

Ordering number: EN 1042F

Monolithic Digital IC

SANYO	No.1042F	LB1211 Series
General-Purpose Transistor Array		

The LB1211 series are general-purpose transistor arrays containing 7 channels (5 channels : LB1217 only). They are especially suited for driving LEDs, lamps, small-sized relays, etc. The transistors can be standardized.

Features

- Common-emitter 7 channels. LB1211,1212,1213,1214
- Common-collector 7 channels. LB1215,1216
- Independent 5 channels LB1217
- Built-in base current limiting resistors. LB1212,1213,1214,1216
- Built-in Zener diodes for level shift. LB1212
- Capable of being direct driven with TTL, CMOS, PMOS, etc.
- Wide operating voltage and temperature ranges

Absolute Maximum Ratings at Ta = 25°C

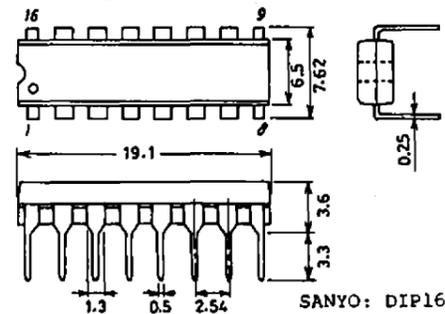
				unit
Output Supply Voltage	V _{OUT}	LB1212/13/14 only	-0.5 to +50	V
Collector to Emitter Voltage	V _{CEO}	LB1211/15/16/17 only	35	V
Collector to Base Voltage	V _{CBO}	LB1211/15/16/17 only	50	V
Output Current	I _{OUT}		200	mA
Input Voltage	V _{IN1}	LB1212/13/14 only	-0.5 to +30	V
	V _{IN2}	LB1216 only	-0.5 to +45	V
Input Current	I _{IN}	LB1211/15/17 only	25	mA
GND Pin Current	I _{GND}		500	mA
Allowable Power Dissipation	P _{d max}		960	mW
Operating Temperature	T _{opr}		-20 to +75	°C
Storage Temperature	T _{stg}		-40 to +150	°C

Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
Output Voltage	V _{OUT1}	I _{IN} = 1mA, I _{OUT} = 10mA			0.2	V
	V _{OUT2}	I _{IN} = 2mA, I _{OUT} = 100mA			0.8	V
	V _{OUT3}	LB1212/13/14 only I _{IN} = 3mA, I _{OUT} = 100mA			0.8	V
Output Leakage Current	I _{OFF}	V _{IN} = 0V, V _{OUT} = 25V			10	μA
Output Sustain Voltage	V _{OUT (sus)}	I _{OUT} = 100mA	35			V
DC Current Gain	h _{FE1}	V _{OUT} = 10V, I _{OUT} = 10mA LB1212/13/14 only	50		500	
	h _{FE2}	V _{OUT} = 10V, I _{OUT} = 10mA LB1211/15/16/17 only	70		500	

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Package Dimensions 3064
(unit : mm)



