



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 _{CCmax} | 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 | P _{dmax} | 1.9* | W |
| Operating Temperature | T _{opr} | -20 to +75 | °C |
| Storage Temperature | T _{stg} | -55 to +150 | °C |

*Mounted on the recommended printed circuit board : 2.6W

Allowable Operating Conditions at Ta=25°C

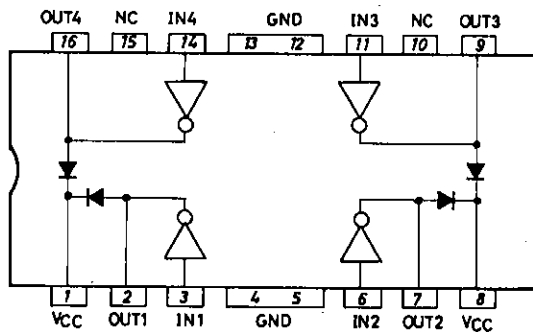
| | | | unit |
|-------------------------|------------------|--|------|
| Output Supply Voltage | V _{OUT} | 65 | V |
| Input "H" Level Voltage | V _{IH} | I _{OUT} =1.0A 2.0 to 15 | V |
| Input "L" Level Voltage | V _{IL} | I _{OUT} =30µA -0.3 to +0.3 | V |

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 |

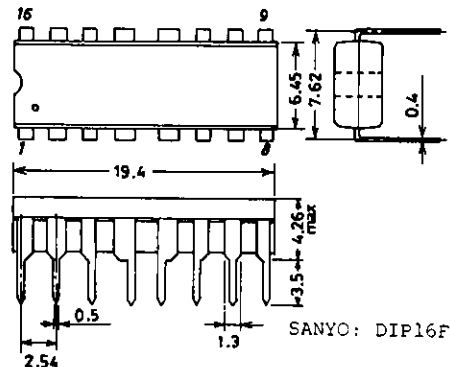
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Pin Assignment



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

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

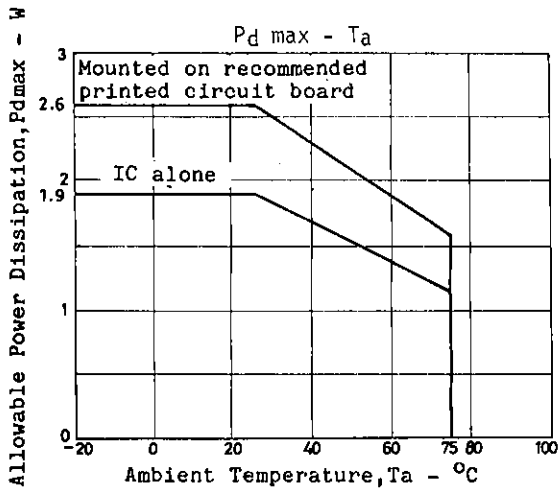
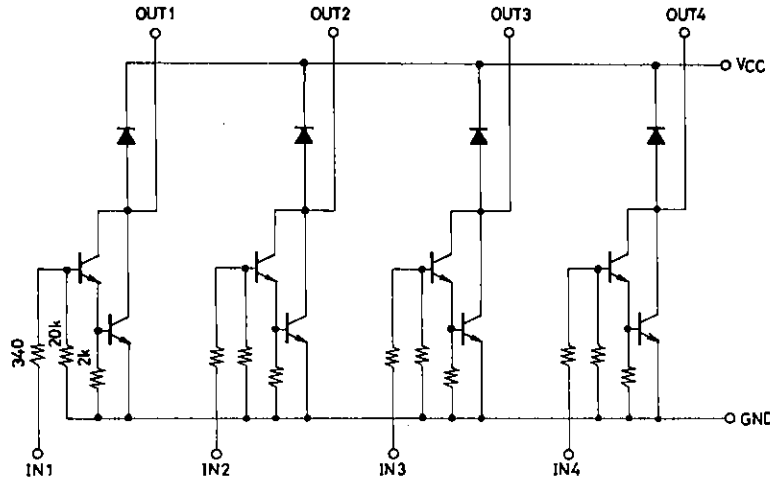


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| | | | min | typ | max | unit |
|------------------------------------|--------------|--------------------------|-----|-----|-----|---------|
| Output Sustain Voltage | $V_{O(sus)}$ | $I_{OUT}=100mA$ | 65 | | | V |
| Input Current | I_{IN} | $V_{IN}=5.0V$ | | 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

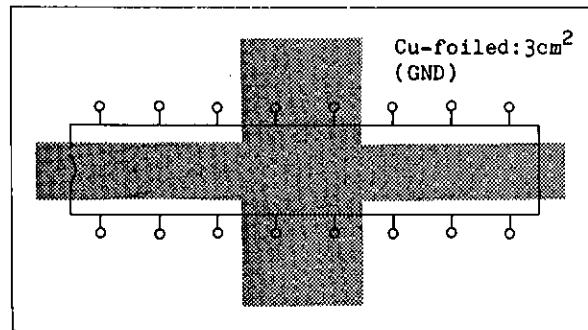
Unit (resistance: Ω)



Recommended Printed Circuit Pattern

(Bottom View)

Board (80 x 60mm²)



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