		Monolithic Digital IC
	NO.1188D	LB1231 Series
SANYO		High-Voltage, Large Current Darlington Transistor Array

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Ordering number: EN 1188D

The circuit configuration of this IC is of 7-channel Darlington transistor array consisting of NPN transistors. It is especially suited for use in hammer drivers and lamp, relay drivers. It contains spark killer diodes against L load.

Features ні	.gh-voltage (V _{CEO} ≧50V),large-	current (I _C max=500mA) dr	ive	
	LB1231 . Drivable b	y TTL, M	lOS output		
	LB1232 . Contains b	ase curr	ent limiting resistors,	Zener di	odes for
	level shif				
	. Direct dri	vable by	24V P MOS.		
	LB1233 . Contains b	ase curr	ent limiting resistors.		
			TTL, C MOS output.		
•	LB1234 . Contains b	ase curr	ent limiting resistors.		
	. Direct dri	vable by	C MOS, P MOS output.		
Absolute Max	timum Ratings at Ta=2	5°C			unit
				FO	
Output Supply Voltage		V _{OUT}	D - 11	50	V
Output Current		IOUT	Per unit	500	mA
Input Supply Voltage		v_{IN}	LB1232/33/34	30	v
Input Current		IIN	LB1231 only	25	mA
GND Pin (Current	IGND	7ch simultaneously on,	2.8	А
			f=10Hz,duty,=23%		
Allowable Power Dissipation		Pdmax		1.5	W
Operating Temperature		Topr	-2	0 to +75	°C
Storage I	emperature	Tstg	-40	to +150	°C

Allowable Ope	rating Condition	ns at	Ta=25°C			unit
	ply Voltage	VOUT			50	v
Input "H" L	evel Voltage	v_{IH}	LB1232	I _{OUT} =350mA	11 to 3 0	v
			LB1233	IOUT=350mA	3 to 30	v
			LB1234	IOUT=350mA	5 to 30	v
Input "L" L	evel Voltage	v_{IL}	LB1231/33	Au(100בIoUT	-0.3 to +0.3	v
			LB1232	IOUT≦100µA	-0.3 to +6.0	v
			LB1234	IOUT≦100µA	-0.3 to +0.7	v





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LB1231,1232,1233,1234

Electrical Characteristics	at Ta=25°	°C	min	typ	max	unit
Output Leak Current	IOFF	V _{OUT} =50V		-4-5	100	٦
Output Voltage	VOHL	IIN=0.25mA,IOUT=100mA		0.9	1.1	v
	V _{OH2}	$I_{IN}=0.35$ mA, $I_{OUT}=200$ mA		1.1	1.3	v
	V _{OH3}	$I_{IN}=0.5$ mA, $I_{OUT}=350$ mA		1.3	1.6	v
· ·	VOH4	IIN=lmA,I _{OUT} =400mA			2.4	v
Input Voltage	v_{IN}	LB1231 I _{IN} =1mA		1.35	1.7	v
Input Current	v_{IN}	LB1232 VIN=17V		0.82	1.25	mA
		LB1233 VIN=3.85V		0.93	1.35	mA
		LB1234 V _{IN} =5V		0.35	0.5	mA
		LB1234 VIN=12V		1.00	1.45	mA
Spark Killer Diode Leak Currnet	IR(S)	$V_R(s) = 50V$			100	AL
Spark Killer Diode 🗇 🛷	VF(S)1	I _{F(S)} =350mA			2.0	v
Forward Voltage	$V_{\rm F}({\rm S})2$	$I_F(S) = 400 \text{mA}$			2.4	v



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Unit (resistance: Ω)



LB1232



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Unit (resistance: Ω)

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LB1233



LB1234



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