

**SANYO**

No.3298

**LB1730****High-Voltage, High-Current,  
Darlington Driver****Functions and Features**

- Four independent high-voltage (85V), high-current (1.5A) Darlington driver
- On-chip spark killer diode
- Capable of being operated direct by 5V TTL
- NPN input high-active type

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

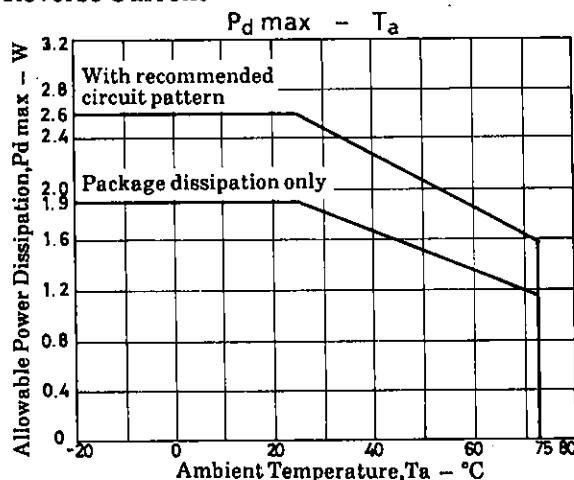
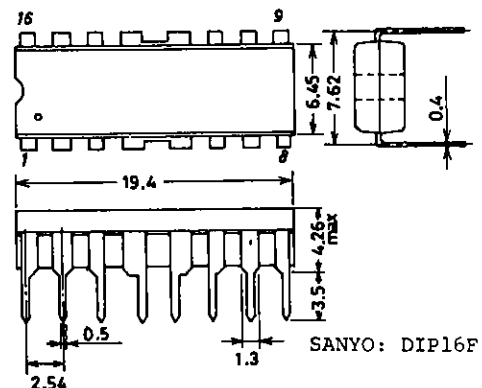
			unit
Maximum Supply Voltage	$V_{CC}$ max	85	V
Applied Output Voltage	$V_{OUT}$	85	V
Applied Input Voltage	$V_{IN}$	15	V
Output Current	$I_{OUT}$	1.5	A
Spark Killer Diode	$I_{FS}$	1.5	A
Forward Current			
Allowable Power Dissipation	$P_d$ max (With recommended circuit board pattern; 2.6W)	1.9	W
Operating Temperature	$T_{opr}$	-20 to +75	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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

			unit
Applied Output Voltage	$V_{OUT}$	85	V
Input ON-Level Voltage	$V_{IN\ on}$ $I_{OUT}=1.0\text{A}$	2.0 to 15	V
Input OFF-Level Voltage	$V_{IN\ off}$ $I_{OUT}\leq 30\mu\text{A}$	-0.3 to +0.3	V

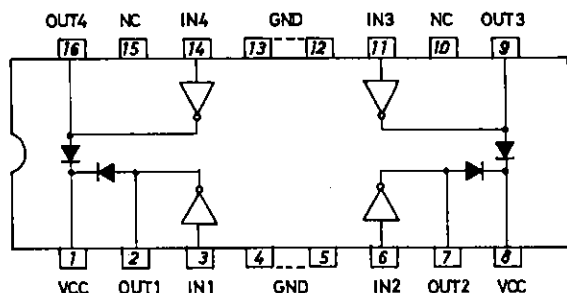
**Electrical Characteristics at  $T_a = 25^\circ\text{C}$** 

			min	typ	max	unit
Output Saturation Voltage	$V_o\ sat1$	$V_{IN}=5.0\text{V}, I_{OUT}=0.5\text{A}$			1.2	V
	$V_o\ sat2$	$V_{IN}=5.0\text{V}, I_{OUT}=1.0\text{A}$			1.5	V
	$V_o\ sat3$	$V_{IN}=5.0\text{V}, I_{OUT}=1.5\text{A}$			2.0	V
Output Sustain Voltage	$V_o\ sus$	$I_{OUT}=100\text{mA}$	85			V
Input Current	$I_{IN}$	$V_{IN}=5.0\text{V}$		11	15	mA
Spark Killer Diode	$V_{FS}$	$I_{FS}=1.5\text{A}$			3.0	V
Forward Voltage						
Spark Killer Diode	$I_{RS}$	$V_{CC}=85\text{V}, V_{OUT}=0\text{V}$			30	$\mu\text{A}$
Reverse Current						

**Package Dimensions 3054A-D16FIC  
(unit : mm)**

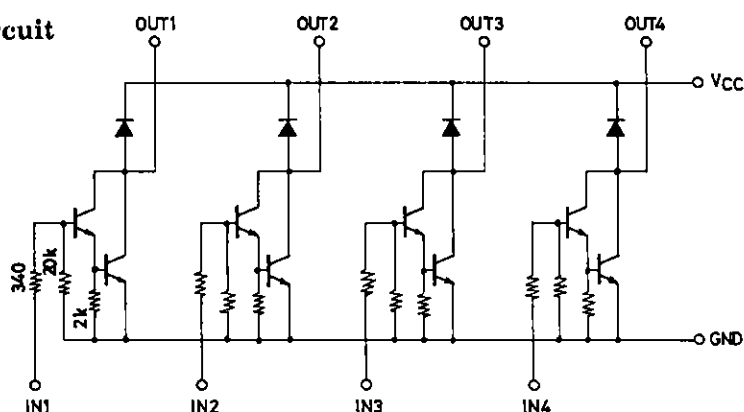
**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**  
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

## Pin Assingment

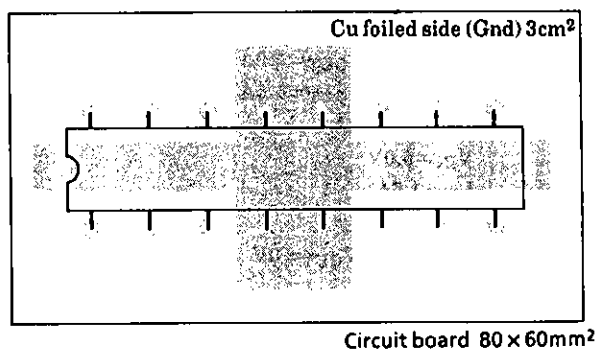


Note) •  $V_{CC}$  (pins 1 and 8) are shorted internally  
 • Do not use NC pin.

## Equivalent Circuit



## Sample Printed Pattern Circuit



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