

SANYO

NO.2845A

LB1745**Octal High-Voltage, Current-Source Output Driver****Overview**

The LB1745 is an octal high-voltage current source output driver with active-low inputs. High output drive capability for low input current is achieved with NPN Darlington-pair output drivers.

The LA1745 sources up to 500mA from each driver at supply voltages of up to 50V. It is available in 18-pin plastic DIPs.

Features

- Eight independent Darlington-pair driver circuits
- High-voltage, high-current source
- Output clamp diodes
- Input protection diodes

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

			unit
Maximum Supply Voltage	V_{CC} max	-0.3 to +50	V
Applied Output Voltage	V_{OUT}	-0.3 to V_{CC}	V
Applied Input Voltage	V_{IN}	-0.3 to V_{CC}	V
Maximum Output Current	I_{OUT}	-500	Per driver mA
Clamp Diode Forward Current	I_F	-500	mA
Clamp Diode Reverse Voltage	V_R	-0.3 to +50	V
Allowable Power Dissipation	P_d max	1.13	W
Operating Temperature	T_{opr}	-20 to +75	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to +150	$^\circ\text{C}$

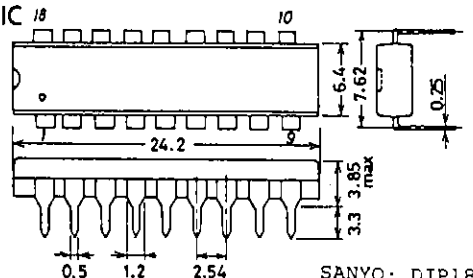
Allowable Operating Conditions at $T_a = 25^\circ\text{C}$

			unit
Power Supply Voltage Range	V_{CC}	4 to 50	V
Input ON-level Voltage	V_{ION}	$I_{OUT} = -350\text{mA}$ 0 to $V_{CC} - 2.5$	V
Input OFF-level Voltage	V_{IOFF}	$I_{OUT} \geq -50\mu\text{A}$ $V_{DD} - 0.7$ to V_{CC}	V

Electrical Characteristics at $T_a = 25^\circ\text{C}$, $V_{CC} = 5.0\text{V}$

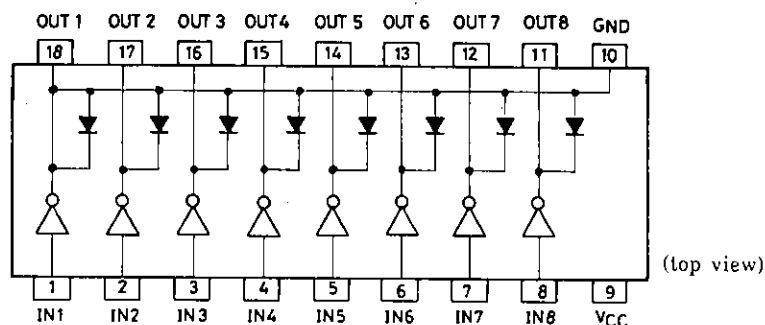
			min	typ	max	unit
Power Supply Current	I_{CCH}	All inputs with $V_{IN} = V_{CC} - 3.6\text{V}$		3.8	6	mA
	I_{CCL}	All inputs open			100	μA
Output Voltage	V_{OH1}	$V_{IN} = V_{CC} - 2.5\text{V}$, $I_{OUT} = -100\text{mA}$	$V_{CC} - 2.0$	$V_{CC} - 1.45$		V
	V_{OH2}	$V_{IN} = V_{CC} - 2.5\text{V}$, $I_{OUT} = -350\text{mA}$	$V_{CC} - 2.4$	$V_{CC} - 1.6$		V
Input Current	I_{IN1}	$V_{IN} = V_{CC} - 3.6\text{V}$	-0.5	-0.31		mA
	I_{IN2}	$V_{IN} = V_{CC} - 15\text{V}$	-3.0	-1.9		mA
Clamp Diode Forward Voltage	V_F	$I_F = -350\text{mA}$	-2.4	-1.2		V
Clamp Diode Reverse Voltage	V_R	$I_R = 100\mu\text{A}$	50			

Package Dimensions 3007A-D18IC
(unit : mm)

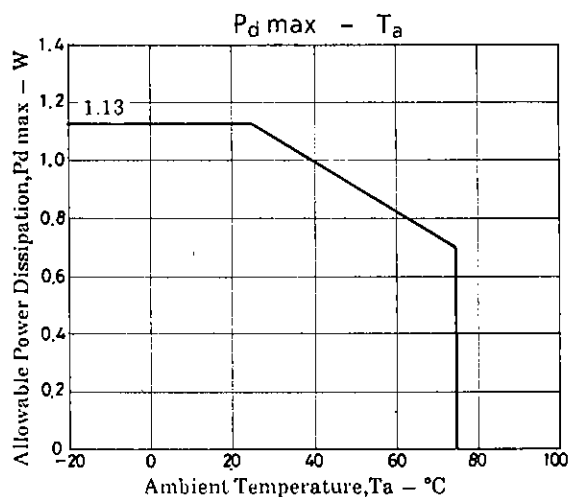
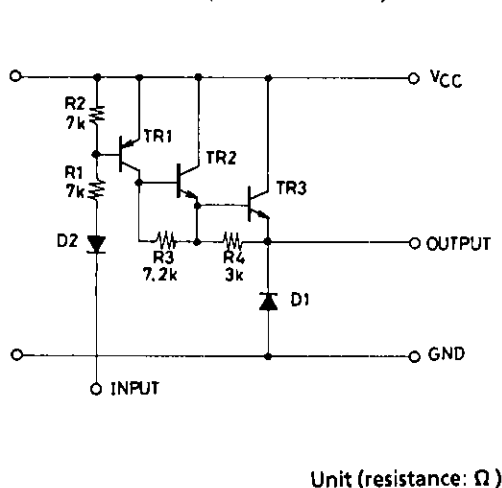


LB1745

Pin Assignment



Equivalent Circuit (For 1 channel)



- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:
 - ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use:
 - ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.