Ordering number: EN1903D

Monolithic Digital IC

NO.1903D

LB1235

High-Voltage, High-Current Darlington Driver

Functions and Features

- 4-channel, high-voltage (65V), high-current (1.5A) Darlington driver
- On-chip spark killer diodes
- Capable of being direct driven with 5V-operated TTL
- NPN input high-active type

Absolute Maximum Ratings at Ta=25°C

			unit
Maximum Supply Voltage	V_{CC}max	65	V
Output Supply Voltage	V_{OUT}	65	V
Input Supply Voltage	V_{IN}	15	V
Output Current	I_{OUT}	1.5	A
Spark Killer Diode Forward Current	$I_{F(S)}$	1.5	A
Allowable Power Dissipation	Pdmax	1.9*	W
Operating Temperature	Topr	-20 to +75	°C
Storage Temperature	Tstg	-55 to +150	°C

*Mounted on the recommended printed circuit board : 2.6W

Allowable Operating Conditions at Ta=25°C

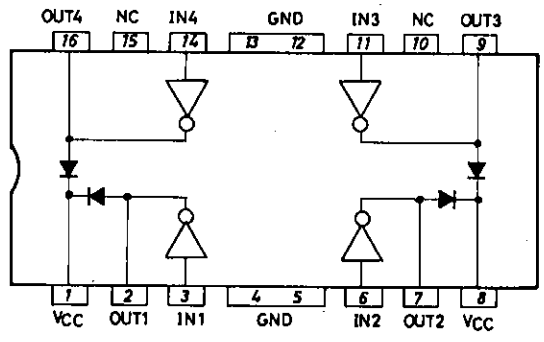
				unit
Output Supply Voltage	V_{OUT}		65	V
Input "H" Level Voltage	V_{IH}	I_{OUT}≦1.0A	2.0 to 15	V
Input "L" Level Voltage	V_{IL}	I_{OUT}≦30μA	-0.3 to +0.3	V

Electrical Characteristics at Ta=25°C

			min	typ	max	unit
Output Saturation Voltage	$V_{o(sat1)}$	V_{IN}=5.0V, I_{OUT}=0.5A			1.2	V
	$V_{o(sat2)}$	V_{IN}=5.0V, I_{OUT}=1.0A			1.5	V
	$V_{o(sat3)}$	V_{IN}=5.0v, I_{OUT}=1.5A			2.0	V

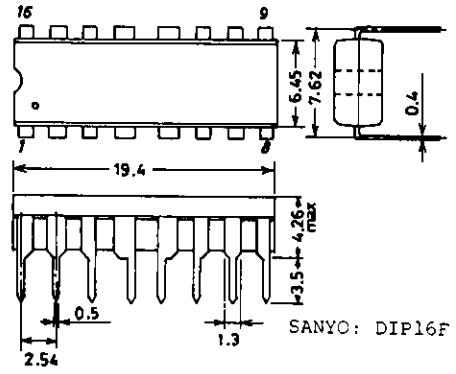
Continued on next page.

Pin Assignment



(Note) V_{CC} (Pin 1 and 6) is shorted internally.
Do not use NC pin.

Package Dimensions 3054A-D16FIC
(unit : mm)

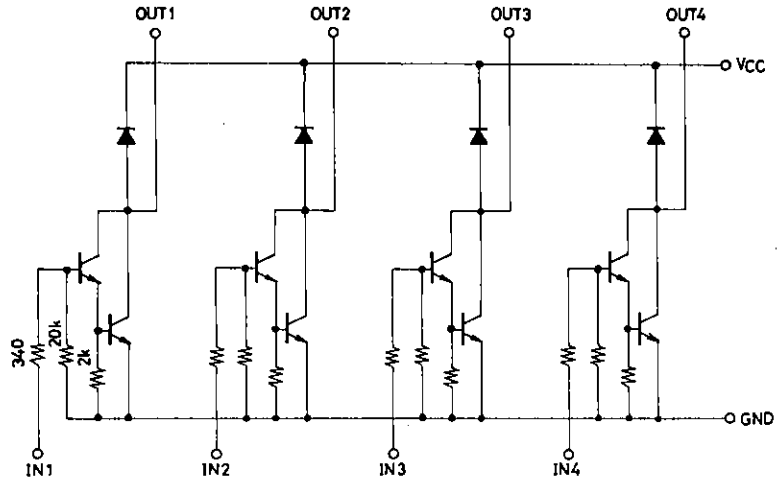


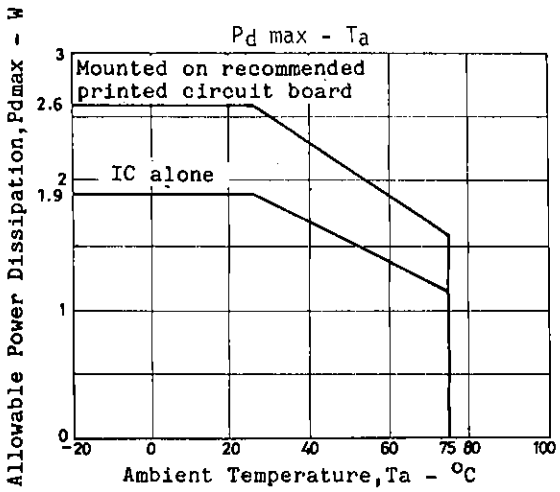
Continued from preceding page.

			min	typ	max	unit
Output Sustain Voltage	$V_{O(sus)}$	I_{OUT}=100mA	65			V
Input Current	I_{IN}	V_{IN}=5.0V		11	15	mA
Spark Killer Diode Forward Voltage	$V_{F(s)}$	$I_{F(s)}$=1.5A			3.0	V
Spark Killer Diode Reverse Current	$I_{R(s)}$	V_{CC}=65V, V_{OUT}=0V			30	μA

Equivalent Circuit

Unit (resistance: Ω)





Recommended Printed Circuit Pattern

(Bottom View) Board (80 x 60mm²)