Ordering number: EN 1831C

Monolithic Digital IC

NO.1831C

LB1205

High-Voltage, High-Current Darlington Driver

Functions and Features

- 4-unit, high-voltage (65V), high-current (1.5A) Darlington driver
- PNP input type (Low active)
- On-chip spark killer diodes
- On-chip input protection diodes
- Capable of being driven directly from 5V-operated CMOS, TTL

Absolute Maximum Ratings at Ta=25°C

				unit
Maximum Supply Voltage	V_{DD}max		7.0	V
	V_{CC}max		62	V
Output Supply Voltage	$V_o$max		65	V
Input Supply Voltage	V_{IN}max	$V_{IN} \geqq$ Gnd	V_{DD}-7.0 to V_{DD}+10.0	V
Output Current	$I_o$max		1.5	A
Spark Killer Diode Forward Current	I_{Fs}		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			2.6	W

Allowable Operating Conditions at Ta=25°C

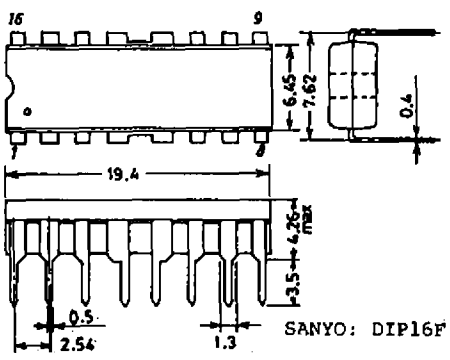
				unit
Supply Voltage Range	V_{DD}		3.0 to 7.0	V
Input "ON" Level Voltage	V_{INon}	$V_{IN} \geqq$ Gnd, Io=1.0A	V_{DD}-7.0 to V_{DD}-2.6	V
Input "OFF" Level Voltage	V_{INoff}	Io≦30μA	V_{DD}-0.3 to V_{DD}+10.0	V

Electrical Characteristics at Ta=25°C, V_{DD}=5.0V

			min	typ	max	unit
Output Saturation Voltage	V_{osat1}	V_{IN}=V_{DD}-5.0V, Io=0.5A			1.2	V
	V_{osat2}	" , Io=1.0A			1.5	V
	V_{osat3}	" , Io=1.5A			2.0	V
Output Sustain Voltage	V_{osus}	Io=100mA	65			V
Input Current	I_{IN}	V_{DD}=7.0V, V_{IN}=V_{DD}-7.0V			1.0	mA
Spark Killer Diode Forward Voltage	V_{Fs}	I_{Fs}=1.5A			3.0	V
Spark Killer Diode Reverse Current	I_{Rs}	V_{CC}=62V, Vo=0V			30	μA

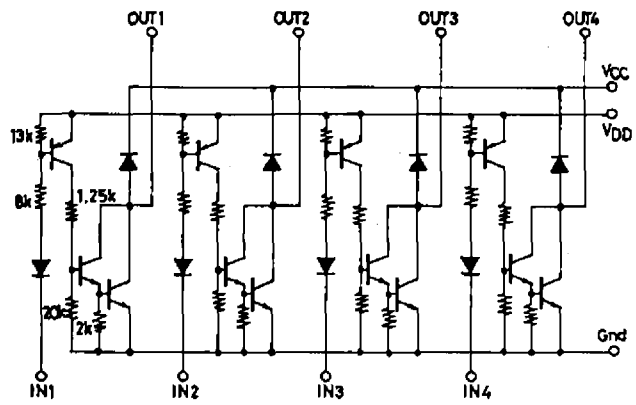
Package Dimensions 3054A

(unit : mm)



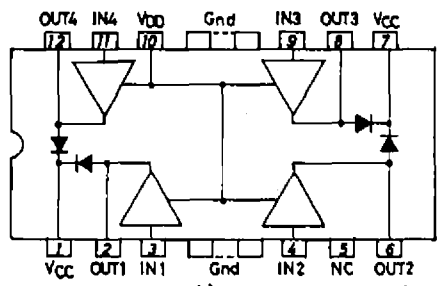
SANYO Electric Co.,Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10,1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

Equivalent Circuit

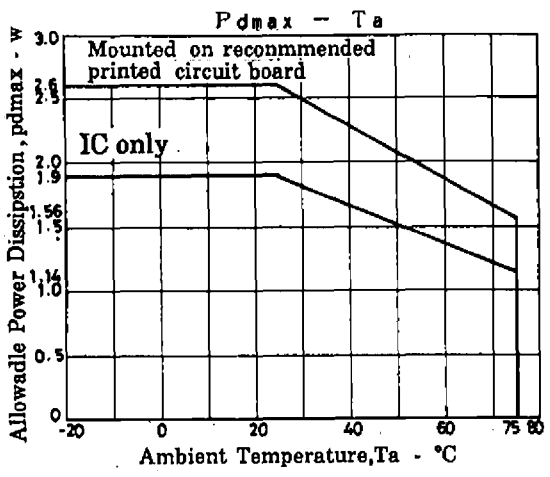


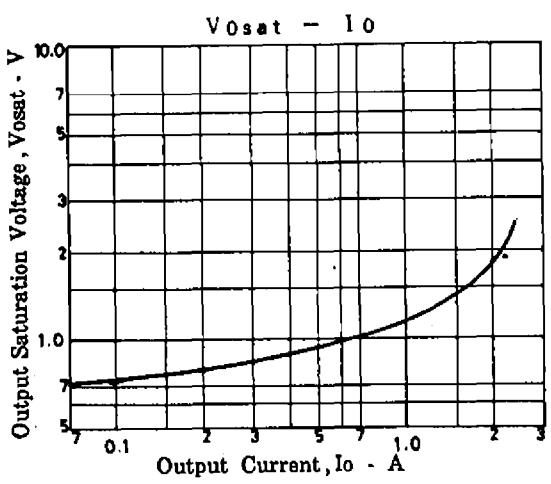
Unit (resistance : Ω)

Pin Assignment

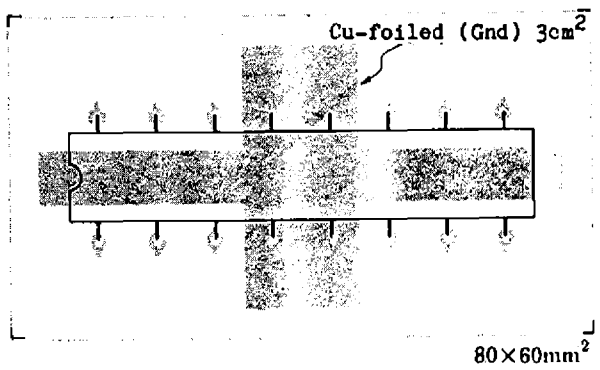


(Note) V_{CC} (pins 1,9) is shorted internally.





Recommended Printed Circuit Pattern



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