

## 9600 Series Monostables

### REFERENCE TABLE

Code	Function	Pulse Width Variation (%) $V_s$ Temp	$V_s$ $V_{cc}$	Number of Inputs Positive	Negative	Resettable	Min. Output t <sub>pw</sub> ns	Power Dissipation mW	Stock No.
9600DM	Single	±1.5	±1.5	3	2	\	75	125	35782G
9600PC	Retriggerable								35783E
9601DC	Single	±2.7	±1.0	2	2	\	50	125	35784C
9601PC	Retriggerable								35785A
9602DC	Dual	±1.5	±1.5	1	1	\	72	250	35786X
9602PC	Retriggerable								35787H

### GENERAL DESCRIPTION

The 9600 series monostable multivibrators provide an output pulse whose duration and accuracy is a function of the external timing components. The 9600 series have excellent immunity to noise on the  $V_{cc}$  and ground lines. The 9600 series uses TTL for high speed and high fan out capability and is compatible with all members of the Fairchild TTL family.

### 9600 RETRIGGERABLE RESETTABLE MONOSTABLE

#### FUNCTIONAL DESCRIPTION

The 9600 monostable multivibrator has five inputs, three active HIGH and two active LOW. This allows leading edge or trailing edge triggering. The TTL inputs make triggering independent of input transition times. When input conditions for triggering are met, a new cycle starts and the external capacitor is rapidly discharged and then allowed to charge. An input cycle time shorter than the output cycle time will retrigger the 9600 and result in a continuous true output. Retriggering may be inhibited by tying the negation (Q) output to an active LOW input. The output pulse may be terminated at any time by connecting either or both reset pins to a LOW logic level pin. Active pullups are provided on the outputs for good drive capability into capacitive loads.

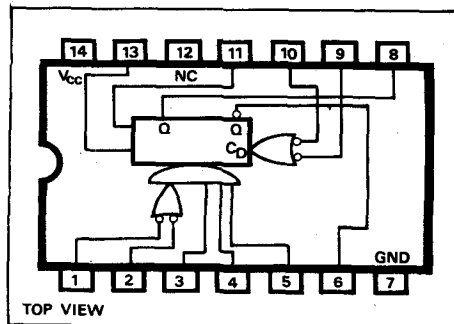
### FEATURES

- 74ns to  $\infty$  output pulse width range.
- Retriggerable 0 to 100% duty cycle.
- Resettable.
- TTL input gating - leading or trailing edge triggering.
- Complementary TTL outputs.
- Optional retrigger lock-out capability.
- Improved pulse width temperature stability.

### ABSOLUTE MAXIMUM RATINGS

Storage temperature	-65°C to +150°C
Temperature (ambient) under bias	-55°C to +125°C
$V_{cc}$ pin potential to ground	-0.5V to +8.0V
Input voltage (DC)	-0.5V to +5.5V
Input current	-30mA to +5.0mA
Voltage applied to output when output is HIGH	-0.5V to + $V_{cc}$
Current into output when output is LOW	50mA

### CONNECTION DIAGRAM



See outline drawing Nos. 130 and 151 for dimensions.

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