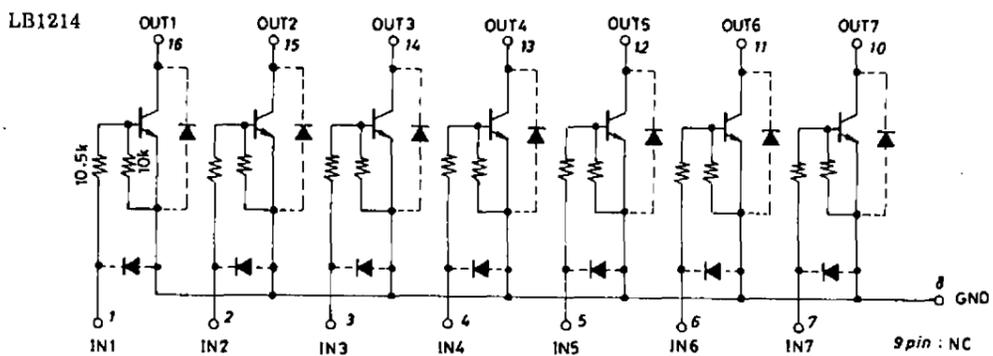
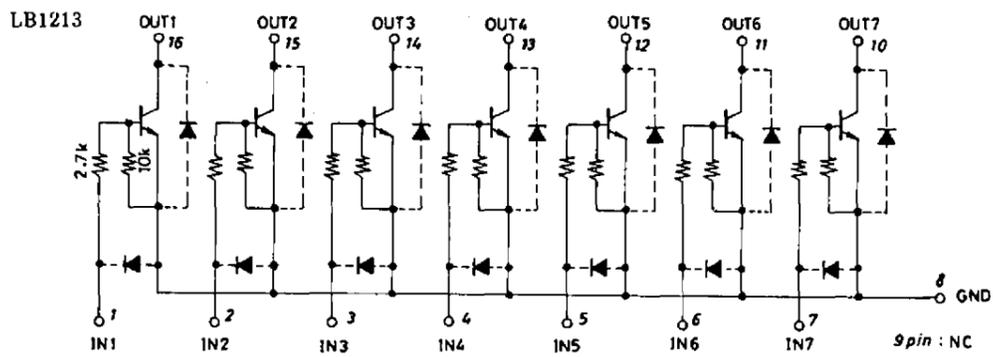
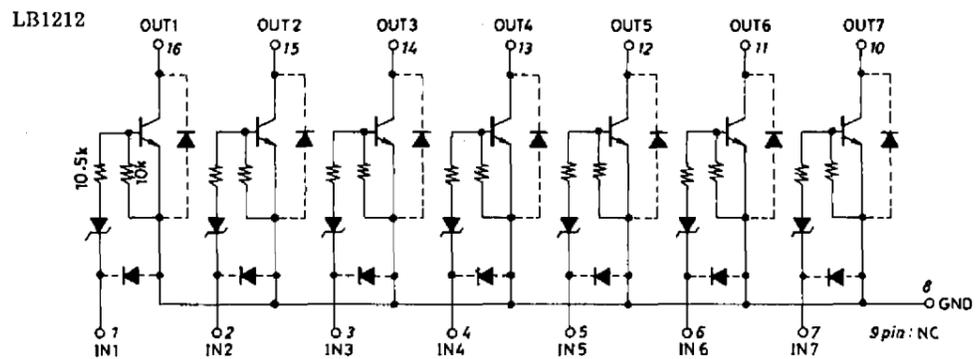
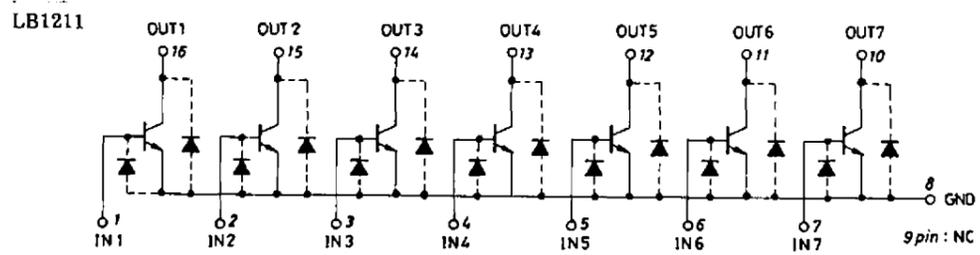
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 N010TS / 4050YT / 4078TA / 7067KI / 3295KI / 7072KI, TS No.1042-1/4

LB1211,1212,1213,1214,1215,1216,1217

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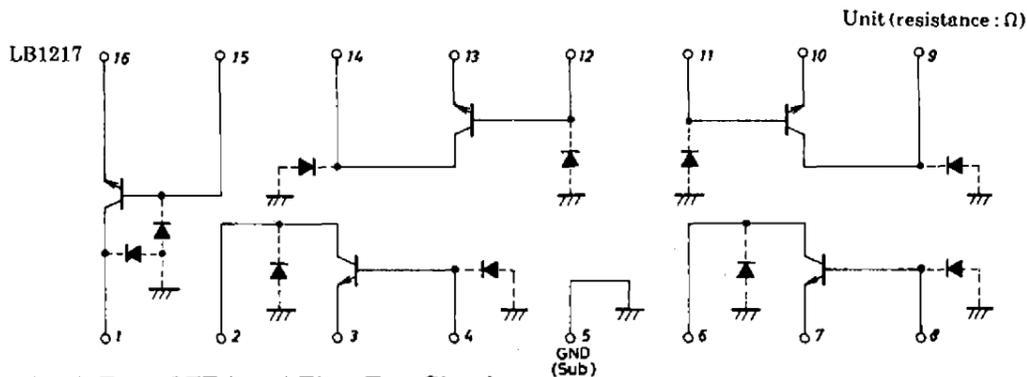
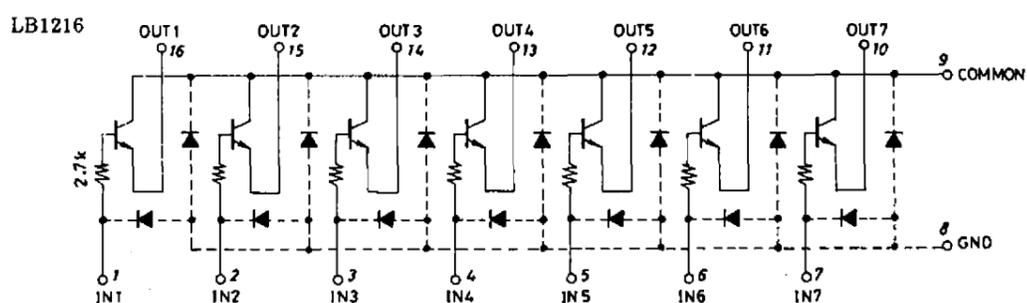
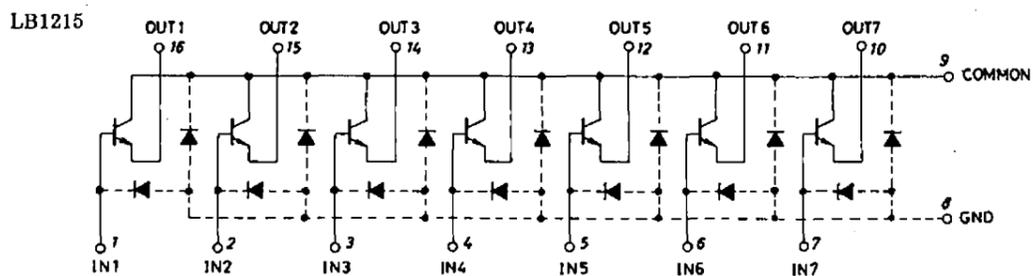
			min	typ	max	unit
Input Voltage	$V_{IN(on)}$	$I_{IN}=1mA, I_{OUT}=10mA$ LB1211/15/16/17 only	0.4			V
Turn-ON Time	t_{ON}	Refer to Test Circuit.		50		ns
Turn-OFF Time	t_{OFF}	Refer to Test Circuit.		200		ns

