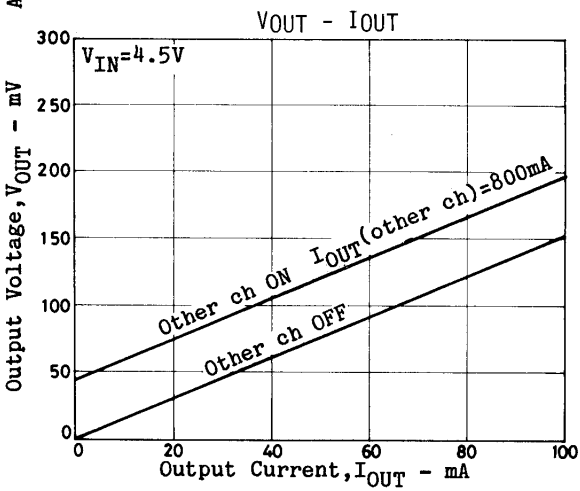
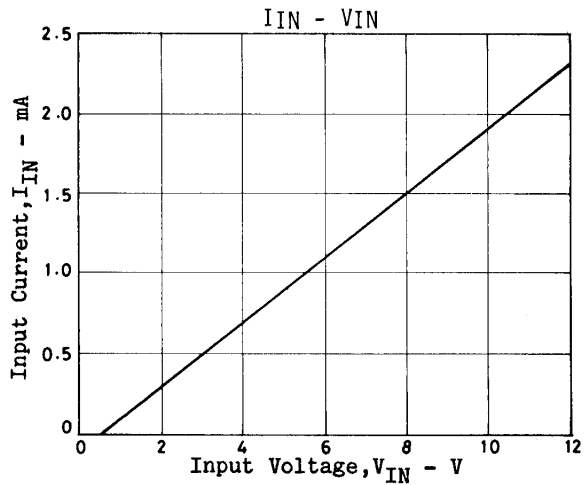
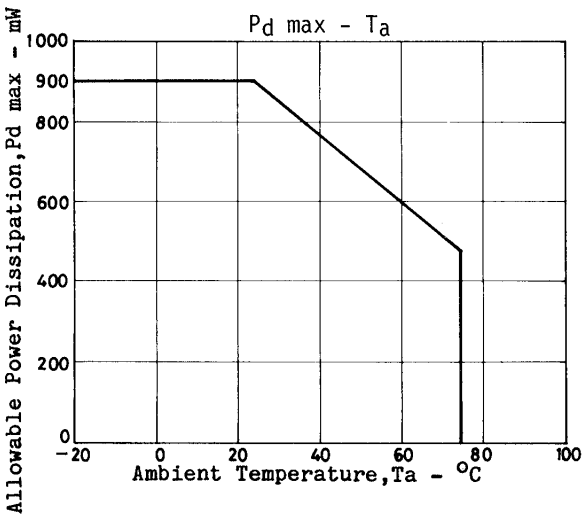
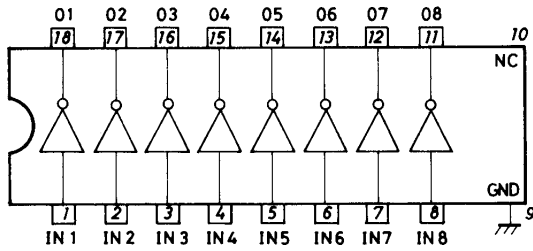
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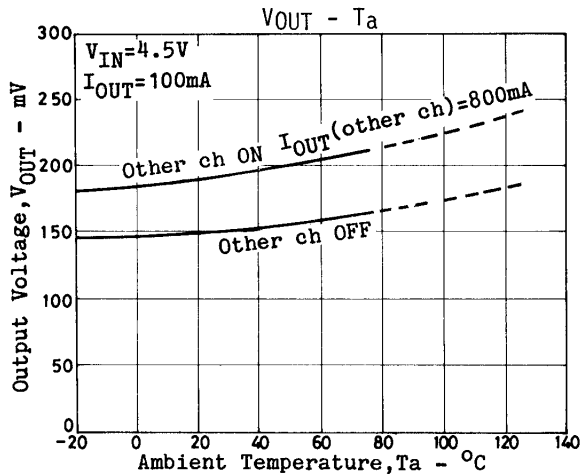


Equivalent Circuit (1 channel)



Equivalent Circuit Block Diagram





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