Monolithic Digital IC

# LB1213M General-Purpose Transistor Array

## Overview

The LB1213M is a general-purpose transistor array containing 7 channels. It is especially suited for driving LEDs, lamps, small-sized relays, etc.

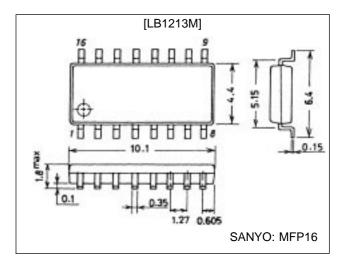
### **Features**

- Common-emitter 7 channels.
- Built-in base current limiting resistors.
- Capable of being direct driven with TTL, CMOS, PMOS, etc.
- Wide operating voltage and temperature ranges
- Miniflat package permitting sets to be small-sized.

## **Package Dimensions**

unit : mm

#### 3035A-MFP16



## **Specifications**

#### Absolute Maximum Ratings at $Ta = 25^{\circ}C$

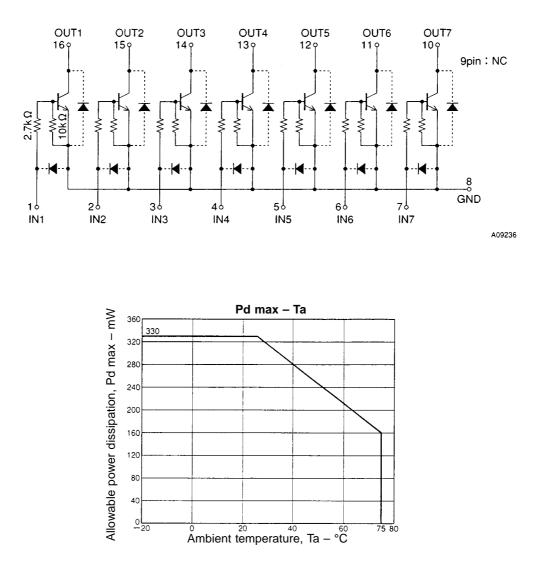
Parameter	Symbol	Conditions	Rating	Unit
Output supply voltage	V <sub>OUT</sub>		20	V
Output current	IOUT	Per unit	100	mA
Input supply voltage	V <sub>IN</sub>		10	V
Allowable power dissipation	Pd max		330	mW
Operating temperature	Topr		-20 to +75	°C
Storage temperature	Tstg		-40 to +125	°C

#### Electrical Characteristics at $Ta = 25^{\circ}C$

Parameter	Symbol	Conditions	min	typ	max	Unit
Output voltage	V <sub>OUT</sub> 1	V <sub>IN</sub> = 5 V, I <sub>OUT</sub> = 5 mA			0.1	V
	V <sub>OUT</sub> 2	V <sub>IN</sub> = 5 V, I <sub>OUT</sub> = 50 mA			0.5	V
Input current	I <sub>IN</sub>	I <sub>IN</sub> = 5 V		1.6	2.3	mA
Output sustain voltage	V <sub>O(SUS)</sub>	I <sub>OUT</sub> = 50 mA	20			V
Output leakage current	I <sub>OFF</sub>	V <sub>IN</sub> = 0 V, V <sub>OUT</sub> = 20 V			10	μA
DC current amplification factor	h <sub>FE</sub>	V <sub>OUT</sub> = 10 V, I <sub>OUT</sub> = 2 mA	50		500	

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#### **Equivalent Circuit**



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