Equivalent Circuit

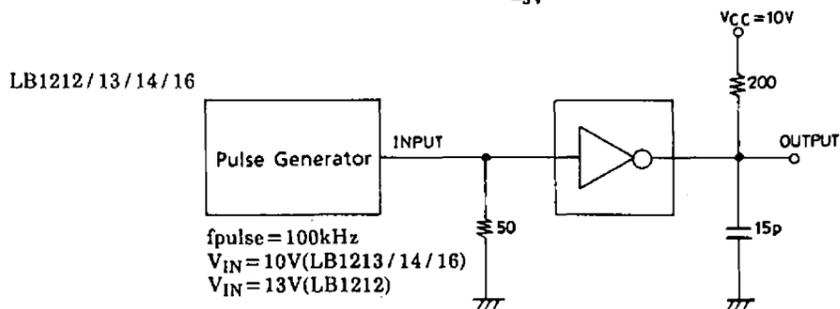
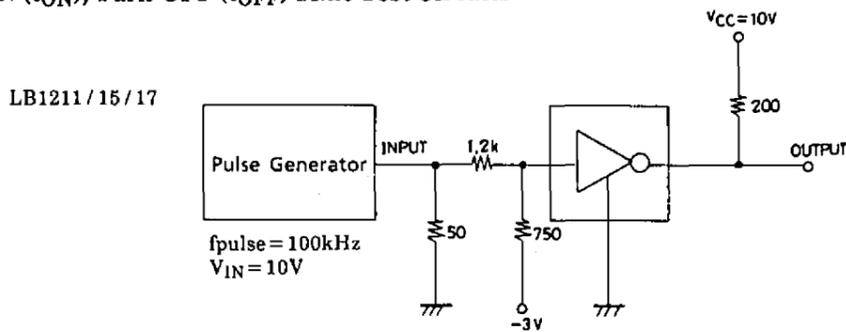


Unit (resistance : Ω)

LB1211,1212,1213,1214,1215,1216,1217

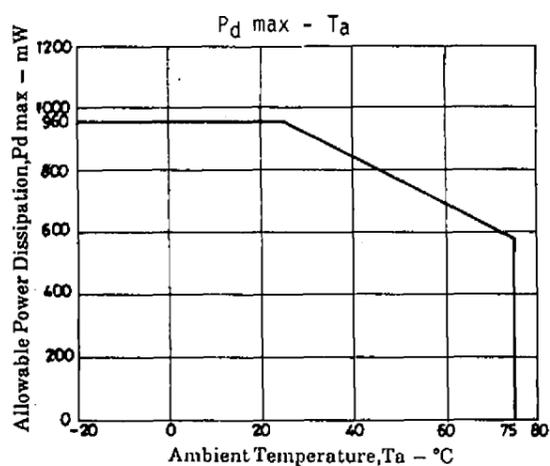
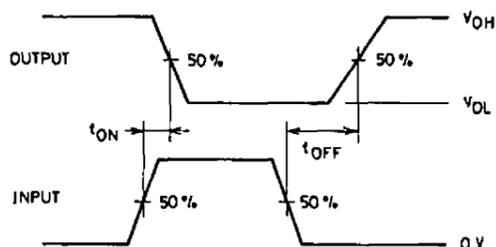


Turn-ON (t_{ON}), Turn-OFF (t_{OFF}) Time Test Circuits



Unit (resistance: Ω , capacitance: F)

Input/Output Waveforms



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