

SANYO**LB1642****Bidirectional Motor Driver with
Braking Function****Overview**

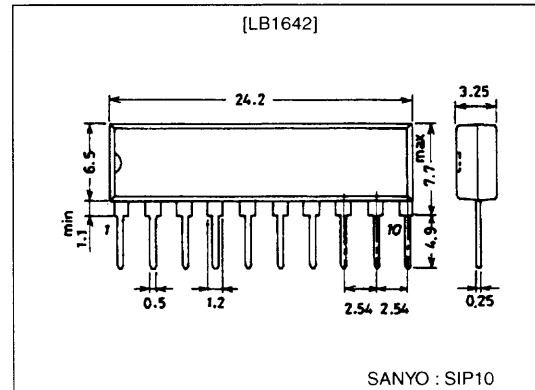
The LB1642 is a bidirectional motor driver IC. It is especially suited for use in motor drive applications where the arm control function of players and the auto reverse function of cassette decks are performed.

Features

- On-chip braking function.
- On-chip diode to absorb dash current.
- Wide operating voltage range (4 to 16V).
- Direct drivable with TTL.

Package Dimensions

unit:mm

3043A-SIP10**Specifications****Absolute Maximum Ratings at Ta = 25°C**

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	$V_{CC \text{ max}}$		18	V
Input voltage	V_{IN}		-0.3 to V_{CC}	V
Output current	$I_O \text{ max}$	$t=5\text{ms}$, Cycle=0.2Hz or less	0.7	A
Allowable power dissipation	$P_d \text{ max}$		1.0	W
Operating temperature	T_{opr}		-25 to +75	°C
Storage temperature	T_{stg}		-65 to +125	°C

Allowable Operating Conditions at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage	V_{CC}		4 to 16	V
High-level input voltage	V_{IH}		2 to V_{CC}	V
Low-level input voltage	V_{IL}		-0.3 to +0.4	V
Output current	I_O		-100 to +100	mA
Forward reverse inhibit time	t_{OFF}		10 or more	μs

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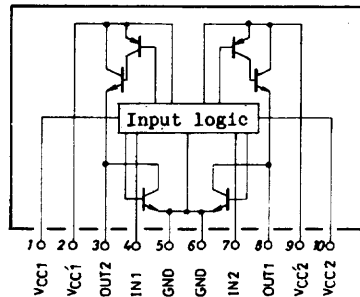
73098HA (KT)/N3093TS/9087KI/D163/N173K1, TS No.1358-1/3

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
High-level output voltage 1	V_{OH1}	V_{I1} or $V_{I2}=2\text{V}$, $I_O=-50\text{mA}$	11.0			V
High-level output voltage 2	V_{OH2}	V_{I1} or $V_{I2}=2\text{V}$, $I_O=-100\text{mA}$	10.9			V
Low-level output voltage 1	V_{OL1}	V_{I1} or $V_{I2}=2\text{V}$, $I_O=50\text{mA}$			0.3	V
Low-level output voltage 2	V_{OL2}	V_{I1} or $V_{I2}=2\text{V}$, $I_O=100\text{mA}$			0.35	V
Interoutput voltage	$V_{O1}-V_{O2}$	V_{I1} or $V_{I2}=2\text{V}$, $I_O=\pm 100\text{mA}$	10.6			V
Input current	I_I	$V_I=2\text{V}$	70		200	μA
Output leakage current	I_O leak	$V_{CC}=V_{CC'}=18\text{V}$, $V_O=0\text{V}$, $V_{IN1}=V_{IN2}=0\text{V}$, $V_O=18\text{V}$			± 100	μA
Current drain	I_{CC}	$V_{IN1}=2\text{V}$ or $V_{IN2}=2\text{V}$, $V_{CC}=V_{CC'}=16\text{V}$			30	mA
		$V_{IN1}=V_{IN2}=2\text{V}$, $V_{CC}=V_{CC'}=16\text{V}$			60	mA

Control Mode

Input		Output		Remarks
1	2	1	2	
0	0	-	-	Open
1	0	1	0	Forward drive
0	1	0	1	Reverse drive
1	1	0	0	Braking

Equivalent Circuit Block Diagram**Sample Application Circuit**